Waste Excavation Plan

PRE-1965 FOOTHILLS LANDFILL
Las Cruces, New Mexico

Submitted To:

New Mexico Environment Department
Solid Waste Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469
505.827.0197

Prepared For:

City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
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June 2019

PSC Project #: 01003419

PARKHILLSMITH&COOPER

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ENGINEERING CERTIFICATION

I hereby certify that a qualified Parkhill Smith & Cooper (PSC) professional engineer under my direct supervision has visited the facility; and attest that this Waste Excavation & Health and Safety Plan has been prepared in accordance with sound engineering practices, and applicable federal, state, and local requirements.

Engineer: Charles W. Fiedler, P.E.
Associate, Sr. Practice Leader, Parkhill, Smith & Cooper

Address: 333 Rio Rancho Blvd, NE, Ste 400
Rio Rancho, New Mexico 87124

Signature:

Date: June 21, 2019

Registration Number: NM 19731

CHARLES WALTER FIEDLER
NEW MEXICO
19731
6.21.19
PROFESSIONAL ENGINEER

1.0 INTRODUCTION

The Pre-1965 Foothills Landfill (the "Landfill") is located in Las Cruces, New Mexico (NM), proximate to the intersection of East Lohman Avenue and Paseo de Onate Road in Dona Ana County, NM. Municipal waste was interred on the property during the late1950s (Shipman/Foley & Associates, 2017). The landfill was closed and covered in the early 1960s. No state or federal regulations governing the closure of landfills were in place at that time.

The City of Las Cruces (City) commissioned several investigations to characterize the geometry and composition of the wastes and soil vapors that are present on the property. Waste characterization of the site indicates that wastes are typical of household wastes and construction and demolition wastes. It has been estimated that approximately 100,000 cubic yards (CY) of municipal waste are present in four separate locations at the site.

The City intends to assure the safe and proper management and disposition of excavated waste, and to develop the property with commercial tracts. The City has retained Parkhill, Smith & Cooper (PSC) to assist with waste excavation planning for the project.

New Mexico Solid Waste Rules (the "Rules") provide that no person shall *"excavate or trench a closed cell or solid waste disposal area without written approval by the department"* (20.9.2.10.A(15) NMAC). The NMED/SWB requires non-emergency excavations of solid waste disposal areas greater than 120 cubic yards (cy) to be approved in a "Waste Excavation Plan" (WEP). The WEP presented herein is intended to address the requirements of 20.9.2.10.A(15) NMAC, and SWB's "Waste Excavation Plan Checklist" (**Attachment 1**), and is hereby submitted for SWB review and approval.

1.1 Site Location and Ownership

The former landfill area encompasses approximately 44 acres of land located in eastern Las Cruces in the southeast and southwest corners of the intersection of East Lohman Avenue and Paseo de Onate in the SW ¼ of Section 10 of Township 23 South, Range 2 East, Dona Ana County, NM. The approximate geographic coordinates for the center of the site are **32.321098° latitude N and 106.727493° longitude W** (**Figure 1**)**.** The location of the property is shown on **Figure 1**.

The combined "solid waste disposal area" (20.9.2.7.S(10) NMAC) occupies 13 acres. Municipal wastes are located in four discrete areas on two platted land tracts owned by the City and shown in **Figure 2**. Waste Areas 1, 2 and 3 are on platted tract Parcel 1 (Tract 9ar2). Waste Area 4 (not part of this WEP) is located on Parcel 1 (Tract 9cr1). A copy of the March 2018 ALTA/NSPS Land Title Survey folio is included as **Attachment 9**.

1.2 Facility Description

The land is undeveloped and is situated on a topographic ridge that lies between the unnamed arroyo to the south and South Fork Arroyo to the north (USGS, 1996). Commercial properties are present to the north of the site and residential properties are present to the south. It has been mentioned that the City commissioned several investigations of the property and has determined that buried wastes are present in four separate areas comprising approximately 13 acres within a gross area of approximately 44 acres. The projected lateral limits and thickness of waste and soil cover at Waste Areas 1-4 are shown on the maps in **Figures 3** and **4**. Waste Areas 1-3 lie south of East Lohman Avenue and east of Paseo de Onate street and north of the unnamed arroyo to the south. Waste Area 4 is located south of East Lohman Avenue, west of Paseo de Onate and north of the arroyo. The City plans to perform waste excavation and site restoration only on Waste Areas 1-3 at the present time.

1.3 Background Summary – Site Investigations

Souder-Miller & Associates (SMA, 2002) performed limited media sampling and analysis at Waste Areas 2 and 3 at the site in 2002. A copy of the report from this investigation is included as **Attachment 5**. This investigation consisted of shallow soil hand excavation and collection and analysis of shallow soil and waste media samples from locations shown on the maps in **Figures 5, 6, 7 and 8.** Analytical results from the SMA 2002 investigation are summarized on **Tables 1 and 2**.

- **Figure 5**.--Asbestos Containing Materials. A total of 37 waste samples were collected from 12 locations and analyzed for asbestos containing materials (ACM). Analytical results are included in **Table 1**. Of the 37 waste samples collected and analyzed, four were found to contain asbestos mineral species in concentrations exceeding 10%.
- **Figure 6**.—Methane. Shallow soil vapor samples were collected at 5 locations and field tested for methane content. Results are summarized in **Table 2**. No methane or methane metabolic carbon dioxide were detected.

- **Figure 7**.—RCRA 8 Metals. Soil samples were collected for analysis of RCRA 8 metals from four locations. Samples were analyzed using TOTAL METALS using EPA Methods 6010/7471. Analytical results are summarized in **Table 2** and indicate that none of the samples contained a RCRA 8 toxic metal in a concentration exceeding the NMED Soil Screening Guidelines for Residential exposure. One sample (LM-3) contained a lead concentration (163 mg/kg TOTAL, 8.15 mg/L TCLP) that narrowly characterized as toxic (5mg/L TCLP standard) based upon Toxic Contaminant Leaching Procedure (TCLP) equivalency.

- **Figure 8**.—TPH, VOC's, PCB's and Pesticides. Soil samples were collected from 6 locations (WO 1-6) and analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 8015. No gasoline range, diesel range or motor oil range TPH were detected. Three soil samples (HC 1-3) were collected and analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260. No VOCs were detected. One soil sample (CP-1) was collected and analyzed for Polychlorinated Biphenyls (PCBs), and pesticides by EPA Method 8081/8082. None were detected. Summary analytical results are presented in **Table 2.**

SCS Engineers (2003) conducted shallow soil vapor sampling and field screening in 34 locations and at 53 manholes, air space sampling sites at the subject property and at adjacent properties in 2003. No methane was detected in any of the soil vapor or manhole airspace sites.

Terracon (2006) performed limited media sampling and analysis at the property in 2006. A copy of the report from this investigation is included as **Attachment 6.** The Terracon 2006 investigation included collection and analysis of soil and waste samples from Waste Areas 2, 3 and 4. Since the City plans to perform waste removal and site restoration only at Waste Areas 1, 2 and 3 at this time, only analytical data from the Terracon 2006 report on Waste Areas 2 and 3 are included in this WEP.

The Terracon 2006 investigation consisted of shallow soil hand excavation and collection and analysis of shallow soils and waste media samples from 20 locations in Areas 2 and 3, shown on the maps in **Figures 9 and 10**. Generally, one soil sample was collected from each of the 20 locations and analyzed for TOTAL LEAD, and one or two waste samples were collected and analyzed for ACM.

- **Figure 9**.—Asbestos Containing Materials. 23 waste samples were collected from 20 locations in and around Waste Areas 2 and 3 (SN 1-20) and analyzed for ACM. Analytical results are summarized in **Table 1**. Asbestos mineral species were detected in concentrations exceeding 10% in 4 of the samples collected from within proposed waste excavation areas. ACM was detected in an additional 4 samples that were from areas outside the proposed excavation areas.
- **Figure 10**.—Lead. 20 soil samples were collected from 20 locations in and around Waste Areas 2 and 3 (B 1-20) and analyzed for TOTAL LEAD by EPA Method 6010B. Analytical results are summarized in **Table 3** and indicate that none of the samples contained lead in a concentration exceeding the NMED Soil Screening Guidelines for Residential exposure; none characterized as toxic (> 5mg/L) based upon Toxic Contaminant Leaching Procedure (TCLP) equivalency.

Terracon (2011) excavated backhoe test pits at 24 locations in and around Waste Areas 1, 2, 3 and 4 to determine lateral limits and thickness of waste and soil cover at each location. **Terracon (2016)** revisited the site and advanced 30 soil borings to provide additional information on soil cover thickness and waste geometry. Copies of the reports containing data from the 2011 test pit investigation and the 2016 soil boring investigation are included as **Attachment 7 and Attachment 8**, respectively. No additional soil or waste media sampling and analysis was conducted during these investigations. The results of the waste thickness and soil cover measurements were compiled to prepare the lateral geometry and thicknesses of waste and soil cover projections that are presented in **Figures 3** and **4**. These projections indicate that approximately 100,000 cubic yards (CY) of waste and approximately 48,000 CY of soil cover are present at Waste Areas 1-4.

The Terracon (2016) investigation report included volumetric estimates of total waste and cover present at Waste Areas 1-4 that were close to the volumes calculated and presented in this submittal (98,000 CY waste and 51,000 CY cover); however, there were significant differences between waste and cover volume estimates for the individual waste areas. The Terracon (2016) estimates were prepared by taking the plan area of each Waste Area and multiplying by the arithmetic mean of the waste and cover thickness determinations for that Waste Area. PSC used the projections of iso-thicknesses of waste and cover presented in **Figures 3** and **4** to estimate sub areas of waste thickness (areas between the waste or cover thickness contours); these areas

were multiplied by the mean projected thickness between the contours and those products were summed to arrive at waste and cover volume estimates for each Waste Area. These quantities are presented in **Table 4**. Based upon this analysis, it is estimated that approximately 48,000 CY of waste and 27,000 CY of soil cover are present in Waste Areas 1-3.

2.0 WASTE REMOVAL AND OVERSIGHT

2.1 Approach

The City of Las Cruces anticipates that waste excavation may ultimately be performed on Waste Areas 1-4; however, this Waste Excavation Plan includes proposed methods and resources to excavate wastes only in Areas 1, 2 and 3 at this time. The City will self-perform excavation of cover soils and waste and will contract with a Certified Waste Hauler to transport the waste to the Corralitos Landfill. The proposed scope of work includes removal and stockpiling of soil cover, excavating and transporting of waste from the site to Corralitos Landfill and backfilling and preliminary levelling (no backfill import) of each site.

The City of Las Cruces anticipates that the work sequence will generally begin with identification and safeguarding of underground utilities in Waste Areas 1, 2 and 3. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented for operations at Waste Areas 1, 2 and 3 to prevent stormwater runon to and runoff from the excavation sites. An additional stormwater management plan will be prepared if the City elects to implement excavation operations in Waste Area 4 at a later date. Practically recoverable soil cover will be stockpiled in each area prior to excavation and will be placed back in the excavations after waste removal.

Where waste thickness and depth of excavation dictates, the excavations will proceed from the highest points of the slopes to be excavated, downslope, to maintain excavation slope stability. If necessary, benching will be implemented during excavation, wide enough to accommodate excavation equipment, and to ensure slope stability.

After waste excavation and backfilling of salvaged soil cover, each site will be minimally levelled and groomed to minimize terrain hazards and stormwater sediment transport from each site.

2.2 Schedule

The NMED SWB will be notified prior to commencement of the activities detailed in this Plan. Waste excavation is expected to require a minimum of 65 working days (i.e., Monday through

Friday). Working hours are anticipated to be between 8:00 am and 4:00 pm. Safety meetings will be conducted prior to the commencement of pre-excavation activities, prior to the beginning of work on a daily basis and prior to beginning any tasks that involve changes in job site risks.

A tentative schedule of activities is set forth as follows:

- June 7, 2019.—Submission of revised FINAL WEP to NMED-SWB
- June 7, 2019 – July 15, 2019.—NMED-SWB review of Final WEP
- July 15 – July 17, 2019.—Prepare and Conduct Public Meeting
- July 18 – Oct. 9, 2019.—Procurements for Waste Hauler, Onsite Support, Equipment
- Oct. 10 – Oct 16, 2019.—Set up Site Security, Stage Equipment on Site, UG Utility Clearance
- Oct. 17 – Jan. 14, 2020.—Excavation and Waste Transport/Disposal
- Jan 15 – Feb 25, 2020.—Prepare and Submit Waste Excavation Completion Document
- Feb 26 – June 30, 2020.—NMED-SWB Review, Approval of Completion Document

The proposed project schedule is presented graphically in a Gantt chart and is included as **Attachment 11**.

2.3 Site Preparation and Waste Excavation

Site preparation and waste excavation activities will be performed in compliance with NMED and Occupational Safety and Health Association (OSHA) requirements. City-provided personnel and heavy equipment will be used for site preparation and excavation of the waste. All on site personnel who will perform the excavation work and environmental monitoring of the excavations will be OSHA 40-hour HAZWOPER certified. Additionally, at least one on site worker will be an Asbestos Contractor Supervisor, Certified in accordance with requirements set forth in Section 206 Toxic Substances Control Act, Title II. Based upon prior site characterization data, no exploratory excavation will be required. The City proposes to use a Cat 950M front end loader to remove soil cover from the wastes and to use a CAT 349 hydraulic excavator with a thumb attachment or similar equipment to load wastes into contractor provided minimum 12 cubic yard (CY) over-road dump trucks for transit to Corralitos Landfill. Waste will be managed directly into the haul trucks, with no staging of wastes on site. The waste will then be transported by a Certified Waste Hauler to the Corralitos Landfill, located approximately 18 miles west of Las Cruces. A minimum 12 CY roll-off dumpster will be staged on location for contingency purposes to hold non-complying wastes, if such are encountered.

Depth of excavation will vary throughout excavation Areas 1-3, but is not anticipated to exceed 15 feet. The extent of the waste excavation is predicated on site characterization data and conservatively designed excavation slopes of 2H:1V. The City's engineer of record will make periodic inspections to ensure slope stability and the stability of the waste mass. If slopes are determined to be unsafe, the engineer of record may recommend the inclusion of additional benching, shoring, or other measures to ensure slope stability.

Final determination of quantities of waste excavated will be tracked as truck counts by onsite personnel during excavation, as well as by scale weight at the Corralitos Landfill. It is anticipated that excavations will be broad and shallow, facilitating both the proposed maximum 2H:1V slopes and allow for the dilution of any harmful landfill gases released during excavation activities by air flow. Waste will be removed to clean native soils below.

Based upon the site characterization data, it is anticipated that the only regulatory action level media that are known to exist in the waste (ACMs) will be found in de minimis quantities relative to the bulk mass and volume of waste in place. Therefore, it is anticipated that all of the waste will be transported off-site to the Corralitos Landfill west of Las Cruces. Contingency plans for the project include actions to segregate non-complying waste and to containerize and transport to appropriate facilities in accordance with Special Waste or Hazardous Waste regulatory protocol. The on site Asbestos Contractor Supervisor and HAZWOPER-trained personnel will visually screen waste during the excavation to identify potentially hazardous materials such as drums with unknown contents, materials with free liquids, and non-de minimis quantities of suspected ACM's.

The City asserts that the estimated 48,000 CY of combined waste in place in Waste Areas 1-3 comprises a single waste body. Testing of highly select suspected ACM samples collected from the waste indicates that ACM was present in a distinct minority of suspect ACM samples. Considering potential ACM as a component of the waste body, approximately 4,800 CY of ACM would have to be present to approach the regulatory trigger level of 10% for the waste body. Therefore, ACM within the waste, considered collectively, does not approach a 10% of the total waste body. Nevertheless, the City proposes to staff the project with operators trained to identify and properly manage and dispose of ACM during the excavation.

If, in the sole opinion of the City's on site Asbestos Contractor Supervisor, suspected ACM in non de minimus and practically segregable quantities are exhumed, the suspected ACM will be managed in accordance with Best Management Practices for asbestos. Materials will be wetted prior to removal from the excavation and as needed to control airborne dust throughout the handling and transport process. Materials will be staged on a clean, flat and level ground surface away from the excavation for sorting. Properly trained and certified City staff equipped with appropriate personal protective equipment (PPE) will hand segregate suspected ACM and will properly bag, label and stage materials for transport to the Special Waste Landfill.

The City proposes to transport suspected ACM to the South Central Solid Waste Authority's Corralitos Landfill, a facility which is authorized to accept asbestos, as well as other special wastes that may be found, including Petroleum Contaminated Soil and Spill from Chemical. It is anticipated that South Central Solid Waste Authority, also a Registered Hauler in New Mexico, will provide transport services for the regular municipal waste, as well as any Special Wastes that are removed from the site. In the event that another waste hauler is retained to transport municipal waste, or ACM waste to the landfill, the City will retain a NMED-SWB licensed commercial hauler. A list of currently registered commercial haulers registered in New Mexico is included in **Attachment 10**.

The amount of waste and soil to be excavated from Waste Areas 1, 2 and 3 is estimated to be approximately 62,000 cubic yards. The type of waste that will be excavated is anticipated to be primarily composed of municipal solid waste (MSW) and construction and demolition debris (C&D). It is not anticipated that these operations will produce more dust than typical landfill activities. Excavation will be conducted in accordance with dust control protocol set forth in City Ordinance Chapter 32-302 – Wind Erosion Control. Generally, to ensure that dust generation is kept to a minimum, excavation activities will not be performed during periods of high winds or inclement weather. Dust suppression will be performed using the City's water truck. Water will be used adequately to keep fugitive dust to a minimum, while avoiding excessive wetting of the waste or underlying soils.

2.4 Oversight and Monitoring

Excavation oversight will be performed by the City in compliance with this Plan, the NMED Rules, and OSHA. The City will provide the excavation equipment and equipment operators for waste excavation activities. City employees or contractors will provide environmental air quality

monitoring and documentation for the project. NMED representatives will be notified before waste excavation begins. All site work, including waste excavation, oversight and monitoring will be performed by persons with current OSHA HAZWOPER training. Monitoring activities will include landfill gas monitoring and visual waste screening.

2.4.1 Landfill Gas Monitoring

Landfill Gases: Landfill gas consists primarily of methane and carbon dioxide in approximately equal proportions. Methane (CH_4) and carbon dioxide (CO_2) are both colorless and odorless gases. The odor attributed to landfill gas is derived entirely from trace constituents. Methane is potentially explosive between 5% (lower explosive limit; LEL) and 15% (upper explosive limit; UEL) by volume in air if allowed to accumulate in confined spaces; and carbon dioxide is a simple asphyxiant. As the work is to be performed outdoors, the danger of excess amounts of landfill gas accumulating is very minimal.

As per industry standard landfill gas monitoring practices, if methane is detected in excess of 0.5% by volume in air (10% LEL), work will be halted until the concentration decreases below 0.5% by volume in air. (refer to Section 2.5)

As per industry standard landfill gas monitoring practices, work will be halted in the event that oxygen (O_2) concentrations reach a concentration of less than 19.5% by volume in the air until the concentration increases above 19.5% by volume in air. (refer to Section 2.5)

As per industry standard landfill gas monitoring practices, if hydrogen sulfide (H_2S) is detected in excess of 5 ppm, work will be halted until the concentration decreases below 5 ppm. (refer to Section 2.5)

In addition to methane, O_2, and H_2S, landfill gas may be monitored for the presence of CO_2, volatile organic compounds (VOCs), hydrogen sulfide (H_2S), and carbon monoxide (CO). Landfill gases will be monitored with a MultiRAE, or another equivalent device(s), continuously during excavation activities. Landfill gas data will be recorded every 15 to 30 minutes depending upon the activities being performed. The Health & Safety Plan included as **Attachment 4** presents additional information regarding the landfill gases to be monitored including symptoms of exposure, health hazards, and their threshold concentrations.

The MultiRAE allows for measurement of methane concentrations from 0 - 100% LEL, with a resolution of 1% of the LEL. The MultiRAE (or equivalent) will be calibrated in the field in accordance with the manufacturer's specifications prior to monitoring. Calibration documentation, and at a minimum, CH_4, O_2, and H_2S measurements will be recorded on the Landfill Gas Monitoring Log provided as **Attachment 2**.

2.4.2 Visual Waste Screening

Visual waste screening will be conducted by the City's equipment operators continuously during waste excavation. The City will provide an Asbestos Certified Supervisor Level Competent Person to identify and assess ACM's, direct proper handling, and stop work as necessary to properly address ACM issues during the excavation. Based upon the site characterization data, and exclusive of potential ACM's discussed above, it is not anticipated that unauthorized or hazardous waste will be encountered. However, if unauthorized or hazardous wastes are detected, excavation activities will cease and contingency activities will commence. Upon discovery of unauthorized or hazardous wastes, the NMED SWB will be notified within 24 hours; the waste will be segregated and restricted, and measures will be taken to assure proper cleanup, transport, and disposal of the waste in accordance with the Contingency Plan (**Attachment 3**).

2.5 Health and Safety

A site-specific Health & Safety Plan is provided as **Attachment 4**. The Health & Safety Plan summarizes site information, waste characteristics, hazard assessment, site safety, work limitations, and key project personnel and emergency phone numbers. The Health & Safety Plan includes a Hospital Location Map, and a list of key project personnel and emergency phone numbers. Should emergencies arise during this project, the landfill's NMED-approved Contingency Plan will be followed (**Attachment 3**).

3.0 PROJECT TERMINATION

Upon completion of waste excavation, a letter report will be provided to the NMED SWB summarizing the waste excavation activities and documenting the proper disposal of the excavated materials. Although not required pursuant to NMED-SWB Waste Excavation Plan documentation, the City of Las Cruces intends to collect "clean confirmation" soil samples from the sub-waste natural soils on the base grades of each excavation and to have the samples analyzed for regulated compounds. The number, locations and tested analytes of the confirmation samples will be determined by locations and analytical results of previous site

characterization samples that have been collected at the site. Additionally, samples may be collected on a general grid in each waste excavation area and tested for a general suite of analytes that may be associated with municipal waste. Confirmation sampling and analyses will be performed to demonstrate that environmental stresses have been removed from the sites adequate for commercial real estate diligence purposes.

4.0 REFERENCES

Souder, Miller & Associates, Feb 22, 2002, Phase II Environmental Site Assessment Report for the Parcel of Land Located at the Southeast Corner of Lohman Avenue & Paseo De Onate, Las Cruces, New Mexico: Consultant report prepared for the City of Las Cruces

Terracon, October 3, 2006, Limited Site Investigation, City of Las Cruces, Former Paseo De Onate Landfill, Tract 9cr1 and the Northwest Portion of Tract 9ac2, Lohman Avenue and Paseo De Onate, Las Cruces, Dona Ana County, New Mexico: Consultant report prepared for the City of Las Cruces

Terracon, August 8, 2011, DRAFT Limited Site Investigation, City of Albuquerque Property Former Landfill, Section 10, Township 23 South, Range 2 East, Las Cruces, New Mexico: Consultant report prepared for (Redacted) client

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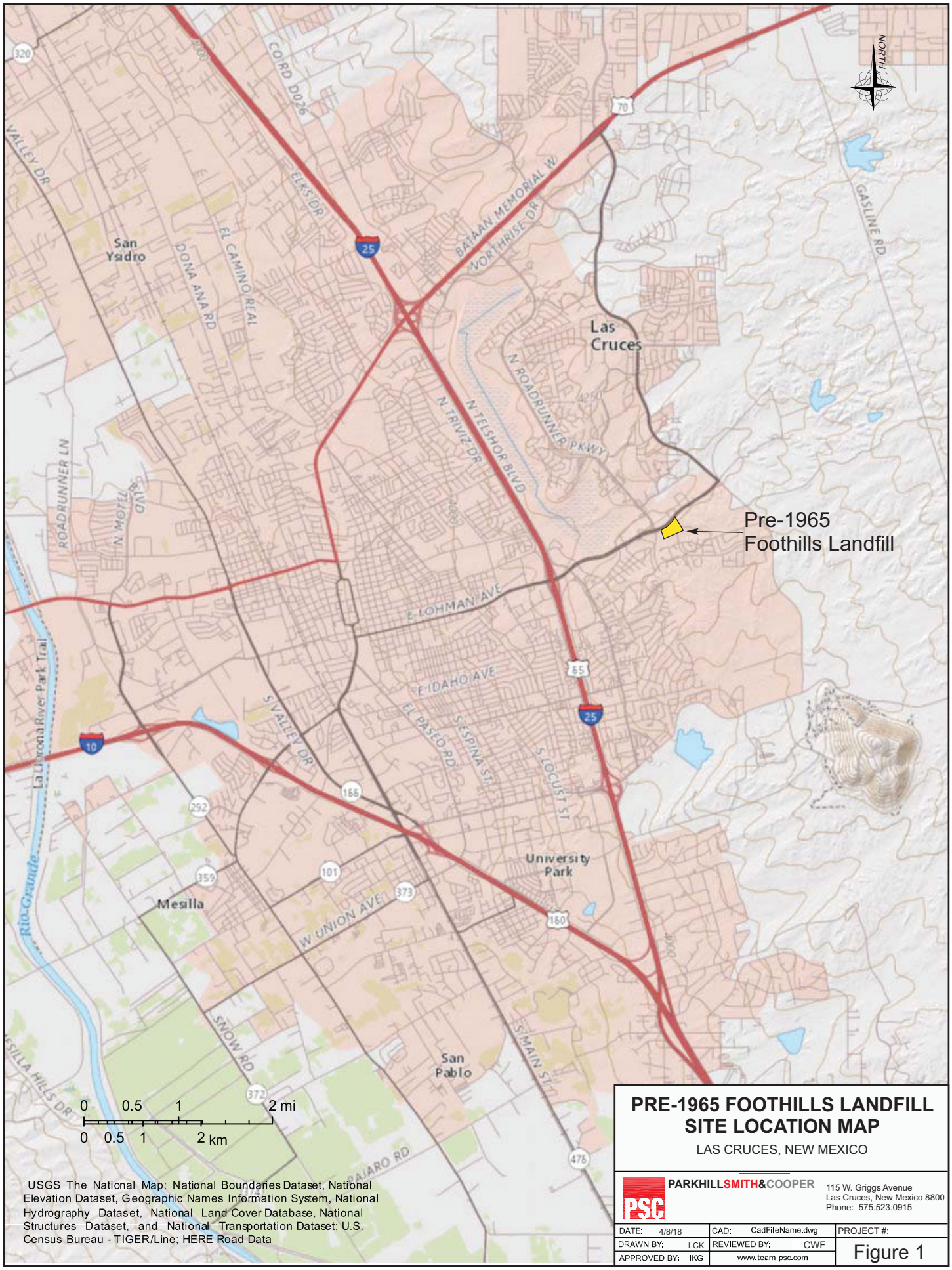
United States Geological Survey, 1996, Tortugas Mountain Quadrangle, New Mexico-Dona Ana County, 7.5-minute series topographic quadrangle map

SCS Engineers, July 28, 2003, Old Las Cruces Landfill Final Closure Plan, Dona Ana County, New Mexico, Final Report: Consultant report prepared for the U.S. Bureau of Land Management.

Shipman/Foley & Associates, Inc., February 13, 2017, Appraisal Report, Four Vacant Land Parcels, SW/c & SE/c E. Lohman Ave. & Paseo de Onate, Las Cruces, New Mexico, 88001: Consultant report prepared for Mr. Hames McNeely, Review Appraiser, City of Albuquerque, Real Property Division, Albuquerque, NM

FIGURES



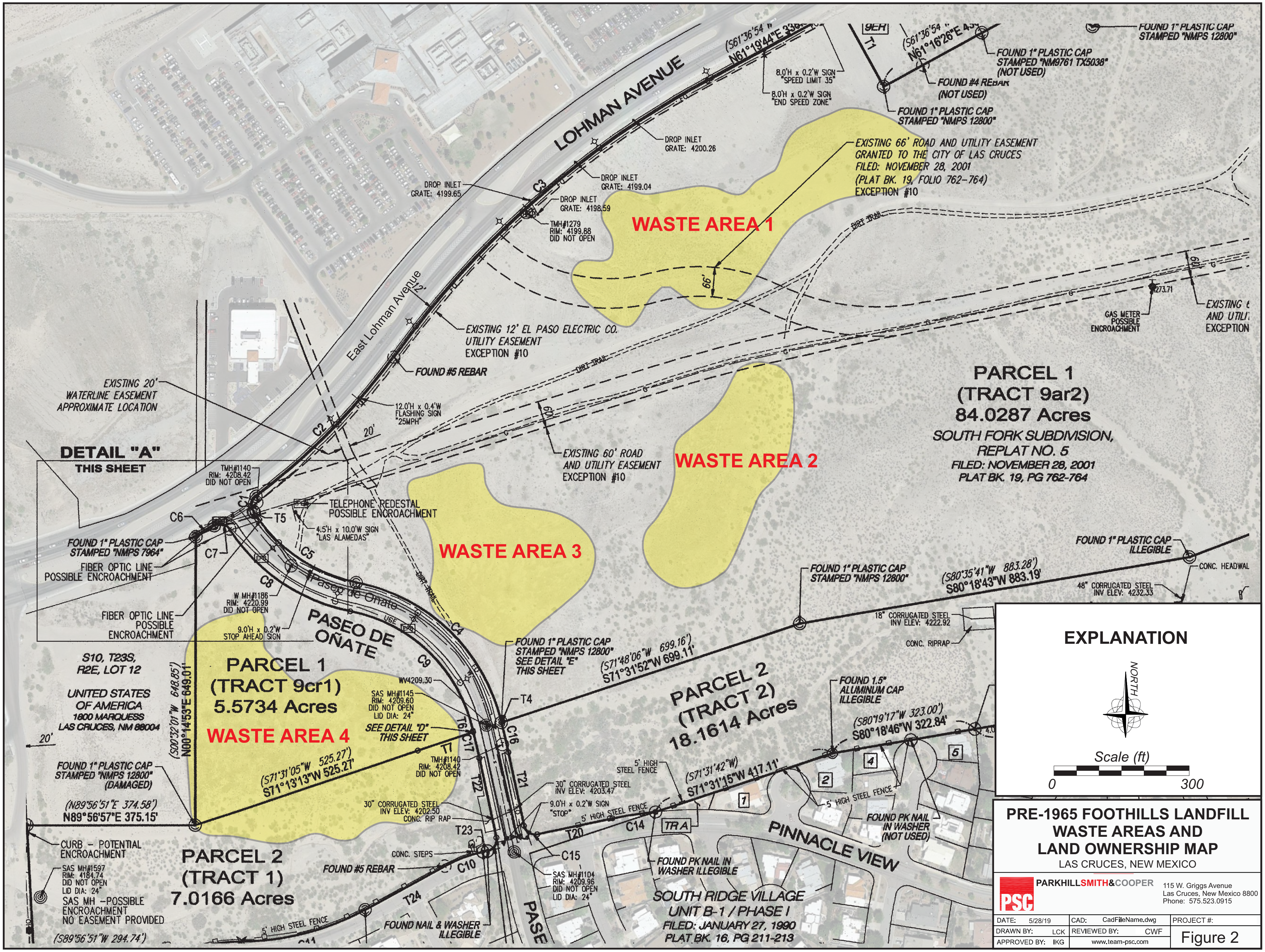
USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data

PRE-1965 FOOTHILLS LANDFILL SITE LOCATION MAP

LAS CRUCES, NEW MEXICO

PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915

DATE: 4/8/18	CAD: CadFileName.dwg	PROJECT #:
DRAWN BY: LCK	REVIEWED BY: CWF	Figure 1
APPROVED BY: IKG	www.team-psc.com	


LOHMAN AVENUE
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
WASTE AREA 4
PARCEL 1
(TRACT 9ar2)
84.0287 Acres
SOUTH FORK SUBDIVISION,
REPLAT NO. 5
FILED: NOVEMBER 28, 2001
PLAT BK. 19, PG 762-764
PARCEL 1
(TRACT 9cr1)
5.5734 Acres
PARCEL 2
(TRACT 2)
18.1614 Acres
PARCEL 2
(TRACT 1)
7.0166 Acres
PASEO DE OÑATE
Paseo de Oñate
PINNACLE VIEW
SOUTH RIDGE VILLAGE
UNIT B-1 / PHASE I
FILED: JANUARY 27, 1990
PLAT BK. 16, PG 211-213
S10, T23S,
R2E, LOT 12
UNITED STATES
OF AMERICA
1800 MARQUESS
LAS CRUCES, NM 88004
DETAIL "A"
THIS SHEET
EXISTING 66' ROAD AND UTILITY EASEMENT
GRANTED TO THE CITY OF LAS CRUCES
FILED: NOVEMBER 28, 2001
(PLAT BK. 19, FOLIO 762-764)
EXCEPTION #10
EXISTING 12' EL PASO ELECTRIC CO.
UTILITY EASEMENT
EXCEPTION #10
EXISTING 60' ROAD
AND UTILITY EASEMENT
EXCEPTION #10
EXISTING 20'
WATERLINE EASEMENT
APPROXIMATE LOCATION
TELEPHONE PEDESTAL
POSSIBLE ENCROACHMENT
FIBER OPTIC LINE
POSSIBLE ENCROACHMENT
FOUND 1" PLASTIC CAP
STAMPED "NMPS 12800"
FOUND #5 REBAR
(S71°48'06"W 699.16')
S71°31'52"W 699.11'
(S80°35'41"W 883.28')
S80°18'43"W 883.19'
(S71°31'05"W 525.27')
S71°13'13"W 525.27'
(N89°56'51"E 374.58')
N89°56'57"E 375.15'
(S71°31'42"W)
S71°31'15"W 417.11'
(S80°19'17"W 323.00')
S80°18'46"W 322.84'
(S00°32'01"W 648.85')
N00°14'53"E 649.01'
(S89°56'51"W 294.74')
EXPLANATION
NORTH
Scale (ft)
0
300
PRE-1965 FOOTHILLS LANDFILL
WASTE AREAS AND
LAND OWNERSHIP MAP
LAS CRUCES, NEW MEXICO
PARKHILL SMITH & COOPER
115 W. Griggs Avenue
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Phone: 575.523.0915
DATE: 5/28/19
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DRAWN BY: LCK
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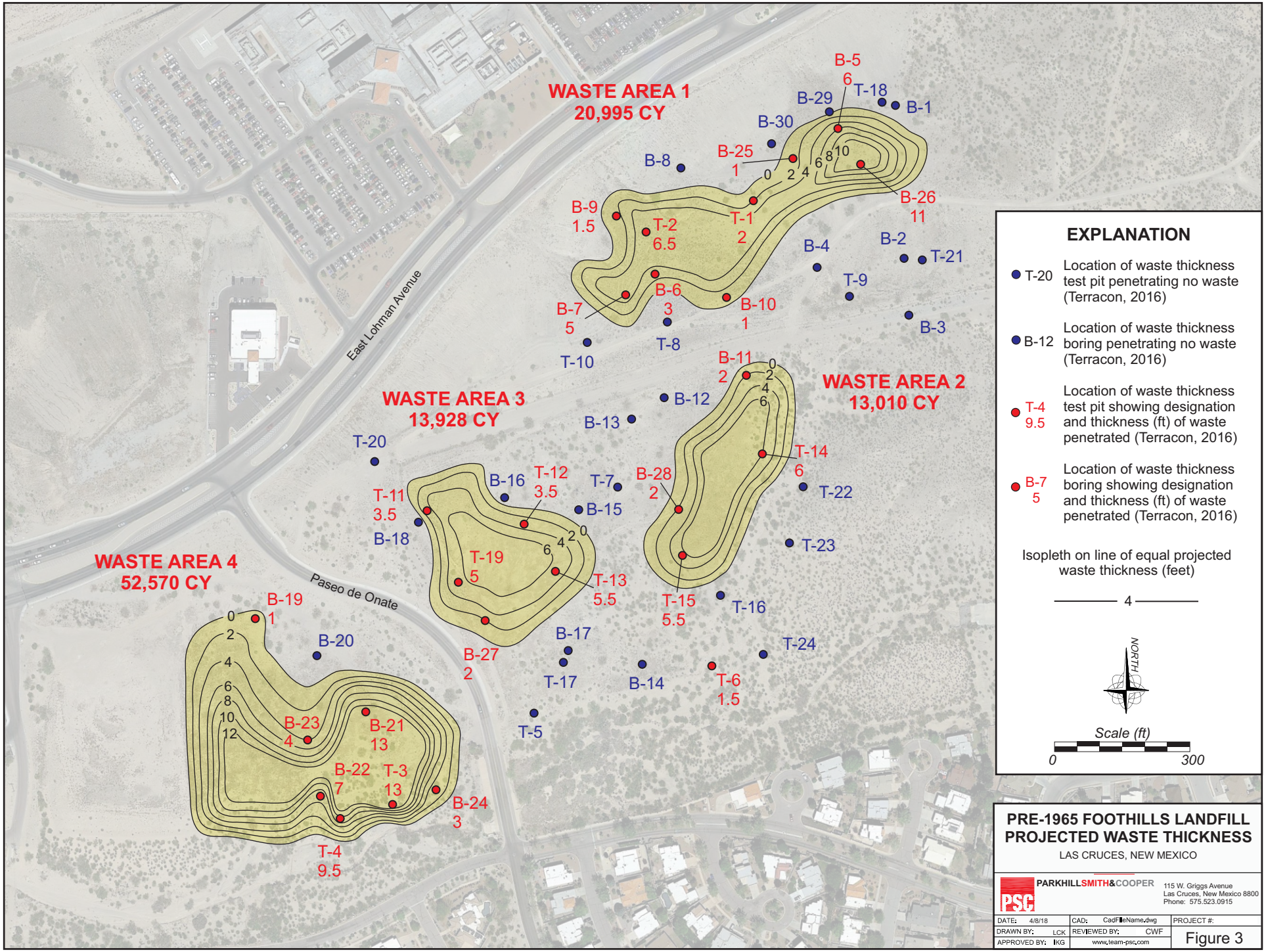
Figure 2



PRE-1965 FOOTHILLS LANDFILL PROJECTED WASTE THICKNESS

LAS CRUCES, NEW MEXICO

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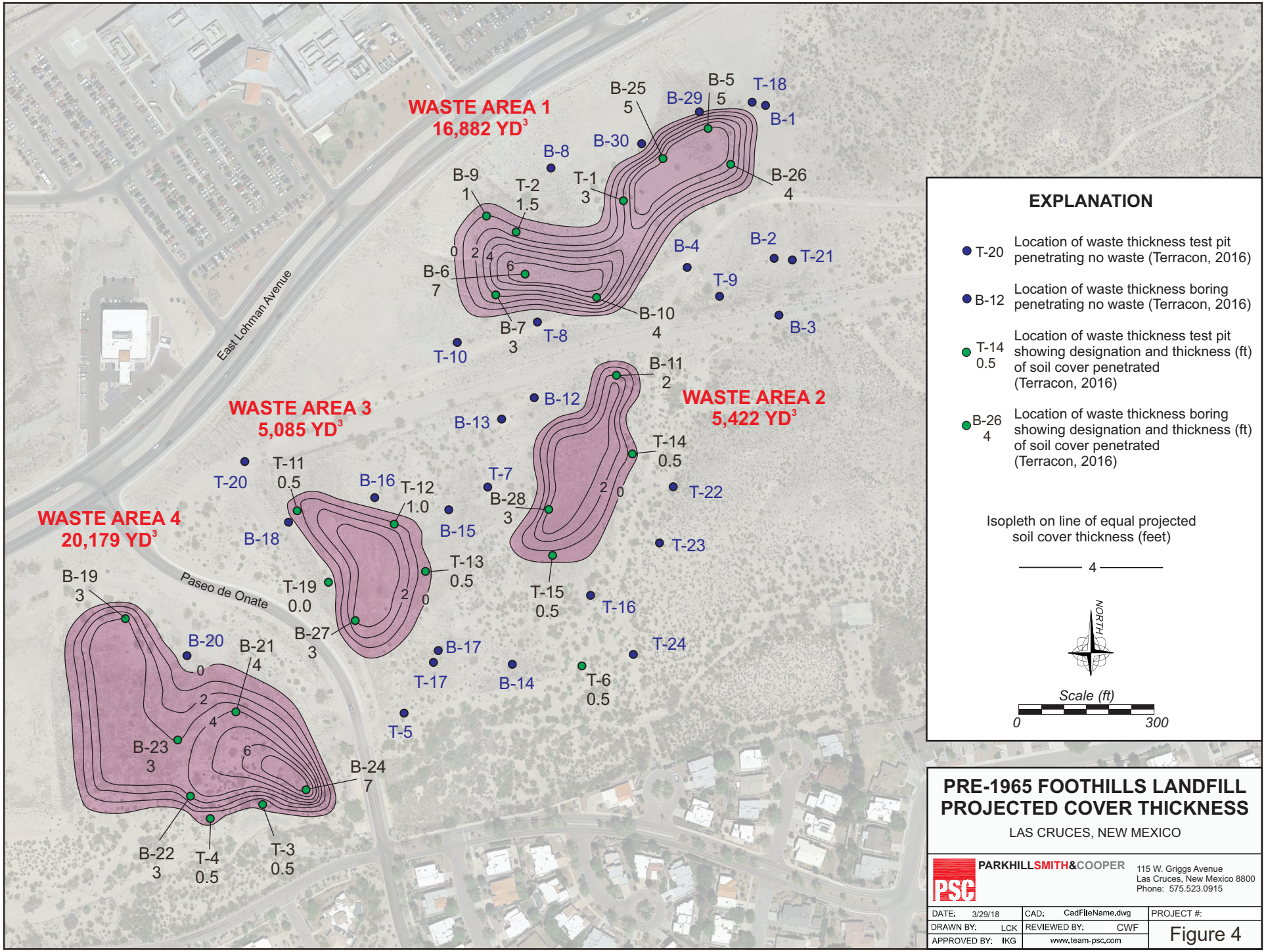
DRAWN BY: LCK	REVIEWED BY: CWF		Figure 3
APPROVED BY: IKG	www.team-psc.com		



PRE-1965 FOOTHILLS LANDFILL PROJECTED COVER THICKNESS

LAS CRUCES, NEW MEXICO

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Phone: 575.523.0915

DATE: 3/29/18	CAD: CadFileName.dwg	PROJECT #:
DRAWN BY: LCK	REVIEWED BY: CWF	Figure 4
APPROVED BY: IKG	www.team-psc.com	

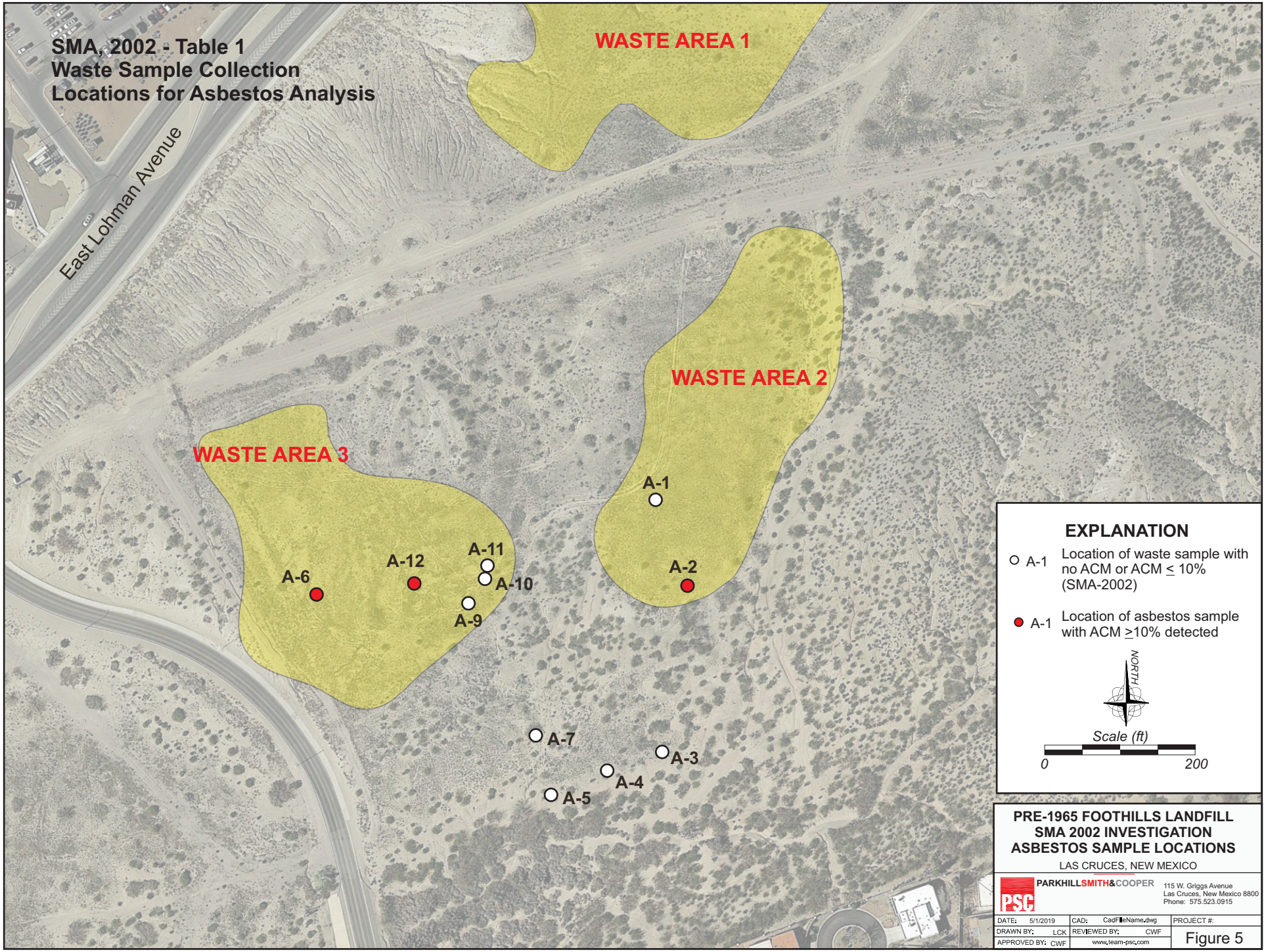
SMA, 2002 - Table 1
Waste Sample Collection
Locations for Asbestos Analysis
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
A-1
A-2
A-3
A-4
A-5
A-6
A-7
A-9
A-10
A-11
A-12
EXPLANATION
A-1 Location of waste sample with no ACM or ACM ≤ 10% (SMA-2002)
A-1 Location of asbestos sample with ACM ≥10% detected
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
SMA 2002 INVESTIGATION
ASBESTOS SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
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Figure 5

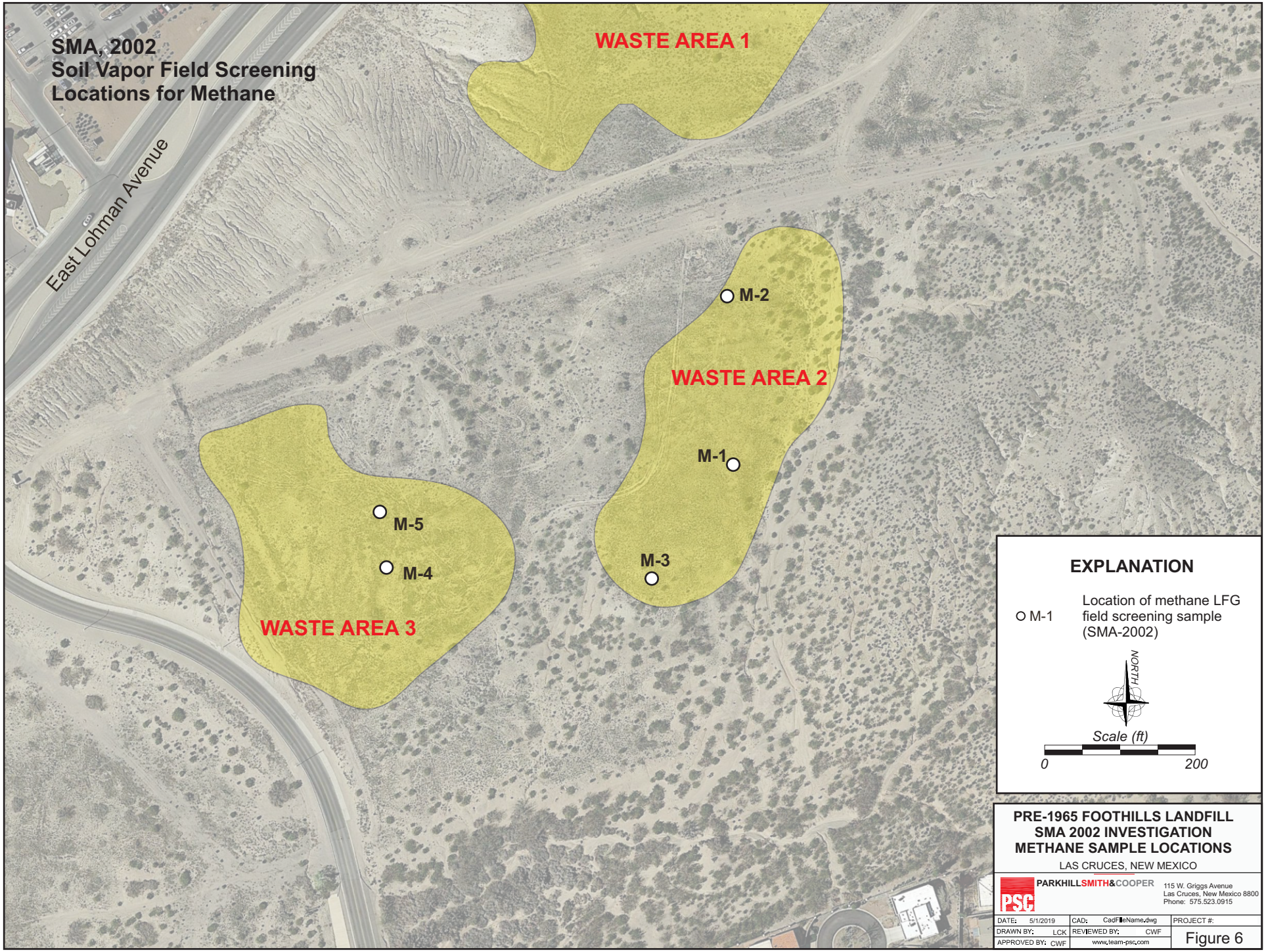
SMA, 2002
Soil Vapor Field Screening
Locations for Methane
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
M-1
M-2
M-3
M-4
M-5
EXPLANATION
M-1
Location of methane LFG field screening sample (SMA-2002)
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
SMA 2002 INVESTIGATION
METHANE SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
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Figure 6

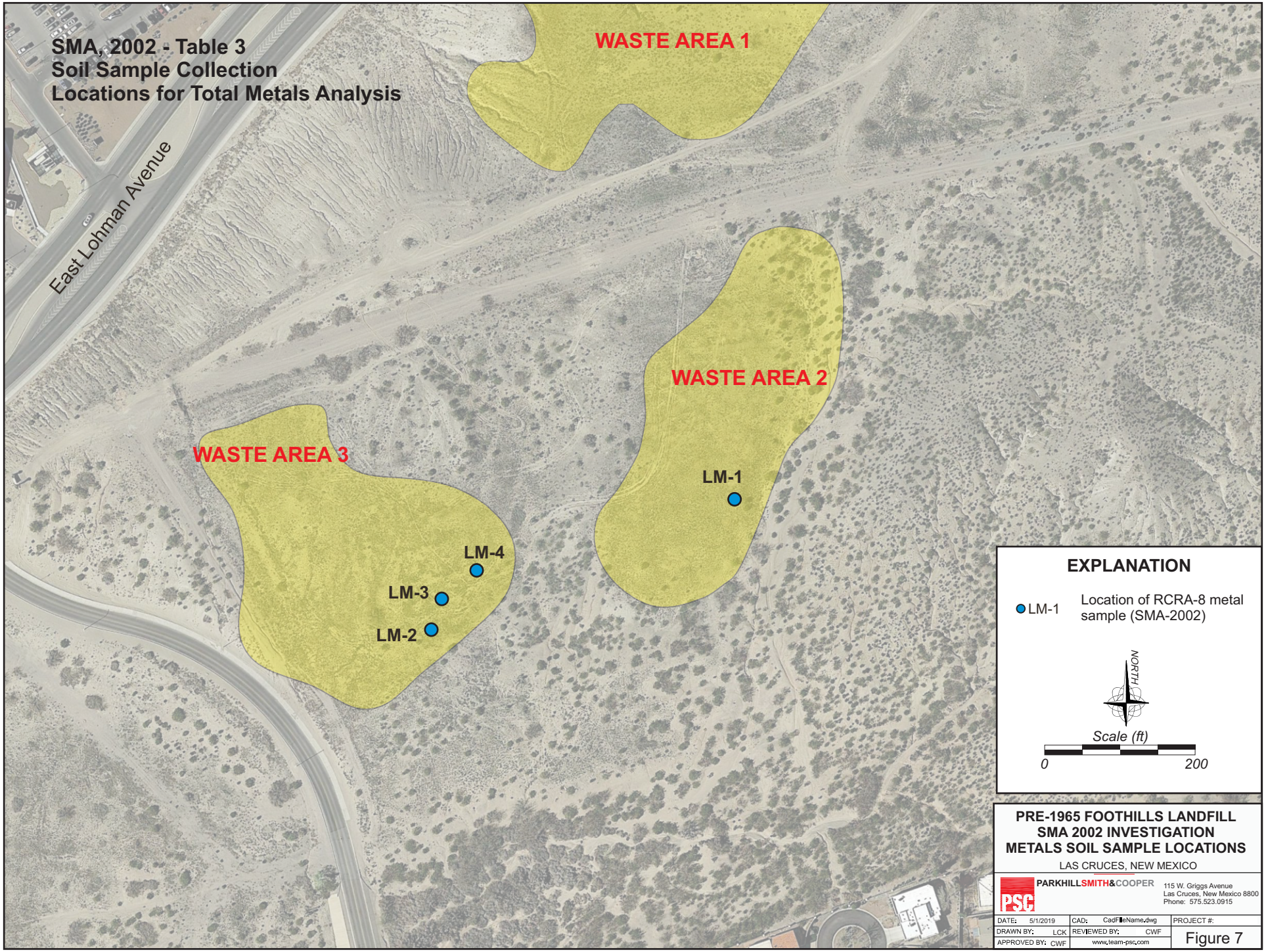
SMA, 2002 - Table 3
Soil Sample Collection
Locations for Total Metals Analysis
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
LM-1
LM-2
LM-3
LM-4
EXPLANATION
LM-1
Location of RCRA-8 metal sample (SMA-2002)
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
SMA 2002 INVESTIGATION
METALS SOIL SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
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Figure 7

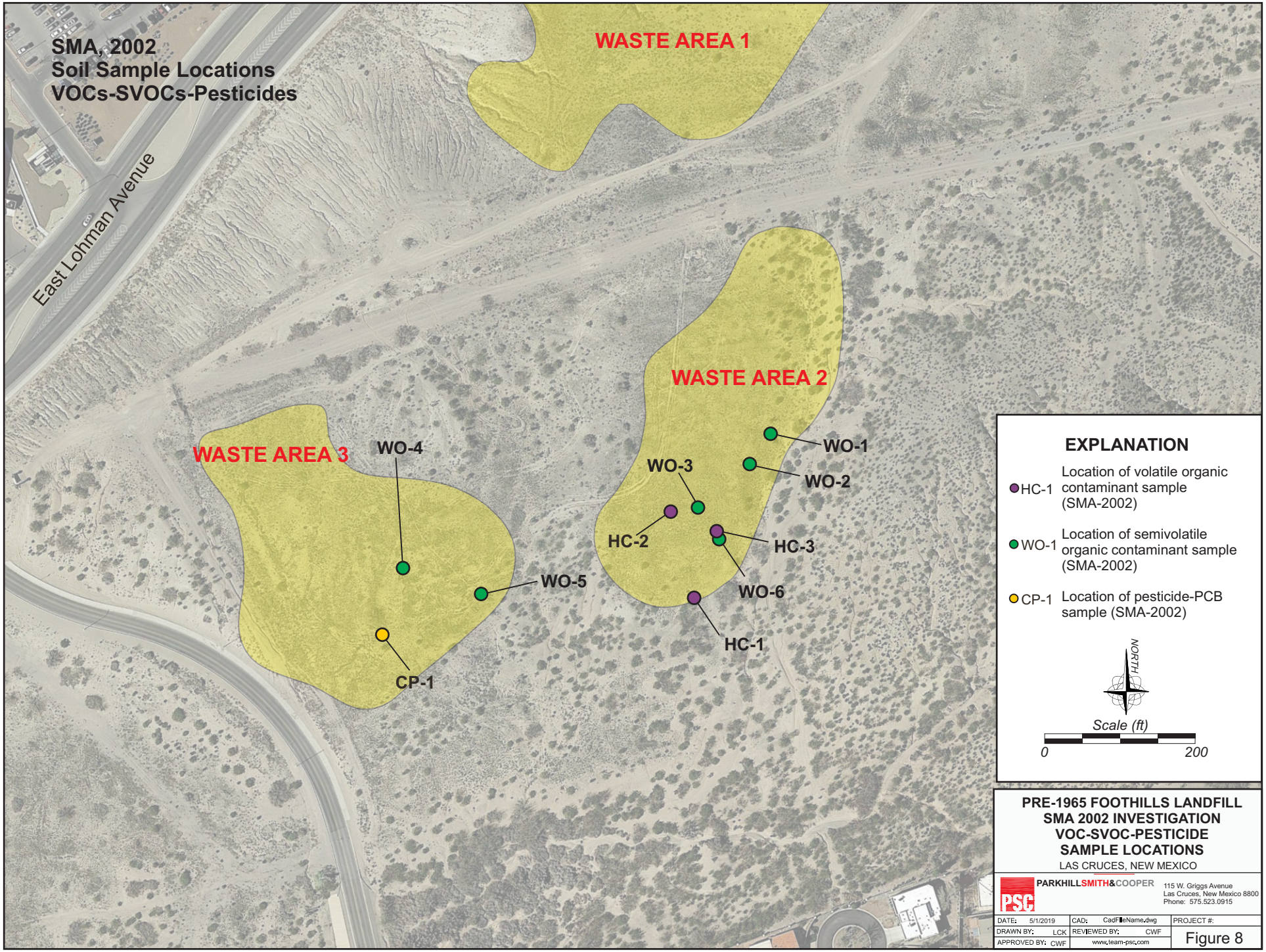
SMA, 2002
Soil Sample Locations
VOCs-SVOCs-Pesticides
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
WO-1
WO-2
WO-3
WO-4
WO-5
WO-6
HC-1
HC-2
HC-3
CP-1
EXPLANATION
HC-1 Location of volatile organic contaminant sample (SMA-2002)
WO-1 Location of semivolatile organic contaminant sample (SMA-2002)
CP-1 Location of pesticide-PCB sample (SMA-2002)
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
SMA 2002 INVESTIGATION
VOC-SVOC-PESTICIDE
SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
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Figure 8

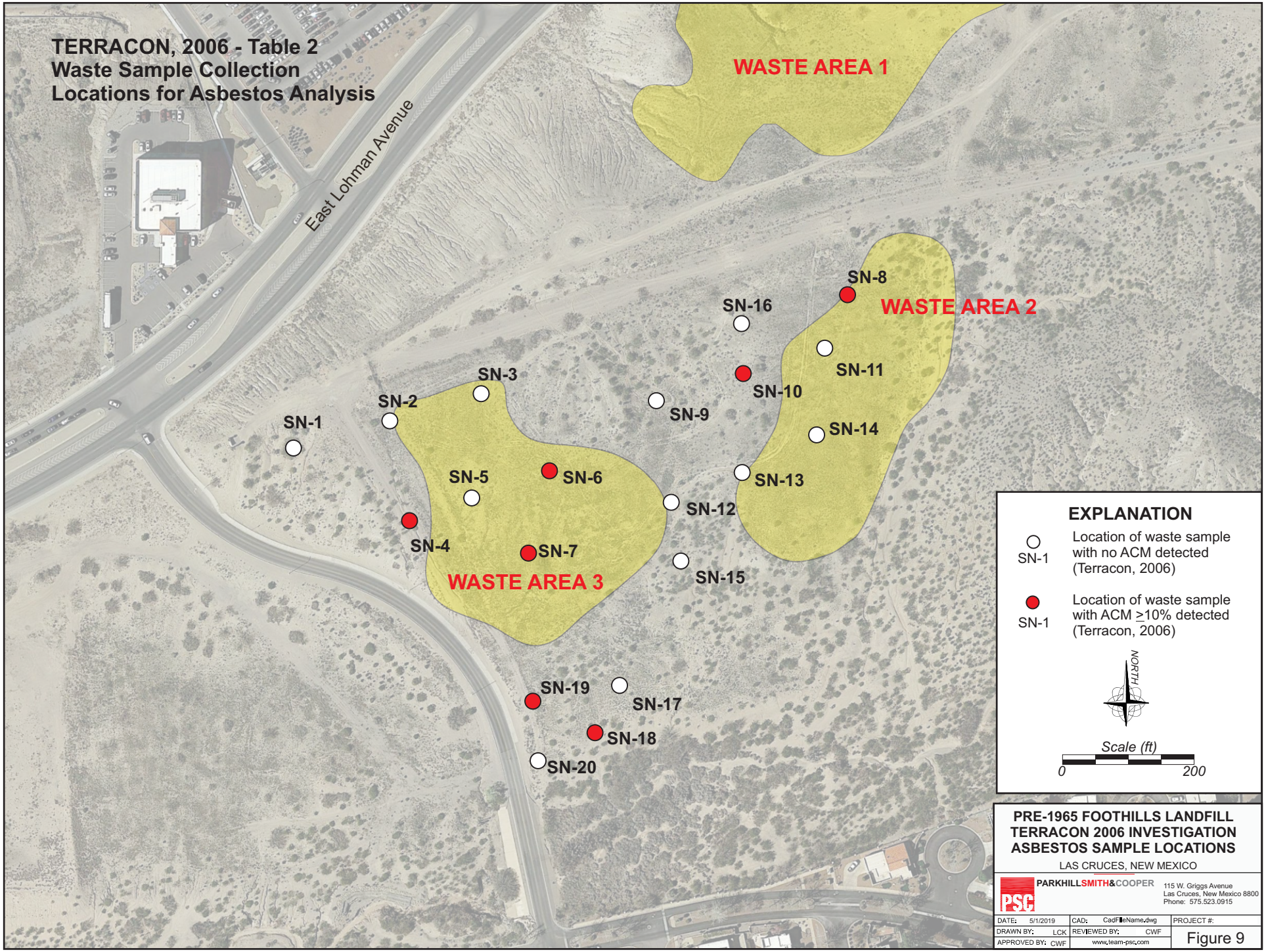
TERRACON, 2006 - Table 2
Waste Sample Collection
Locations for Asbestos Analysis
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
SN-1
SN-2
SN-3
SN-4
SN-5
SN-6
SN-7
SN-8
SN-9
SN-10
SN-11
SN-12
SN-13
SN-14
SN-15
SN-16
SN-17
SN-18
SN-19
SN-20
EXPLANATION
SN-1
Location of waste sample with no ACM detected (Terracon, 2006)
SN-1
Location of waste sample with ACM ≥10% detected (Terracon, 2006)
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
TERRACON 2006 INVESTIGATION
ASBESTOS SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
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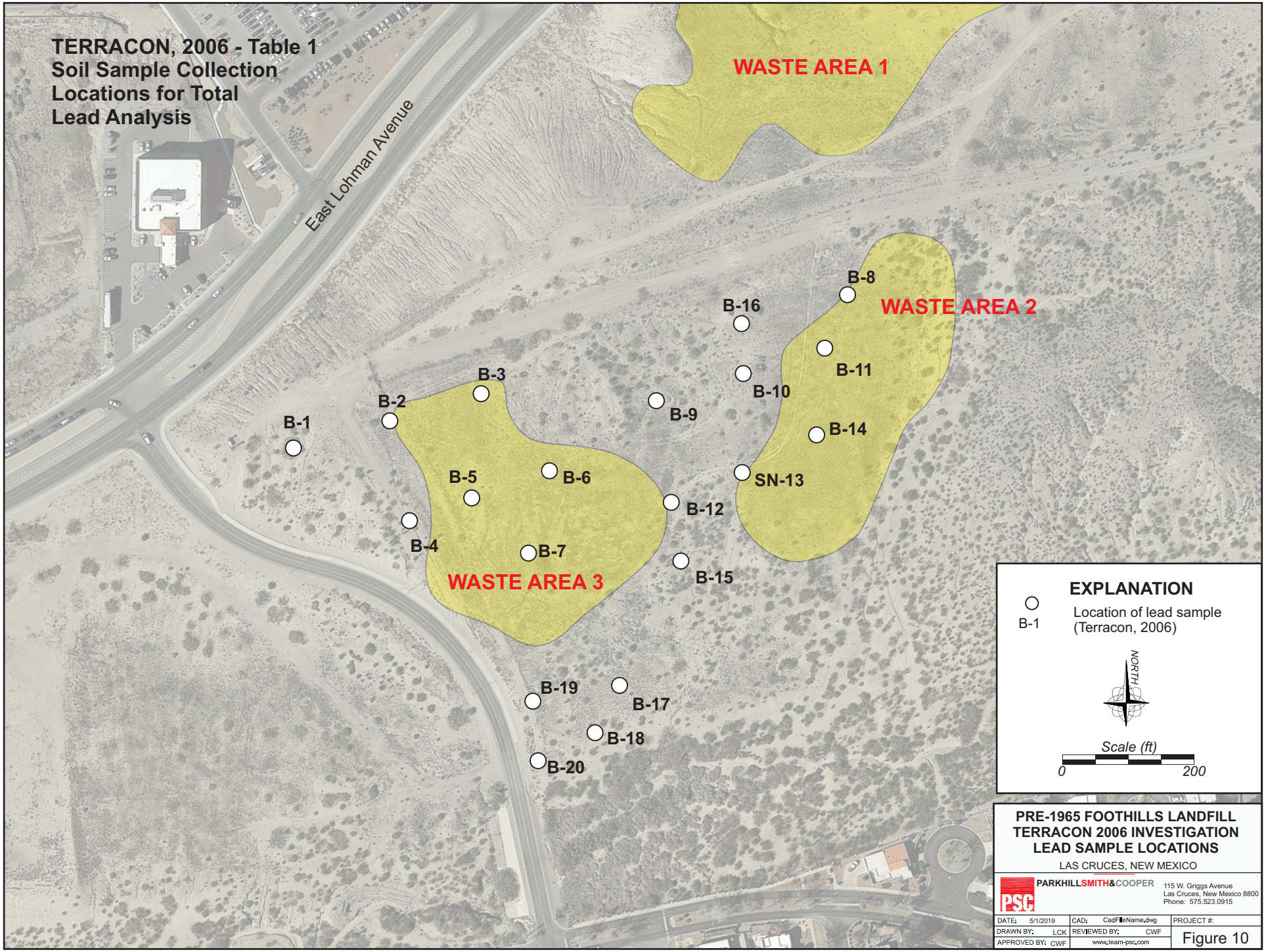
Figure 9


TERRACON, 2006 - Table 1
Soil Sample Collection
Locations for Total
Lead Analysis
East Lohman Avenue
WASTE AREA 1
WASTE AREA 2
WASTE AREA 3
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
B-11
B-12
B-14
B-15
B-16
B-17
B-18
B-19
B-20
SN-13
EXPLANATION
B-1
Location of lead sample
(Terracon, 2006)
NORTH
Scale (ft)
0
200
PRE-1965 FOOTHILLS LANDFILL
TERRACON 2006 INVESTIGATION
LEAD SAMPLE LOCATIONS
LAS CRUCES, NEW MEXICO
PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915
DATE: 5/1/2019
CAD: CadFileName.dwg
PROJECT #:
DRAWN BY: LCK
REVIEWED BY: CWF
APPROVED BY: CWF
www.team-psc.com
Figure 10

TABLES

Table 1.--Suspected ACM Sample Analytical Data

Boring or Test Pit No.	Location		Layer or Sample	Type of Sample Material	Asbestos Type and % of Sample
	Latitude	Longitude			
Souder-Miller, 2002 Asbestos Sampling Locations and Analytical Results					
A-1	32.32070	-106.726717	1	Paint, gray, very non-friable	No asbestos in sample
			2	Acoustic tile, tan, highly friable	No asbestos in sample
A-2	32.320383	-106.726583	1	Surfacing, yellow, very non-friable	No asbestos in sample
			2	Backing, white, highly friable	chrysotile, 40-50%
A-3	32.319783	-106.726700	1	Insulation, white, highly friable	No asbestos in sample
A-4	32.319717	-106.726933	1	Insulation wrap, white, non-friable	No asbestos in sample
			2	Insulation, white, highly friable	No asbestos in sample
A-5	32.319633	-106.727183	1	Roll roofing/shingle, black highly friable	No asbestos in sample
			2	Roll roofing/shingle, black highly friable	No asbestos in sample
			3	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			4	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			5	Roll roofing/shingle, black highly friable	No asbestos in sample
			6	Ply roofing/bitumen, black, highly friable	No asbestos in sample
A-6	32.320367	-106.728167	1	Cement/ABS board, gray, non-friable	chrysotile/crocidolite, 10-20%; 2-5%
A-7	32.319850	-106.727233	1	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			2	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			3	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			4	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			5	Ply roofing/bitumen, black, highly friable	No asbestos in sample
A-8	32.320267	-106.727917	1	Coating, black, very non-friable	No asbestos in sample
			2	Insulation, orange highly friable	No asbestos in sample
A-9	32.320333	-106.727517	1	Roll Roofing/shingle, black, very non-friable	No asbestos in sample
			2	Roll Roofing/shingle, black, very non-friable	No asbestos in sample
A-10	32.320417	-106.727450	1	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			2	Ply roofing, black, very non-friable	No asbestos in sample
			3	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			4	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			5	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			6	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			7	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			8	Ply roofing/bitumen, black, highly friable	No asbestos in sample
A-11	32.320417	-106.727450	1	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			2	Ply roofing/bitumen, black, highly friable	No asbestos in sample
			3	Ply roofing/bitumen, black, highly friable	No asbestos in sample
A-12	32.320400	-106.727750	1	Ply roofing/bitumen, black, highly friable	chrysotile 40-50%
			2	Ply roofing/bitumen, black, highly friable	chrysotile 40-50%
Terracon 2006 Asbestos Sampling Locations and Analytical Results (locations estimated from georeferenced maps, Figure 3)					
SN-1	32.320765	-106.729139	1	White ceramic tile	No asbestos in sample
			2	Pink plaster with paint	No asbestos in sample
SN-2	32.320879	-106.728676	1	White plaster	No asbestos in sample
SN-3	32.320991	-106.728226	1	White rock	No asbestos in sample
SN-4	32.320462	-106.728579	1	Red/gray cement asbestos board	chrysotile 20%
SN-5	32.320557	-106.728264	1	Off-white sand plaster	No asbestos in sample
SN-6	32.320677	-106.727889	1	Off-white felt	chrysotile 75%
SN-7	32.320333	-106.727980	1	Light tan floor tile	chrysotile 10%
SN-8	32.321405	-106.726419	1	Gray rock	No asbestos in sample
				Brown floor tile	chrysotile 15%
SN-9	32.320970	-106.727356	1	Brown/light gray felt material	No asbestos in sample
SN-10	32.321079	-106.726928	1	Beige checkered linoleum	chrysotile 40%
SN-11	32.321177	-106.726525	1	Brown foam with sand	No asbestos in sample
SN-12	32.320538	-106.727782	1	Gray paper, insulation with debris	No asbestos in sample
SN-13	32.320671	-106.726930	1	Rust colored material	No asbestos in sample
SN-14	32.320823	-106.726570	1	Black shingles with white granules	No asbestos in sample
SN-15	32.320303	-106.727238	1	Black tar with blue granules	No asbestos in sample
SN-16	32.321288	-106.726945	1	Tan sand material	No asbestos in sample

Table 1.--Suspected ACM Sample Analytical Data

Boring or Test Pit No.	Location		Layer or Sample	Type of Sample Material	Asbestos Type and % of Sample
	Latitude	Longitude			
Terracon 2006 Asbestos Sampling Locations and Analytical Results (locations estimated from georeferenced maps, Figure 3)					
SN-17	32.319788	-106.727535	1	Sample location shown on map, no corresponding analtical	
SN-18	32.319591	-106.727658	1	Two parts	chrysotile, crocidolite, 12.3%; 1.4%
			2	Part B, black tar	chrysotile, crocidolite, 9.0%; 3.0%
SN-19	32.319709	-106.727964	1	White floor tile	chrysotile 20%
SN-20	32.319470	-106.727938	1	Brown/wite pressboard	No asbestos in sample

Table 2.--Combined summary laboratory test data
Souder Miller Assoc., 2002

Sample Site Designation	Location		Total Petroleum Hydrocarbons EPA Method 8015 (mg/kg)			Volatile Organic Compounds EPA Method 8260 (mg/kg)						Semivolatile Organic Compounds EPA Method 8081/8082 (mg/kg)				RCRA 8 Metals EPA Methods 6010/7471 (mg/kg)								Landfill Gas Field Measurements		
	Latitude	Longitude	GRO	DRO	MRO	Benzene	Toluene	Total Xylenes	Total Napthalenes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Total Arochlor (PCBs)	4,4'-DDT	Chlordane	Toxaphene	Silver	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Mercury	Methane % LEL	Carbon Dioxide % Volume	Oxygen % Volume
SMA 2002 Investigation (sample depths not specified)																										
WO-1	32.320933	-106.726217	<5.0	<5.0	<50.0																					
WO-2	32.320817	-106.726317	<5.0	<5.0	<50.0																					
WO-3	32.320667	-106.726533	<5.0	<5.0	<50.0																					
WO-4	32.320467	-106.727800	<5.0	<5.0	<50.0																					
WO-5	32.320367	-106.727467	<5.0	<5.0	<50.0																					
WO-6	32.320583	-106.726467	<5.0	<5.0	<50.0																					
HC-1	32.320330	-106.726567				<0.05	<0.05	<0.05	<0.50	<0.05	<0.05															
HC-2	32.320650	-106.726650				<0.05	<0.05	<0.05	<0.50	<0.05	<0.05															
HC-3	32.320583	-106.726467				<0.05	<0.05	<0.05	<0.50	<0.05	<0.05															
CP-1	32.320233	-106.727900										<0.110	<0.0020	<0.10	<0.10											
LM-1	32.320683	-106.726367														<0.5	<1.0	130	<0.2	5.1	12.9	<1.0	<0.033			
LM-2	32.320231	-106.727683														<0.5	1.2	243	0.3	5.3	21.6	<1.0	<0.033			
LM-3	32.320350	-106.727633														<0.5	<1.0	289	0.3	9.3	163	<1.0	0.105			
LM-4	32.320417	-106.727450														0.5	<1.0	220	0.3	5.8	28.6	<1.0	0.045			
M-1	32.320817	-106.726383																						0	0	20.1
M-2	32.321433	-106.726400																						0	0	20.1
M-3	32.320417	-106.726733																						0	0	21.1
M-4	32.320467	-106.727867																						0	0	20.8
M-5	32.320663	-106.727900																						0	0	20.6

Table 3.--Lab test results for lead
Terracon 2006, Areas 2 and 3

Sample Designation	Location		Sample Depth (ft)	Lead by EPA Method 6010 (mg/kg)	NMED Soil Screening Levels (mg/kg) for Pb*	
	Latitude	Longitude			Residential	Commercial and Industrial
B-1	32.320765	-106.729139	2.5 - 5.0	25.0	400	750
B-2	32.320879	-106.728676	2.5 - 5.0	3.1	400	750
B-3	32.320991	-106.728226	2.5 - 5.0	5.6	400	750
B-4	32.320462	-106.728579	2.5 - 5.0	26.0	400	750
B-5	32.320557	-106.728264	2.5 - 5.0	70.0	400	750
B-6	32.320677	-106.727889	2.5 - 5.0	3.3	400	750
B-7	32.320333	-106.727980	2.5 - 5.0	2.4	400	750
B-8	32.321405	-106.726419	2.5 - 5.0	4.9	400	750
B-9	32.320970	-106.727356	2.5 - 5.0	3.2	400	750
B-10	32.321079	-106.726928	2.5 - 5.0	4.5	400	750
B-11	32.321177	-106.726525	2.5 - 5.0	2.5	400	750
B-12	32.320538	-106.727282	2.5 - 5.0	18.0	400	750
B-13	32.320671	-106.726930	2.5 - 5.0	40.0	400	750
B-14	32.320823	-106.726570	2.5 - 5.0	6.7	400	750
B-15	32.320303	-106.727238	2.5 - 5.0	6.8	400	750
B-16	32.321288	-106.726945	2.5 - 5.0	27.0	400	750
B-17	32.319788	-106.727535	2.5 - 5.0	4.8	400	750
B-18	32.319591	-106.727658	2.5 - 5.0	7.2	400	750
B-19	32.319709	-106.727964	2.5 - 5.0	6.8	400	750
B-20	32.31947	-106.727938	2.5 - 5.0	7.1	400	750

Locations estimated by georeferenced site sampling map, Terracon 10-3-2006, Figure 3

Table 4.--Calculated Waste and Soil Cover Areas and Volumes
Pre-1965 Foothills Landfill
City of Las Cruces, NM

Waste Area		Projected Waste Thickness Contours								Area Waste Volume (CY)
		0 ft	2 ft	4 ft	6 ft	8 ft	10 ft	12 ft		
1	Area Within Waste Thickness Contour (ft^2)	155,576	106,626	69,752	16,731	9,987	5,106			
	Areas between contours (ft^2)		48,950	36,874	53,021	6,744	4,881	5,106		
	Ave. waste thickness in interval (ft)		1	3	5	7	9	10		
	Estimated waste volume (ft^3)		48,950	110,622	265,105	47,208	43,929	51,060		
	Estimated interval waste volume (CY)		1,813	4,097	9,819	1,748	1,627	1,891		20,995
2	Area Within Waste Thickness Contour (ft^2)	94,138	69,786	44,724	28,102					
	Areas between contours (ft^2)		24,352	25,062	16,622	28,102				
	Ave. waste thickness in interval (ft)		1	3	5	6				
	Estimated waste volume (ft^3)		24,352	75,186	83,110	168,612				
	Estimated interval waste volume (CY)		902	2,785	3,078	6,245				13,010
3	Area Within Waste Thickness Contour (ft^2)	102,689	74,682	50,037	23,925					
	Areas between contours (ft^2)		28,007	24,645	26,112	23,925				
	Ave. waste thickness in interval (ft)		1	3	5	6				
	Estimated waste volume (ft^3)		28,007	73,935	130,560	143,550				
	Estimated interval waste volume (CY)		1,037	2,738	4,836	5,317				13,928
4	Area Within Waste Thickness Contour (ft^2)	220,013	180,620	143,423	115,943	94,036	74,287	57,056		
	Areas between contours (ft^2)		39,393	37,197	27,480	21,907	19,749	17,231	57,056	
	Ave. waste thickness in interval (ft)		1	3	5	7	9	10	11	
	Estimated waste volume (ft^3)		39,393	111,591	137,400	153,349	177,741	172,310	627,616	
	Estimated interval waste volume (CY)		1,459	4,133	5,089	5,680	6,583	6,382	23,245	52,570

Total Estimated Waste Volume (CY) 100503.2

Waste Cover Area		Projected Waste Cover Thickness Contours									Area Cover Volume (CY)
		0 ft	1 ft	2 ft	3 ft	4 ft	5 ft	6 ft	7 ft	8ft	
1	Area Within Waste Cover Thickness Contour (ft^2)	147752	119527	94108	73466	53555	33489	7799			
	Areas between contours (ft^2)		28,225	25,419	20,642	19,911	20,066	25,690	7,799		
	Ave. waste cover thickness in interval (ft)		0.5	1.5	2.5	3.5	4.5	5.5	6.5		
	Estimated waste cover volume (ft^3)		14,113	38,129	51,605	69,689	90,297	141,295	50,694		
	Estimated interval waste Cover volume (CY)		523	1,412	1,911	2,581	3,344	5,233	1,878		16,882
2	Area Within Waste Cover Thickness Contour (ft^2)	74241	53374	35848	20058						
	Areas between contours (ft^2)		20,867	17,526	15,790	20,058					
	Ave. waste cover thickness in interval (ft)		0.5	1.5	2.5	3.5					
	Estimated waste cover volume (ft^3)		10,434	26,289	39,475	70,203					
	Estimated interval waste Cover volume (CY)		386	974	1,462	2,600					5,422
3	Area Within Waste Cover Thickness Contour (ft^2)	69151	48818	35525	18389						
	Areas between contours (ft^2)		20,333	13,293	17,136	18,389					
	Ave. waste cover thickness in interval (ft)		0.5	1.5	2.5	3.5					
	Estimated waste cover volume (ft^3)		10,167	19,940	42,840	64,362					
	Estimated interval waste Cover volume (CY)		377	739	1,587	2,384					5,085
4	Area Within Waste Cover Thickness Contour (ft^2)	191712	156682	126011	95873	37647	19949	9068	3752		
	Areas between contours (ft^2)		35,030	30,671	30,138	58,226	17,698	10,881	5,316	3752	
	Ave. waste cover thickness in interval (ft)		0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	
	Estimated waste cover volume (ft^3)		17,515	46,007	75,345	203,791	79,641	59,846	34,554	28,140	
	Estimated interval waste Cover volume (CY)		649	1,704	2,791	7,548	2,950	2,217	1,280	1,042	20,179

Total Estimated Cover Volume (CY) 47,569

ATTACHMENT 1

Waste Excavation Plan Checklist

WASTE EXCAVATION PLAN CHECKLIST

Topic/Description	Notes	Status
Background Summary		□
Facility or project description, location and reason for the excavation	Pre-1965 municipal waste and construction demolition debris landfill located on East Lohman Ave, in Las Cruces. Excavation for site redevelopment	□
NMED Notification Prior to Commencement of Scheduled Activities	Ms. Auralie Ashley-Marx	□
Schedule of Proposed Activities	Start by late August; 65 working days	□
Exploratory Pit Locations	Not required	n/a
Plan view map with landfill boundaries, observations, objects encountered, approximate excavation boundaries	**Figure 2** and **Figure 3**	□
Waste Removal (Describe in Detail)		□
How waste will be removed	55 ton Hydraulic excavator to 12 CY transport dump trucks	□
How stockpiling of waste will be avoided	Transported to Corralitos Landfill	□
How, if necessary, temporarily stockpiled waste will be restricted from public access and covered, and what preventative measures will be taken to preclude soil or groundwater contamination	Site temporary fences and barriers	n/a
Equipment to be used	One hydraulic excavator; One front end loader, One articulated dump truck, One water truck, ten haul trucks	□
Screening equipment (if applicable)	Not required	n/a
Type of trucks and owner(s)	CAT 349 Hydraulic excavator (rental), CAT 950M Front End Loader (City), 740 articulated dump truck (City), One 4,000 Gallon Water Truck (City)	□
Protection mechanisms to prevent slope failure of the excavation (OSHA compliance)	OSHA compliance, engineer evaluation option	□
Dust control mechanisms (e.g., use of water, tarping, avoiding work at periods of high winds)	City water truck	□
Personnel that will be dedicated to monitoring excavation activities	City personnel	□
Type(s) of waste to be excavated or anomalies that will trigger cessation of excavation or monitoring	MSW	□

Topic/Description	Notes	Status
Air Monitoring		□
Compliance with local laws/ordinances	LFG monitoring	□
Types of air monitoring devices to be utilized, frequency of sampling	MultiRAE or equivalent; continuous air monitoring	□
Procedures to ensure worker safety during monitoring, sampling, and excavation activities	H&S Plan	□
Personal Protective Equipment		□
Required PPE to be used during excavation activities and protection levels, as appropriate	Level D	□
Hazard Assessment		□
Chemicals and contaminants that may be encountered, potential health hazards, associated symptoms, and proposed response to such situations	H&S Plan	□
Site Perimeter and Security		□
Means of restricting or cordoning off excavated areas (during operations and at the end of each day)	Signs, temporary fencing, cones	□
General site security procedures, to include description of exclusion zone(s) to be implemented	No exclusion zone needed	□
Letter from Landfill Acknowledging Acceptance of the Waste Excavated	Patrick Peck, Landfill Director, Corralitos Landfill	□
Verification of Commercial Waste Hauler Registration for Hauler(s)	Certified Commercial Waste Hauler, To Be Determined	□
Work Limitations		□
Anticipated days/hours of excavation activities, personnel shifts, weather conditions that would result in cessation of work	Monday through Friday, 8 am to 4 pm; inclement weather, high winds	□
Emergency Contact Log and Directions & Route Map to Nearest Hospital	H&S Plan - Hospital Location Map, **Figure 1**	□
Key Project Personnel and Emergency Telephone Numbers		□
Identification of the Site Safety Officer and other supervisory personnel	H&S Plan - **Table 1**	□
Telephone numbers for nearby fire and police departments/substations, hospital(s), poison information center, NMED's 24-hour emergency reporting, and the local NMED Solid Waste Bureau's enforcement officer	H&S Plan - **Table 1**	□

Note: This table addresses the requirements set forth in the NMED SWB "Waste Excavation Checklist".

ATTACHMENT 2

Landfill Gas Monitoring Log

Landfill Gas Monitoring Log

Monitored By: _____ **Signature:** _____
Date: _____

Weather Information

Date and Amount of Last Precipitation: _____ inches
Current Temp: _____ °F
Current Wind Speed: _____ mph
Current Wind Direction: _____
Current Barometric Pressure: _____ in. Hg

Weather Conditions: _____

Equipment Information

Monitoring Equipment Used: _____
Date and Time Last Calibrated: _____

Comments: _____

Monitoring Probe ID	Probe Depth (feet)	CH_4 Concentration (% in air)	LEL (%)	CO_2 (%)	O_2 (%)	CO (TWA)	H_2S (TWA)	VOCs (TWA)	Balance Gas (%)	Time of Measurement	Duration of Measurement
Allowable (notify)		>1.25%	>25%	>0.5%	<19.5%	35 ppm	10 ppm	25 ppm			
Stop Work @		>3%	>60%	>3%	<19.5%	100 ppm	15 ppm	50 ppm			
Perimeter Probes											
Barhole Perimeter Probe											
Permanent Perimeter Probe											
Future Permanent Probe											
Landfill Structures											
Structure											
	--										
	--										
	--										
	--										
Supplemental Barhole Probes (as necessary)											
Probe ID											

ATTACHMENT 3

Pre-1965 Foothills Landfill Excavation

Contingency Plan

WASTE EXCVATION PLAN
PRE-1965 FOOTHILLS LANDFILL

Las Cruces, New Mexico

Submitted To:

New Mexico Environment Department
Solid Waste Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469
505.827.0197

Prepared For:

City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
575.541.2000

Prepared By:

Parkhill Smith & Cooper
115 W. Griggs Ave
Las Cruces, NM 88001
505.867.6990

July 2018

PSC Project #: 01003418

PARKHILLSMITH&COOPER

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1.0 SCOPE

1.1 Introduction

The attached procedures outline the appropriate functions for handling a site emergency. It sets up a structure for directing the overall situation and establishes a framework for organization, control, and communications. This procedure identifies the information required to respond effectively to potential hazards to human health or the environment which may result from accidents, fire or other unplanned occurrences which may happen at the Pre-1965 Foothills Landfill.

1.2 Plan

This procedure is designed to establish a pre-plan for coping with a major disaster or emergency, safely evacuating employees from the site and coordinating with local emergency services as required. This plan will be updated as required to comply with the New Mexico Solid Waste Rules (SWR) 20.9.5.15.E NMAC and kept on file at the work site.

1.3 Administration

Each employee will be trained in the proper use of emergency procedures for carrying out their responsibilities as directed.

1.4 Organization

The implementation and execution of the plan involves the actions of the Emergency Coordinator (EC), who will be designated by the City as the Project Site Manager.

2.0 EMERGENCY PROCEDURES

In the event of an employee discovering an imminent or actual emergency situation, the employee shall immediately notify the EC or designee, as well as personnel in the immediate area who may be in danger.

Upon notification, the EC or designee will, to the extent possible:

- Determine the exact source, amount, area of involvement of the emergency.
- Assess the possible hazards to human health and the environment.
- Notify applicable agencies with a preliminary assessment of the situation, notification of hazards beyond the site boundaries, and request appropriate assistance (see Section 3 of this plan).
- If a fire occurs, activate the Fire Control Plan (see Section 6 of this plan).

- If a spill or release of contaminants occurs, activate the Spill and Release Plan (see Section 6 of this plan).
- Where applicable, operations shall be stopped, and waste contained and collected, to ensure fires do not occur, recur, or spread.
- If operations are stopped, monitor for potentially hazardous situations.
- Discontinue waste excavation at the incident area until cleanup procedures are completed.

3.0 EMERGENCY PHONE NUMBERS

The following personnel and agencies may be notified by the site for service in the event of an emergency; and the emergency contact information listed in this Plan will be verified and updated as warranted:

Personnel/Agency	**Phone Numbers**
Primary Emergency Coordinator *(To Be Determined)*	
City Site Safety Manager	Work:
	Cell:
Alternate Emergency Coordinator, *(To Be Determined)*	
	Work:
	Cell:
Ambulance	911
Mountainview Hospital, 4311 East Lohman Ave, Las Cruces, NM	575-556-7600
City of Las Cruces Fire Department, 201 E. Picacho Ave, Las Cruces	911
	575-528-3473
N M State Police, 4055 S. Sonoma Ranch Blvd, Las Cruces, NM	911
	575-524-6111
Dona Ana Co. Sheriff Department, 845 N Motel Blvd, Las Cruces	552-525-1911
New Mexico Environment Dept. - Santa Fe	505-827-0197
Environment Dept. – Teri D. Monaghan	505-383-2077
Environment Department 24 Hour Emergency Line	505-827-9329
Air Quality Bureau –	505-476-4375
U.S. Environmental Protection Agency	
Region 6- Dallas, TX	214-665-2733
National Response Center	800-424-8802
Advanced Chemical Transport (local haz-mat cleanup)	575-824-0164
Waste Management (Medical waste removal, soiled laundry Bloodborne Pathogens)	575-526-3060

Give the following information to all notified agencies:

- Your name and telephone number
- Name and address of the facility
- Time and type of incident (e.g., fire/release)
- Possible material(s) involved, to the extent known
- The extent of injuries, if any
- Possible hazards to human health or the environment outside the facility

In the event of an emergency, the EC will meet with representatives of local fire and police departments to discuss information concerning:

- Facility layout
- Possible hazards
- Emergency equipment location and operation
- Communications equipment
- Other critical information and procedures

4.0 EMERGENCY COORDINATOR (EC)

The EC or his/her designee will be responsible for coordinating all emergency response measures. In the event of an emergency the following personnel are qualified to act as the EC. Personnel are listed in the order in which they will assume responsibility as EC.

	Phone Numbers
Primary Emergency Coordinator *(To Be Determined)*	
Site safety Manager	Work: Cell:
Alternate Emergency Coordinator *(To Be Determined)*	
Lead Operator	Work: Cell:

5.0 EMERGENCY EQUIPMENT

The EC maintains the following list of the physical description, location and capabilities of all emergency equipment required on-site, heavy equipment will be located at the Project Control Area (**Figure II.3.1**). The following emergency equipment will be maintained at the job site.

- **Alarm and communication materials:**
  - Telephones
  - Cell Phones
  - Radios
- **Fire Equipment:**

- Every piece of equipment will carry at least one dry chemical extinguisher.
- ABC dry chemical fire extinguishers will be provided in operating areas.
- Fire extinguishers will be provided at the project staging site.
- Spare fire extinguishers of the ABC dry chemical type will be kept on site for replacement of discharged fire extinguishers and other similar uses.
- Old or obsolete fire extinguishers will be replaced as necessary.
- The CAT front end loader or other available equipment will be utilized to separate burning materials from the active face and smother burning refuse.
- The 4,000-gallon Water Truck (250 gpm) or other available equipment will be utilized in conjunction with the front-end loader to extinguish fire.

- **Spill Control Equipment:**
  - On-site fuel will be contained with a certified spill containment berm.
  - Positive drainage is maintained from Spill Prevention Countermeasure and Control (SPCC) Plan to an isolated sediment pond.
  - The front end loader or other available equipment will be utilized to construct a berm or separate and contain any material which is spilled on-site.
  - 4,000-gallon Water Truck (250 gpm) or other available equipment will be utilized to decontaminate any equipment used in clean-up of any potentially hazardous material spillage.
  - Tarps; tarps will be kept on site for use as necessary to cover any spilled material to protect the surrounding environment from potential migration.

6.0 CONTINGENCY PROCEDURES

Potential contingency situations that may occur at the landfill include: fires, spills and discharges, leachate seepage, drainage failure, gas migration, slope failure, and water quality impacts. City of Las Cruces excavation crew members will be OSHA 40-hour HAZWOPER certified to perform the work. City personnel will also receive specific training in contingency response procedures. Response procedures for these potential situations are described below:

6.1 Fires

A. Should a fire occur in any of the structures or areas of project site, the City operator will call for the City of Las Cruces Fire Department (Station 6, 2750 Northrise Drive, 575.532.3360). Meanwhile, the operator will proceed with the following actions if the character of the fire does not endanger the personnel's safety.

B. Should the fire be localized in a fill area, the operator will proceed to excavate the burning refuse to separate it from the rest of the fill, and proceed to cover it with on-site soil. Only if considered necessary, water from the on-site Water Truck will be used.

C. Should the fire be localized to a buffer zone surrounding the fill areas, the operator will excavate the necessary fire breaks to prevent the fire from reaching any fill area and will water down the area between the fire break and the refuse area using the on-site Water Truck.

D. Should the fire be localized to an on-site structure, the operator will direct the use of on-site fire extinguishers to control the fire as much as possible, will construct fire breaks and water down the areas surrounding the fire.

E. On arrival at the site, if necessary, the Fire Department will be in charge of the necessary actions and, on their completion, will report the conditions at the site. The EC will conduct a field investigation of the origin and extent of the damages to the containment and other structures, its impact on the landfill operations, temporary and permanent repairs and changes in operational plans considered necessary to prevent similar occurrences.

6.2 Spills and Discharges

A. In the event of any accidental spill or unauthorized discharge of suspected hazardous or toxic materials on the project site, the related area will be promptly isolated by the emergency equipment previously listed and attempts to identify the material will be made. Information on persons that may have been exposed or may become exposed to the material will be recorded.

B. If the material is identified to be in the category of acceptable or special waste, the City operator will dispose of the material in the landfill, or will gain authorization form Corralitos Landfill to deliver the special waste.

C. Rejected or Unauthorized Wastes; If the material is not identified with certainty, or is identified as being in the category of unacceptable waste, the operator will reject the waste and follow the following waste rejection procedures;

   i. NMED will initially be notified within 24 hours of the rejection of the unauthorized waste via phone, fax or e-mail. The notice will identify the date, time, waste type and generator if known and the steps taken to protect human health and the environment.

   ii. A waste rejection form will be filled out for the rejected material.

   iii. A qualified contractor will properly containerize and/or package the material for proper shipment using personal protection equipment (PPE) and cleanup procedures appropriate for the rejected materials.

   iv. The operator will prepare an appropriate manifest for the material identifying the generator, transporter and disposal location.

   v. A qualified and registered transportation contractor will transport the rejected material for disposal in compliance with applicable federal, state, and local regulations.

   vi. The rejected waste will be transported to an appropriate disposal location for final disposal, or to a permitted holding facility pending the outcome of the disposal location's waste approval process.

   vii. Completed manifests for the rejected wastes will be sent to the generator if known and to NMED along with all supporting documentation. Rejected waste documents will be filed in the facility operating record.

D. Sludge Spill: Sludge (any solid, semi-solid, or liquid waste generated by a municipal, commercial, or industrial waste water treatment plant, water supply treatment plant, or air pollution control facility, but does not include treated effluent from a waste water treatment plant) is not anticipated to be present in the waste. However, in the event that sludge is identified in exhumed waste, the area will be isolated from the general public and the transporter will be required to clean-up and disinfect the area immediately. Should disinfection beyond the capability of the clean-up kit carried by the transporter be required, the City of Las

Cruces Waste Excavation Crew will clean-up the remaining area with heavy equipment and transport the sludge to the Corralitos Landfill to dispose as Special Waste Sludge. Any remaining areas requiring disinfection will be treated with additional chlorine provided by the City.

6.3 Leachate Seepage

A. If leachate is detected during waste excavation, a temporary containment structure consisting of a berm and a sump will be constructed at the site of the leachate emergence immediately after the leachate is observed.

B. If necessary, the landfill cover at the site of the leachate seepage will be excavated to permit free drainage of the leachate to the sump and allowed to drain.

C. The leachate will be collected, tested, removed, and disposed of at an appropriate treatment facility.

6.4 Drainage Failure

A. If a temporary drainage structure such as a ditch or diversion berm fails or is blocked, prompt action will be directed to avoid erosion of cover material and/or runoff contact with refuse by immediately repairing the temporary structure with readily available materials such as on-site soil and temporary drain lines. The temporary repairs will be replaced by permanent repairs to be performed as soon as the conditions allow it. The repairs or permanent replacement of the temporary structure shall be designed such as to prevent future failures.

B. If a permanent drainage structure such as a culvert, over-side drain, or line ditch fails or is blocked, prompt action will be directed to avoid erosion of cover material and/or runoff contact with refuse by immediately repairing the temporary structure with readily available materials such as hay bales and temporary drain lines. The temporary repairs will be replaced by permanent repairs to be performed as soon as the conditions allow it. The repairs or replacement of the failed structure shall be designed as to prevent future failures.

C. The City of Las Cruces will maintain containment berms or drainage swales around the landfill excavation sites as necessary for stormwater control.

6.5 Gas Migration Monitoring Contingencies

A. In the event of methane gas migration off-site in exceedance of the Lower Explosive Limit (LEL), or other hazardous atmospheres, the City of Las Cruces Site Manager and the City crew will take the following actions:

- All personnel shall leave the area where gas is escaping and go upwind.
- Extinguish all open flames and remove all sources of heat or ignition, including equipment engines.
- Notify the EC.
- The EC shall coordinate notification and set up barriers and warning signs around effected areas and if necessary notify the affected surrounding property owners, by going house to house, the need to evacuate until emergency have determined the threat of explosion or fire has been removed.

Verification sampling will be conducted upon detection of the LEL exceedance. If follow-up determination verifies that the LEL has been exceeded, the City will notify the NMED within 24 hours of the magnitude of the exceedance and, if necessary, the appropriate actions initiated to mitigate the effects of the exceedance as required in 20.9.5.9.B and C NMAC and the Landfill Gas Management Plan.

6.6 Underground Utilities

A. In the event of contact with any underground utilities not identified by site utility clearance measures, the EC will immediately stop operations and inspect the installation for risks to site personnel or the utilities. Site operations will remain in suspension until the risks are assessed and appropriate measures are taken.

6.7 Slope Failure

A. In the event of an actual slope failure or evidence that a slope failure may occur, the affected or potentially affected areas will be promptly evacuated.
B. The City's Site Manager will direct the landfill equipment operators to stabilize slopes as needed.

6.8 Employee Training Program

Copies of the Contingency Plan will be located at the worksite and will be sent to the appropriate agencies upon approval of the NMED as outlined in the 20.9.5.15.C NMAC. Per 20.9.5.8.B(7) NMAC, City employees will be trained on the implementation of the Contingency Plan. The City's Training Attendance Sheet will be used to document Contingency Plan Training. Contingency plan training will be filed in the site excavation operating record. All employees will be familiar with emergency procedures and have immediate access to emergency telephone numbers. The City's EC will be responsible for the proper training of employees for the successful implementation of emergency management procedures.

Employees will also be trained in the following areas to supplement the Contingency Plan Training:

- First Aid
- PPE
- Leaks and Spills
- Petroleum Storage Tank
- Fire Extinguisher

6.9 List of Emergency Coordinators

In the event of an emergency the following personnel are qualified to act as the EC. Personnel are listed in the order in which they will assume responsibility as EC.

	Phone Numbers
Primary Emergency Coordinator *(To Be Determined)* Site Safety Manager	Work: Cell:
Alternate Emergency Coordinator *(To Be Determined)*	Work: Cell:

6.10 Duties and Responsibilities of the Primary or Secondary Emergency Coordinator

Whenever there is an imminent or actual emergency situation, the City's EC or his/her designee must immediately:

- Activate the communications systems to notify facility personnel.
- Notify emergency response agencies, including NMED, as necessary.

Whenever a potential contaminant release, spill, fire, or other emergency situation occurs, the EC will immediately identify the character, source, and extent of the incident. The EC will be trained in special/hazardous waste identification.

In addition, the EC must assess the possible hazards to health or environment that may result from the incident. Immediate, delayed, direct, and indirect effects of the incident must also be assessed. The immediate effects of the incident will be assessed by identifying the waste and containing the release, fire or explosion to the smallest area possible. The remaining direct or indirect effects of the incident will be assessed by an outside consultant if necessary.

If the EC determines that the incident is a definite threat to the health and safety of any person or persons on or near the landfill, he or she must notify the applicable local authorities who will indicate the appropriate action to be taken. If necessary, immediately notify the proper authorities. The following information will be reported:

- Name of the EC reporting the incident.
- Telephone number where EC reporting the incident can be reached.
- Name, location, and permit number of the landfill facility.
- A brief description of the incident, nature of materials involved, extent of any injuries, and possible hazards to health and environment that exist or may occur.
- Estimated quantity of materials involved.
- Extent of contamination of land, water, or air.
- Portions of the Contingency Plan that have been or are being initiated.

During an emergency, the EC must take all reasonable measures to ensure that fire, explosion, emission, spill, or discharge do not reoccur or spread. These measures may include temporarily halting operations, collecting and containing released materials, and/or removing or isolating containers. An assessment will be made at this time if it is feasible to continue normal operation of the facility.

If operations are temporarily halted in response to an incident, the EC will ensure that adequate mitigation measures have been taken before operations resume.

Immediately after an emergency, the EC (after NMED approval) must arrange services to treat, store, and/or dispose of residues, etc., from an emission, discharge, fire, or explosion at the installation.

The EC will ensure that, in the affected areas of the facility, no material incompatible with the emitted residue is processed, stored, treated, or disposed of until cleanup procedures are completed. This will be accomplished by analytical testing of the affected areas. Once this testing is completed and results show no further contamination or incompatibility exists, operations will resume as normal. All emergency equipment listed in this plan will be cleaned and fit for its intended use before operations are resumed.

After the incident, the EC will prepare a written report of the incident and submit it to the NMED if necessary. The report must include the following:

- Name, address, and telephone number of the individual filing the report.
- Name, address, permit number and telephone number of the landfill facility.
- Date, time, and location of the incident.
- A brief description of the circumstances causing the incident.
- An assessment of any contamination of land, water, or air that has occurred due to the incident.
- Estimated quantity and disposition of recovered materials or wastes that resulted from the incident.
- Sampling protocols and results.
- A description of what actions the installation intends to take to prevent a similar occurrence in the future.

During the emergency and initial implementation of the emergency procedures, it will be the EC's responsibility to coordinate removal and/or relocation of any equipment and vehicles, and prohibiting access to the incident area.

As part of implementing this plan, the emergency response agencies listed will be provided a copy of the plan as required by SWR 20.9.5.15.C NMAC

Las Cruces Fire Department
201 E. Picacho Ave.
Las Cruces, NM 88001
Phone: 575-528-3473

Dona Ana County Fire Dept.
1430 Portland Drive
Las Cruces, NM 88001
Phone: 575-647-7923

These agencies will be invited to a pre-excavation meeting and site walk to review the Contingency and Emergency Response plans and to provide comment on the plans.

6.12 Evacuation Plan for Facility Personnel

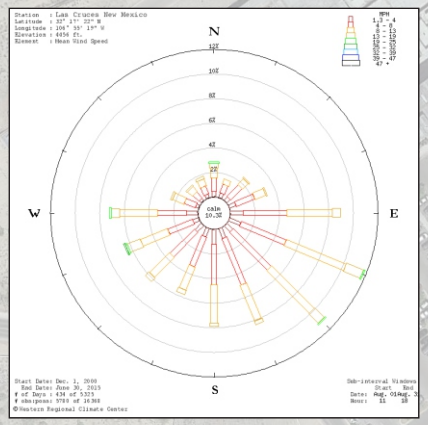
The potential for injuries and emergencies requiring job site evacuation are considered minimal at this site. However, a voice alarm can be given through the worksite communication system (radios) if it is deemed necessary. Should an emergency arise requiring outside support operations, personnel will be directed by the EC to keep access areas free from obstructions and/or equipment so that emergency vehicles will have a clear right-of-way and so that evacuation, if necessary, can take place in an orderly manner.

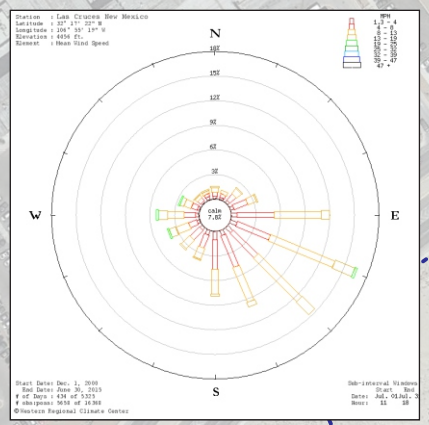
If an evacuation of the worksite is deemed necessary, the following actions will be initiated by the EC:

1. A voice alarm will be given through the worksite radios.
2. Access ways will be cleared of obstructions.
3. Site personnel will proceed to the Site Control Entrance Gate (Primary Meeting Point) or to an alternate egress point (Secondary Meeting Point).
4. Primary and Secondary Meeting Points are proposed for each of the intended waste excavation Areas1, 2 and 3.
5. Primary and Secondary Meeting or Muster Points will be established on a site map, as presented in **Figure II.3.1**
6. On site wind direction indicators will be installed to provide wind direction information for appropriate contingency response.
7. Personnel will exercise good judgment and common sense in using the Primary Evacuation Route to exit the facility, or if necessary, using the Secondary Evacuation Route.
8. If appropriate, cellular phones will be used to initiate contact with local authorities and other site personnel.
9. Emergency response agencies will be notified accordingly.

TABLE 1 – Emergency Contacts

TITLE	NAME	OFFICE	CELL\EMAIL
City Manager	Stuart C. Ed	575.541.2076	sed@las-cruces.org
Utilities Director	Jorge Garcia, PhD, P.E.	575.528.3512	jogarcia@las-cruces.org
Public Works Director	Jorge Garcia, PhD, P.E.	575.528.3512	jogarcia@las-cruces.org
Solid Waste Administrator	Robin Lawrence	575.528.3543	rlawrence@las-cruces.org
Project Manager	Fred Bourger	575-528-3500	575-528-3572 Direct fbourger@las-cruces.org
Site Crew Chief, Emergency Coordinator	To Be Determined		
Site Emergency Coordinator	To Be Determined		
Equipment Operator	Max Gonzales		
Equipment Operator	Jose Ybarra		
Equipment Operator	Sonny Hernandez		
Equipment Operator	Marcelo Archuleta		





Average Wind Direction (WRCC)
Las Cruces July and August 2000-2015

NORTH

WASTE AREA 1

Wind Direction Indicator

Project Control Area

Primary Muster Point

East Lohman Avenue

Old Foothills Trail Road (abandoned)

Primary Ingress/Egress *(locking gate)*

Wind Direction Indicator

WASTE AREA 2

WASTE AREA 3

Paseo de Onate

Mobile Chain Link Fence
4900 lineal feet

Secondary Ingress/Egress *(locking gate)*

Scale (ft)
0 300

WASTE AREA 4
No Excavation Planned

Secondary Muster Point

PRE-1965 FOOTHILLS LANDFILL SITE EVACUATION PLAN

LAS CRUCES, NEW MEXICO

PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915

DATE: 4/8/18	CAD: CadFileName.dwg	PROJECT #:
DRAWN BY: LCK	REVIEWED BY: CWF	Figure II.3.1
APPROVED BY: IKG	www.team-psc.com	

ATTACHMENT 4

Health & Safety Plan

Health & Safety Plan

WASTE EXCVATION PLAN
PRE-1965 FOOTHILLS LANDFILL

Las Cruces, New Mexico

Submitted To:

New Mexico Environment Department
Solid Waste Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469
505.827.0197

Prepared For:

City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
575.541.2000

Prepared By:

Parkhill Smith & Cooper
115 W. Griggs Ave
Las Cruces, NM 88001
505.867.6990

July 2018

PSC Project #: 01003418

PARKHILLSMITH&COOPER

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1.0 GENERAL INFORMATION

Site:	Pre-1965 Foothills Landfill
Project:	Site Corrective Action
Location:	East Lohman Ave and Paseo de Onate, Las Cruces, New Mexico, 87410
Plan Prepared By:	Parkhill Smith and Cooper
Project Objectives:	Excavate municipal waste, level sites
Project Schedule:	Waste Excavation is estimated to begin in August 2018 and is expected to require a minimum of 65 working days.

1.1 Facility Description and Site Operations

The Pre-1965 Foothills Landfill is a pre-regulatory solid waste landfill. The City of Las Cruces intends to have the wastes removed and to develop the property with commercial tracts.

2.0 WASTE CHARACTERISTICS AND HAZARD ASSESSMENT

Waste Types:

Liquid		Solid	X	Sludge		Gas	X

Characteristics:

Corrosive		Ignitable	X	Radioactive	
Toxic		Reactive		Volatile	
Unknown	X	Other			

2.1 Buried Waste

Excavation of buried waste is likely to release odors and/or dust and particulate matter. The waste may also contain landfill gas (including methane and carbon dioxide), and volatile organic compounds (VOCs), as well as other potentially toxic compounds. Direct contact or inhalation should be avoided, and workers should be stationed upwind to the extent practical. Wind indicators will be installed in visible locations at each waste excavation area job site to provide continuous real-time information on wind direction during the project. As a preventative measure against the possibility of dangerous landfill gas inhalation or asphyxiation, continuous monitoring of CH_4, O_2, and H_2S concentrations in air will be conducted. In addition, the work environment may be monitored for the presence of CO_2, volatile organic compounds (VOCs), hydrogen sulfide

(H_2S), and carbon monoxide (CO). Landfill gases will be monitored with a MultiRAE, or another equivalent device(s), continuously during excavation activities. LFG data will be recorded every 15 to 30 minutes depending upon the activities being performed. See Section 2.4.1 of the Waste Excavation Plan for further details on LFG monitoring. Detailed below are some of the common symptoms and side-effects of exposure to common LFG's and a low O_2 environment which may result from LFG release.

2.2 Methane Gas (CH_4)

Methane may be present in the removed waste, as well as in the resultant excavation. Methane is potentially explosive at concentrations of 5% to 15% by volume in air. Therefore, for the duration of this project, smoking is prohibited within 100 feet of the excavation, including in enclosed equipment cabs. Workers will be notified in the event that methane concentrations in the excavation or work area exceed 0.5% by volume in air (10% of the LEL). If methane is detected in excess of 3% by volume in air (60% of the LEL), work will be halted until the concentration decreases below 3% gas or until the on-site monitoring personnel determine it is safe to continue construction. While methane is not poisonous, it has the potential to cause asphyxiation by oxygen displacement. Symptoms of methane exposure include headaches, heart palpitations, cognitive impairment, dizziness, and loss of motor coordination. Site personnel should look for these symptoms in themselves and others at all times during excavation activities.

2.3 Oxygen (O_2)

Low oxygen levels (O_2) during waste excavation typically result from displacement by other gases including but not limited to carbon dioxide and methane. Work will be halted in the event that oxygen (O_2) concentrations reach a concentration of less than 19.5% by volume in the air, or until the concentration decreases below the threshold. Low levels of O_2 can lead to a condition known as hypoxia which may result in impaired judgment, lack of coordination, behavior changes, dizziness, fatigue and ultimately collapse and death. Symptoms of hypoxia include shortness of breath while resting, decreased tolerance to physical activity, feelings of choking, wheezing, frequent cough, and bluish discoloration of the skin.

2.4 Hydrogen Sulfide (H_2S)

H_2S may be present in the removed waste, as well as in the resultant excavation. H_2S is commonly identified by the characteristic odor of rotten eggs. H_2S is known to be harmful in concentrations as low as 2-5 ppm with prolonged exposure. If H_2S is detected in excess of 5

ppm, work will be halted until the concentration decreases below 5 ppm or until the on-site monitoring personnel determine it is safe to continue construction. Symptoms of H_2S exposure include nausea, headaches, tearing of the eyes, loss of appetite, poor memory, and fatigue.

2.5 Other Landfill Gases and Particulates

Carbon dioxide (CO_2) is a component of landfill gas. The health and safety concern associated with CO_2 is due to its potential to act as an asphyxiant. CO_2 kills by displacing O_2 within an environment. For this reason, O_2 concentration should be continuously monitored during waste excavation activities. The work for this project will be conducted outdoors where gases will disperse, and it is therefore unlikely that carbon dioxide will have the chance to accumulate and displace oxygen, creating the potential for asphyxiation. If possible, site personnel should position themselves upwind of excavations. Symptoms of CO_2 exposure include headaches, heart palpitations, cognitive impairment, dizziness, and loss of motor coordination.

Volatile organic compounds (VOCs) may be present in the waste excavated and in landfill gas. Some VOCs are known or suspected carcinogens. Therefore, direct contact with waste or landfill gas should be avoided. If possible, site personnel should position themselves upwind of excavations. Symptoms of VOC exposure include conjunctival irritation, nose and throat discomfort, headache, nausea, and allergic skin reactions. However, carcinogens at any concentration may be potentially cancerous and should be avoided whether or not symptoms of exposure are present.

Carbon Monoxide (CO) may be present in the waste excavated and in landfill gas. Additionally, CO may accumulate due to heavy equipment involved in waste excavation activities. If possible, site personnel should position themselves upwind of excavations and excavation equipment. Symptoms of CO exposure include headache, weakness, dizziness, nausea or vomiting, shortness of breath, and loss of consciousness.

Dust may be generated during excavation operations. Dust may contain contaminants by virtue of its contact with buried waste. Direct contact with dust should also be avoided and site personnel should position themselves upwind, to the extent practical. Excavation will be conducted in accordance with dust control protocol set forth in City Ordinance Chapter 32-302 – Wind Erosion Control. The City's Public Works Department will be provided a copy of the Waste Excavation plan and will be asked to comment on operational and contingency plans relative to

the proposed dust control measures. Dust control will primarily be accomplished through use of the City's water truck, and stopping work during periods of high winds. Generally, to ensure that dust generation is kept to a minimum, excavation activities will not be performed during periods of high winds or inclement weather.

3.0 SITE SAFETY WORK PLAN

3.1 Site Perimeter and Security

The perimeters of Waste Areas 1, 2 and 3 of the Pre-1965 Foothills Landfill will be equipped with security fences to limit access of vehicles and pedestrians to the worksites. Access to the waste excavation areas will be limited to personnel and vehicles associated with project operations, and the work area will be secured after hours.

3.2 Support Zone

The primary support zone for this project will be designated on an as needed basis near the construction working area.

3.3 Personal Protection

Modified Level D personal protective equipment (PPE) including but not limited to a hard hat, steel-toe boots, eye protection, and safety vests will be utilized by project personnel. Additional safety equipment may include chemical-resistant gloves, respirators, spill-response kit, first aid kit, fire extinguishers, and appropriate sun protection. Additional PPE requirements for each contractor and subcontractor may supersede this minimum requirement, at their discretion.

4.0 WORK LIMITATIONS

Work will be performed during daytime conditions between the hours of approximately 8:00 a.m. to 4:00 p.m., Monday through Friday. Cessation of work could occur to due inclement weather, high winds, or detection of hazardous or unauthorized wastes.

This Health & Safety Plan does not include provisions for upgrading levels of PPE for project personnel. If work conditions indicate that upgraded PPE is warranted to protect the health and safety of project personnel, project personnel will demobilize from the work zone until safe working conditions are re-established.

5.0 EMERGENCY PROCEDURES

Basic First Aid and emergency equipment will be located on-site in all on-site vehicles and heavy equipment. Should an accident occur, work will immediately cease within the waste excavation project area. The Site Safety Manager will be contacted immediately. Should no outside assistance be necessary, personnel will still contact the Site Safety Manager and report the accident.

5.1 Hospital Directions

The nearest trauma hospital is the Mountain View Hospital;4311 East Lohman Ave., Las Cruces, NM. A Hospital Location Map identifying the route from the Landfill to the hospital is attached as **Figure 1**. Directions to the Mountain View Hospital are also provided below:

1. Exit the Landfill excavation site to old Foothills Dr. Travel 0.46 miles east
2. Turn left (north) on Sonoma Ranch Blvd. Travel 0.33 miles
3. Turn left (west) onto East Lohman Ave. Travel 0.48 miles
4. Turn right (north) at Mountain View Hospital, 4311 East Lohman Ave.

6.0 KEY PROJECT PERSONNEL AND EMERGENCY PHONE NUMBERS

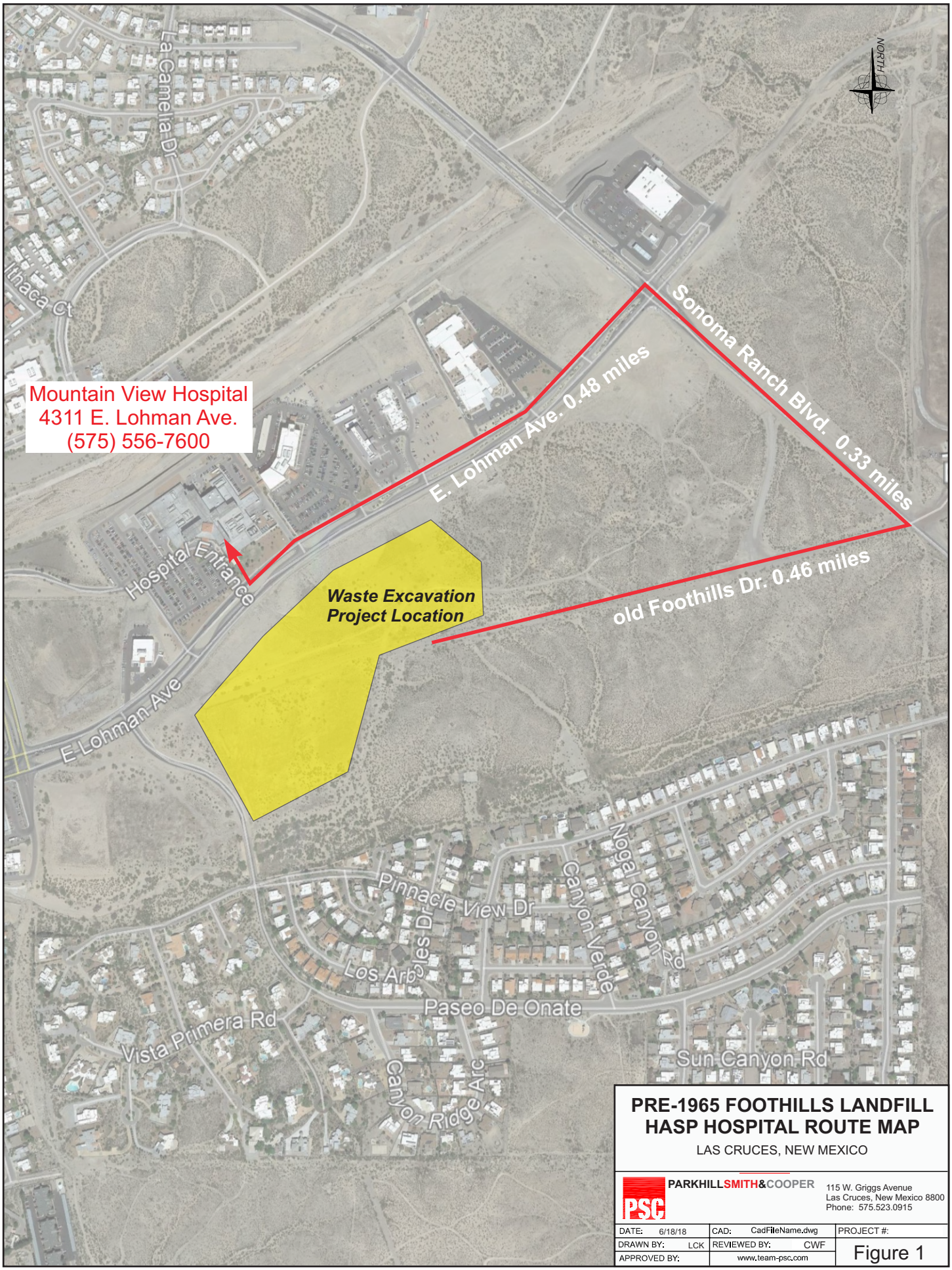
Information for key project personnel and emergency phone numbers is provided in **Table 1**.

TABLE 1 – Key Personnel and Emergency Phone Numbers

Key City Project Personnel				
Name	**Title**	**Affiliation**	**Office Phone**	**E-mail**
City of Las Cruces Administrative Personnel				
Stuart C. Ed	City Manager	City of Las Cruces	575.541.2076	sed@las-cruces.org
Jorge Garcia PhD, P.E.	Public Works Director	City of Las Cruces	575.528.3512	jogarcia@las-cruces.org
Robin Lawrence	Solid Waste Administrator	City of Las Cruces	575.528.3543	rlawrence@las-cruces.org
Joshua Roseblatt	Regulatory Env. Analyst	City of Las Cruces	575.528.3704	jrosenblatt@las-cruces.org
Miguel Fernandez	Commercial Supervisor	City of Las Cruces	575.528.3532	mfernandez@las-cruces.org
City of Las Cruces Project Personnel				
Fred Bourger	Project Manager	City of Las Cruces	575.528.3572	fbourger@las-cruces.org
Excavation Site Crew Chief and Emergency Coordinator -- TO BE DETERMINED				
Excavation Site Crew Chief 2 and Alternate Emergency Coordinator -- TO BE DETERMINED				
Max Gonzales	Equipment Operator	City of Las Cruces		
Jose Ybarra	Equipment Operator	City of Las Cruces		
Sonny Hernandez	Equipment Operator	City of Las Cruces		
Marcelo Archeluta	Equipment Operator	City of Las Cruces		

**All site crew to be 40-hour OSHA HAZWOPER certified*

Emergency Phone Numbers		
Contact	**Address**	**Phone**
Emergency		911
Poison/Drug Information Line		800.222.1222
NMED 24-hour emergency line		505.827.9329
City of Las Cruces Police Dept.	217 E. Picacho Ave	575.526.0795
City of Las /Cruces Fire Department	201 E. Picacho Ave	575.528.3473
Dona Ana County Sherff Department	845 N. Motel Blvd	575.525.1911
NM State Police	4055 Sonoma Ranch Blvd	575.524.6111
Dona Ana County Fire Department	1430 Portland Drive	575.647.7923
Mountainview Hospital	4311 East Lohman	575.556.7600
NMED-SWB 24-hour emergency		505.827.9329



PRE-1965 FOOTHILLS LANDFILL
HASP HOSPITAL ROUTE MAP

LAS CRUCES, NEW MEXICO

PARKHILLSMITH&COOPER
115 W. Griggs Avenue
Las Cruces, New Mexico 8800
Phone: 575.523.0915

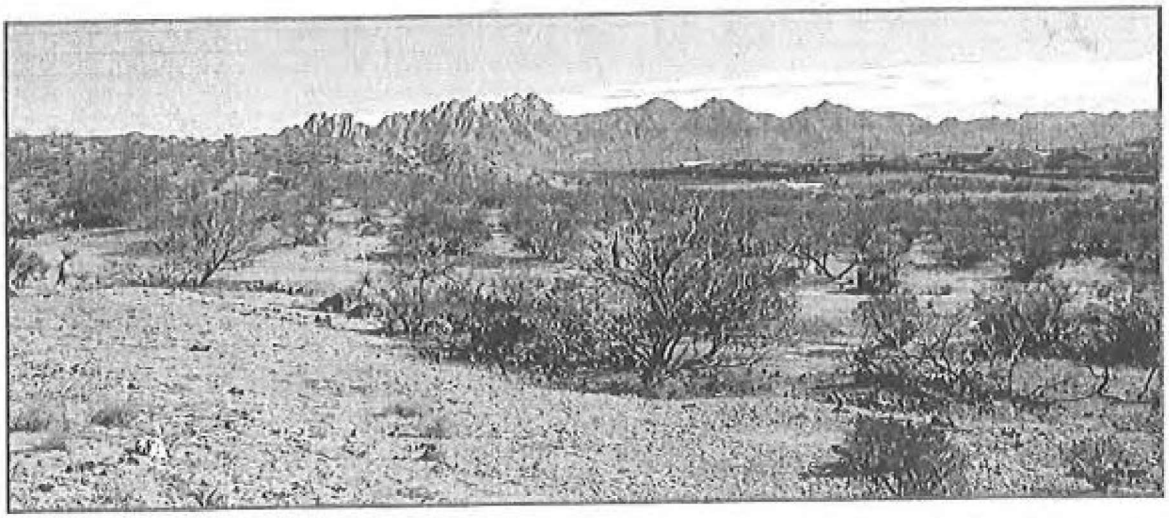
DATE: 6/18/18	CAD: CadFileName.dwg	PROJECT #:
DRAWN BY: LCK	REVIEWED BY: CWF	Figure 1
APPROVED BY:	www.team-psc.com	

ATTACHMENT 5

SMA 2002 Phase II ESA Investigation Report

Christine Ochs

Phase II Environmental Site Assessment Report for the Parcel of Land Located at the Southeast Corner of Lohman Avenue & Paseo De Oñate Las Cruces, New Mexico



February 22, 2002

Prepared for submittal to the
City of Las Cruces

SOUDER, MILLER & ASSOCIATES

CIVIL/ENVIRONMENTAL SCIENTISTS & ENGINEERS

401 Seventeenth Street, Suite 4 • Las Cruces, NM 88005
(505) 647-0799 • (800) 460-5366 • Fax (505) 647-0680
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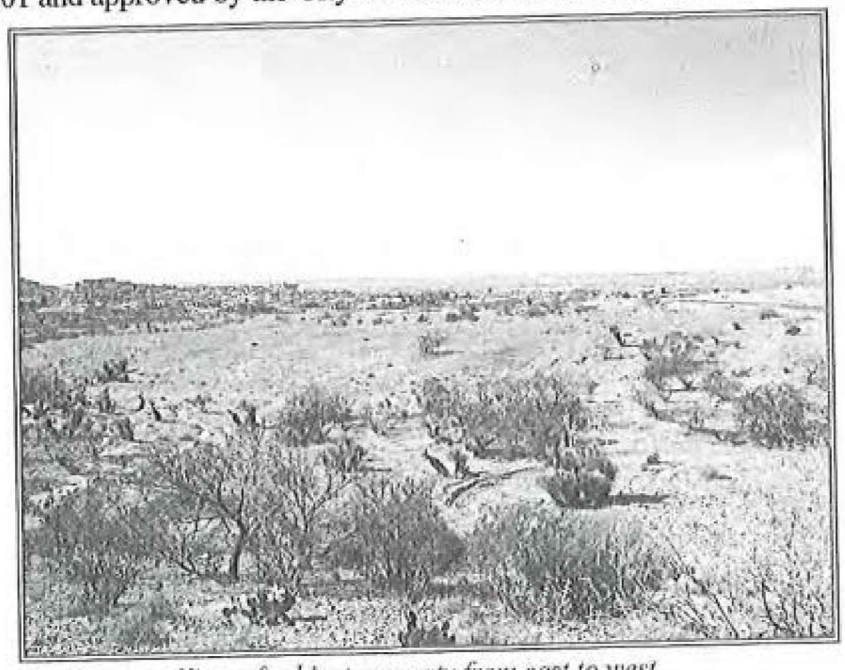
SANTA FE - FARMINGTON - ALBUQUERQUE - LAS CRUCES

PHASE II REPORT FOR PARCEL OF LAND LOCATED AT THE SOUTHEAST CORNER OF LOHMAN AVENUE AND PASEO DE OÑATE LAS CRUCES, NEW MEXICO

February 22, 2002

1.0 EXECUTIVE SUMMARY

The following information presents the results of the *Phase II–Environmental Site Assessment* completed for the parcel of land (subject property) located at the southeast corner of Lohman Avenue and Paseo de Oñate in Las Cruces, New Mexico. The subject property is part of a former landfill that discontinued receiving waste prior to implementation of the current New Mexico Environment Department (NMED) Solid Waste Bureau (SWB) regulations The current NMED SWB regulations (20 NMAC 9.1, October, 1995) govern operation and closure of facilities which received waste after May 14, 1989. The purpose and scope of this investigation is to identify typical, and suspected contaminants of concern associated with solid waste facilities. This investigation was completed as outlined in the proposal submitted by Souder, Miller & Associates (SMA) dated December 18, 2001 and approved by the City of Las Cruces on December 19, 2001.



View of subject property from east to west.

In total, twelve (12) samples were collected for analysis for asbestos content, three (3) samples were collected for volatile and semi-volatile hydrocarbon analysis, six (6) samples were collected for total petroleum hydrocarbon content analysis, one (1) sample was collected for pesticide and polychlorinated biphenyl (PCB) content analysis, four (4) samples were collected for leached metals analysis, and methane content was evaluated in five (5) locations. Of all of the testing performed, only the asbestos testing showed results above regulatory standards. In specific, three (3) asbestos samples contained measurable amounts of asbestos. Two (2) of these are considered highly friable and are characterized National Emission Standards for Hazardous Air Pollutants (NESHAP)

regulated asbestos containing material (RACM) requiring special abatement procedures.

2.0 INTRODUCTION

On January 2, 2002, SMA conducted a site reconnaissance of the subject property to determine sample locations. On January 3 and 4, 2002, SMA collected samples for laboratory analysis, measured methane concentrations, and thickness of soil cover from the dumpsite located on the aforementioned tract of land. Soil samples were collected for laboratory analysis of various hydrocarbon compounds, leached metals, pesticides, and/or polychlorinated biphenyl (PCBs). Bulk samples, consisting of fragments of building materials, automotive parts, and various suspect materials were collected for asbestos analysis. A site map illustrating sample locations, the landfill boundary, and adjacent property is presented as Figure 1. Appendix A contains field data sheets and Appendix B contains analytical laboratory data reports. Measurement of potential methane gas was conducted using a Rae Systems Four-Gas Meter and measurement of soil cover thickness was conducted during soil sample collection.

The vicinity map presented as Figure 2 shows the subject property location on the "Tortugas Mountain, New Mexico (1955)" United States Geological Survey 7.5 minute quadrangle map. The U. S. Department of Agriculture (USDA) Soil Survey of Dona Ana County Area, New Mexico (1980), presented as Figure 3, classifies the area of the subject property as Dumpsite (DS). The center of property is located at approximately latitude 32° 19.23' north and longitude 106° 43.65' west. The predominant soil found at the subject property consisted of tan-brown sand with some clay that was dry and unconsolidated and some gravel. A large portion of the subject property is devoid of vegetation.

Surface debris viewed from southern edge of subject property

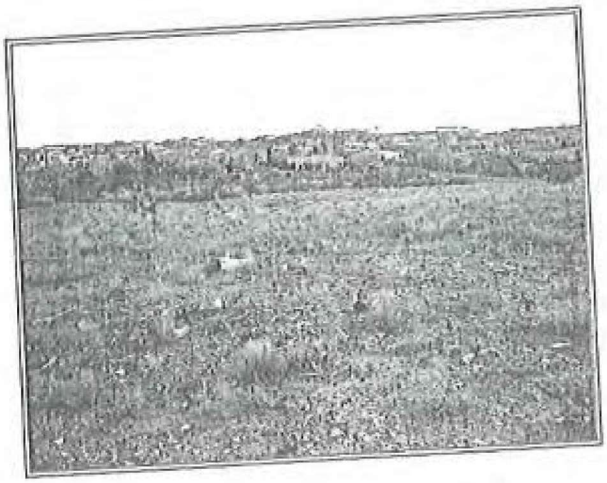
3.0 TESTING RESULTS

3.1 Bulk Sample Collection for Asbestos Analysis

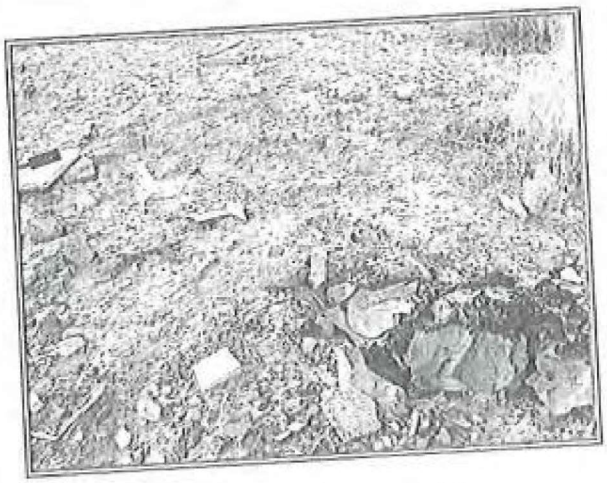
SMA submitted fragments of twelve (12) samples consisting of various suspect materials collected from the subject property to Fiberquant Analytical Services for polarized light microscope analysis for asbestos by EPA Method 600/R-93/116. The samples were considered representative of all visible building materials, automotive parts, and various suspect materials contained within the subject property. Results of the twelve (12) samples analyzed for asbestos containing material (ACM) show that three (3) samples, A-1, A-6, and A-12, contain chrysotile and/or crocidolite asbestos. All three (3) samples with detectable asbestos are in excess of current Environmental Protection Agency (EPA) regulations. The remaining nine (9) samples contain no detectable asbestos. A summary of laboratory data is presented as attached Table 1. Laboratory analysis of samples A-2, Layer #2 and A-12, Layer #1 and Layer #2 are characterized as National Emission Standards for Hazardous Air Pollutants (NESHAP) regulated asbestos containing material (RACM). Analysis of sample A-6, Layer #1 is characterized as a NESHAP category II non-friable asbestos. The table below shows the sample identification and characteristics for the samples containing ACM.

Sample Number	Sample Material	Asbestos Type (% of Sample)
A-2, Layer #2	Backing, white, *highly friable*	Chrysotile (40% to 50%)
A-6, Layer #1	Cement/ASB board, gray, *non-friable*	Chrysotile (10% to 20%) and Crocidolite (2% to 5%)
A-12, Layer #1	Ply roofing/bitumen, black, *highly friable*	Chrysotile (40% to 50%)
A-12, Layer #2	Ply roofing/bitumen, black, *highly friable*	Chrysotile (40% to 50%)

Category II non-friable ACM includes any non-friable ACM that is not identified as Category I non-friable ACM. Category I non-friable ACM includes gaskets, resilient floor coverings, and asphalt roofing products. However, by NMED Air Quality Bureau interpretation of NESHAP regulation, any material or layer of a material containing greater than 1% asbestos, which may become friable during installation or removal is considered to be a regulated asbestos containing material (RACM) and will need to be treated differently than non-RACM. RACM, as defined by NMED Air Quality Bureau, includes friable ACM, NESHAP category I non-friable ACM that has become friable, and/or category II non-friable ACM that may become friable.



View of area with suspect ACM

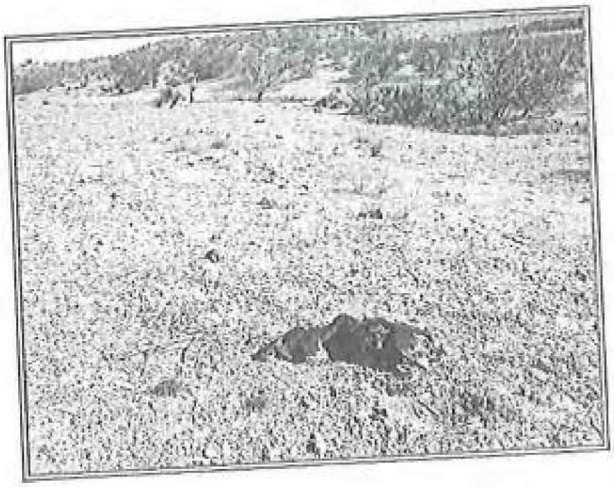


View of suspect ACM

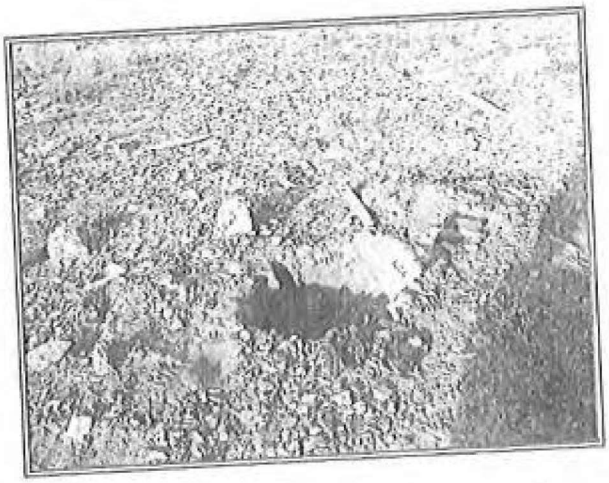
3.2 Soil Sample Collection for Hydrocarbon Analysis

SMA collected fourteen (14) soil samples for laboratory hydrocarbon analysis from the subject property. Sample locations are illustrated in Figure 1. These samples were submitted to Hall Environmental Analytical Laboratory for analysis of various hydrocarbon compounds, leached metals, pesticides, and/or PCBs by various EPA methods.

Three (3) samples (HC-1, HC-2, and HC-3) were collected for analysis of various volatile and semi-volatile hydrocarbon compounds by EPA method 8260. Sample results for HC-1, HC-2, and HC-3 revealed no detectable concentrations for hydrocarbon compounds such as benzene, naphthalene, methyl tertiary butyl ether (MTBE), tetrachloroethene (PCE), chloroform, or trichloroethene (TCE) in the samples analyzed by method 8260. Six (6) samples (WO-1, WO-2, WO-3, WO-4, WO-5, and WO-6) were collected for analysis of various organic range hydrocarbon compounds by EPA method 8015. Laboratory results of WO-1 through WO-6 revealed no detectable concentrations for gasoline range, diesel range, or motor oil range organic hydrocarbon compounds in the samples analyzed by method 8015. One sample (CP-1) was collected for analysis of potential pesticides and/or PCBs by EPA methods 8081/8082. Analytical results of CP-1 revealed no detectable concentrations of any pesticides or PCBs as analyzed by methods 8081/8082. A summary of all hydrocarbon sampling results is presented in attached Table 2.



Eastern edge of subject property



Crushed oil filters at a WO sample point

Four (4) samples (LM-1, LM-2, LM-3, and LM-4) were collected for analysis of leached metals, silver (Ag), arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), lead (Pb), selenium (Se), and mercury (Hg), associated with waste oil, batteries, and transformers by EPA methods 1311/6010/6020/7470. Analytical laboratory results revealed detectable concentrations of at least one metal in each of the four samples, however all concentrations except for arsenic are below the most stringent current EPA soil screening levels (ingestion pathway for children in a residential development as reported in EPA publication EPA-540/R-96/018). In addition, all concentrations are below applicable NMED soil screening levels published by the NMED Hazardous Waste Bureau (HWB) and Ground Water Quality Bureau (GWQB) Voluntary Remediation Program (VRP). A summary of soil sample results for LM-1 through LM-4 with EPA soil screening levels is presented as attached Table 3.

Oxidized and burned material at an LM sample point

3.3 Methane Sample Collection and Waste Cover Thickness

SMA conducted spot methane checks in five (5) locations, illustrated in Figure 1, to determine methane concentrations for the subject property. A list of methane concentrations as measured relative to lower explosive limit (LEL) from the five sample points is presented below.

Methane - Lower Explosive Limit *(%)*				
M-1	M-2	M-3	M-4	M-5
0.0	1.0	1.0	0.0	0.0

Thickness of soil cover was measured at various points of the subject property in conjunction with soil sample collection. Typically, waste was exposed at ground surface in several areas of the property, especially along the south and east boundary of the site, and average thickness of soil cover was less than one-foot. The thickness of soil cover along the north edge of the subject property however was at least three feet below ground surface. Soils across the subject property consisted of dry, unconsolidated sand with some clay and minor amounts of gravel.

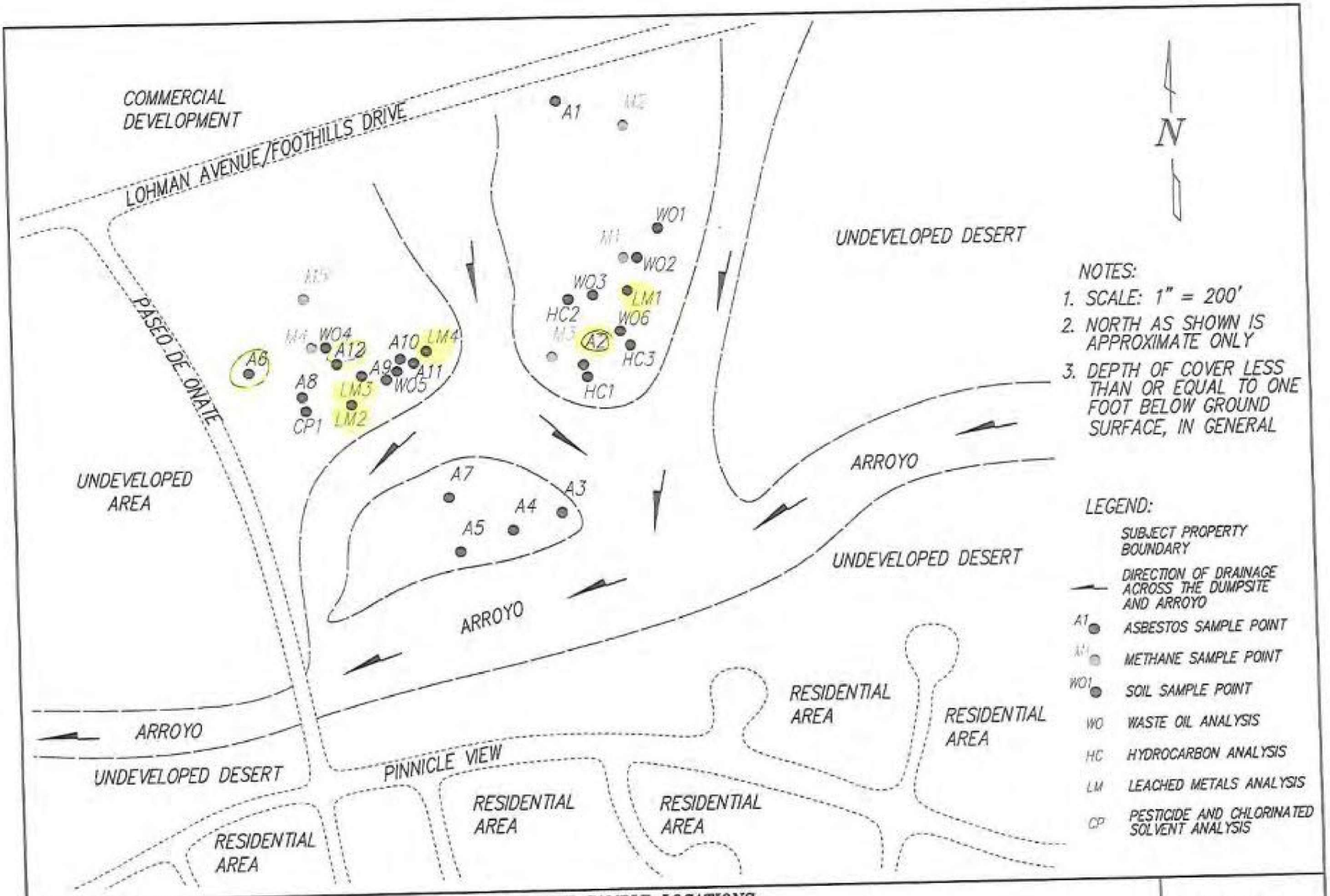
Thickness of waste was also measured during sample collection. Waste was encountered at total depth of every sample point and average total depth of the excavations was at least three feet below ground surface. As illustrated in Figure 1, waste encountered on the eastern half of the subject property consisted primarily of residential type waste and the western half of the site appeared to contain primarily commercial/industrial type waste. No medical waste was encountered during the sampling.

4.0 CONCLUSIONS

The area of the study has been used for the disposal of both residential and commercial waste. Waste is exposed in several areas and generally has cover thickness of less than one foot. No substantial methane accumulations were identified during the investigation although, given the isolated nature of the waste and cover material, pockets may exist. Evaluation of the analytical laboratory data of soil samples and asbestos samples collected from the subject property and data collected by direct measurement reveal two areas of concern.

The first area of concern is the laboratory results of samples analyzed for leached metals, which revealed detectable concentrations of metals in soil. All detectable concentrations were below EPA soil screening guidelines for metals for children in residential areas except arsenic. Although the soil screening levels used are the most conservative and the results do not likely constitute a chronic hazard for the subject property, further evaluation of background levels for arsenic (at a minimum) should be considered for this site.

The second area of concern is the verified presence of materials classified by NMED and NESHAP as RACM. In specific, samples A-2, Layer #2 and A-12, Layer #1 and Layer #2 each contain greater than 1% asbestos and each are considered RACM. Because of the verified presence of RACM, all suspect material within the subject property boundary should also be tested prior to any disturbance, or removal and final disposal at a permitted facility.



SITE MAP WITH SAMPLE LOCATIONS
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

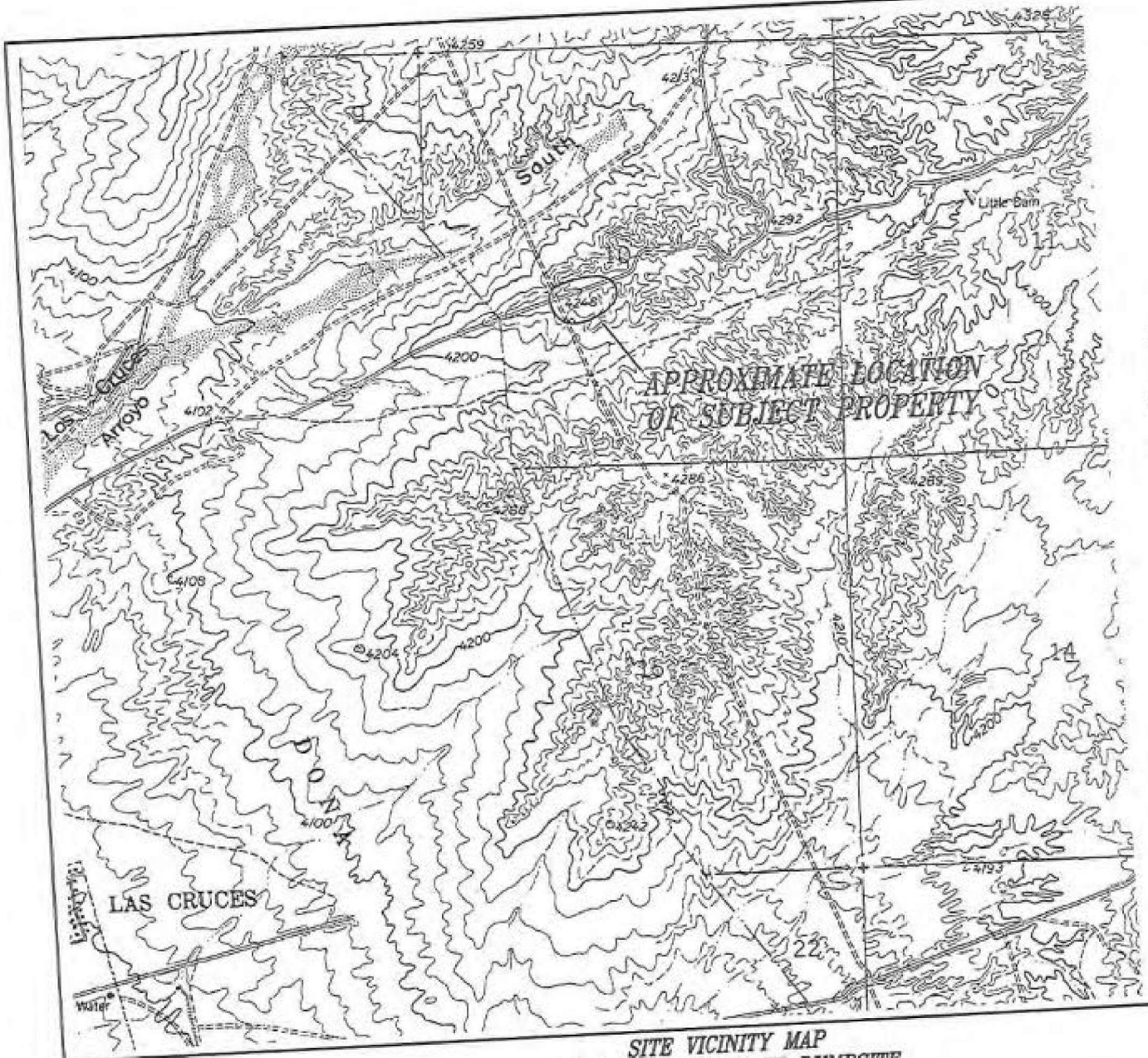
FIGURE 1

131345SF1
02-21-02

REVISIONS
BY _____ DATE _____ DESCR. _____
BY _____ DATE _____ DESCR. _____

DRAWN LNK 2-02 NMCS #266
CHECKED KET 2-02 NMCS #008
APPROVED KET 2-02 NMCS #008

SOUDER, MILLER & ASSOCIATES
401 SEVENTEENTH STREET, SUITE 4, LAS CRUCES, NEW MEXICO 88005
(505) 647-0799 (505) 647-0660 (FAX) WWW.MILLERENG.COM
SANTA FE – FARMINGTON – ALBUQUERQUE – LAS CRUCES



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NOTES:

1. SCALE 1" = 2,000'
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. BASE MAP IS FROM TORTUGAS MOUNTAIN, NEW MEXICO USGS 7.5 MINUTE (1955) QUADRANGLE MAP

SITE VICINITY MAP
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 2

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401 SEVENTEENTH STREET, SUITE 4, LAS CRUCES, NEW MEXICO 88005
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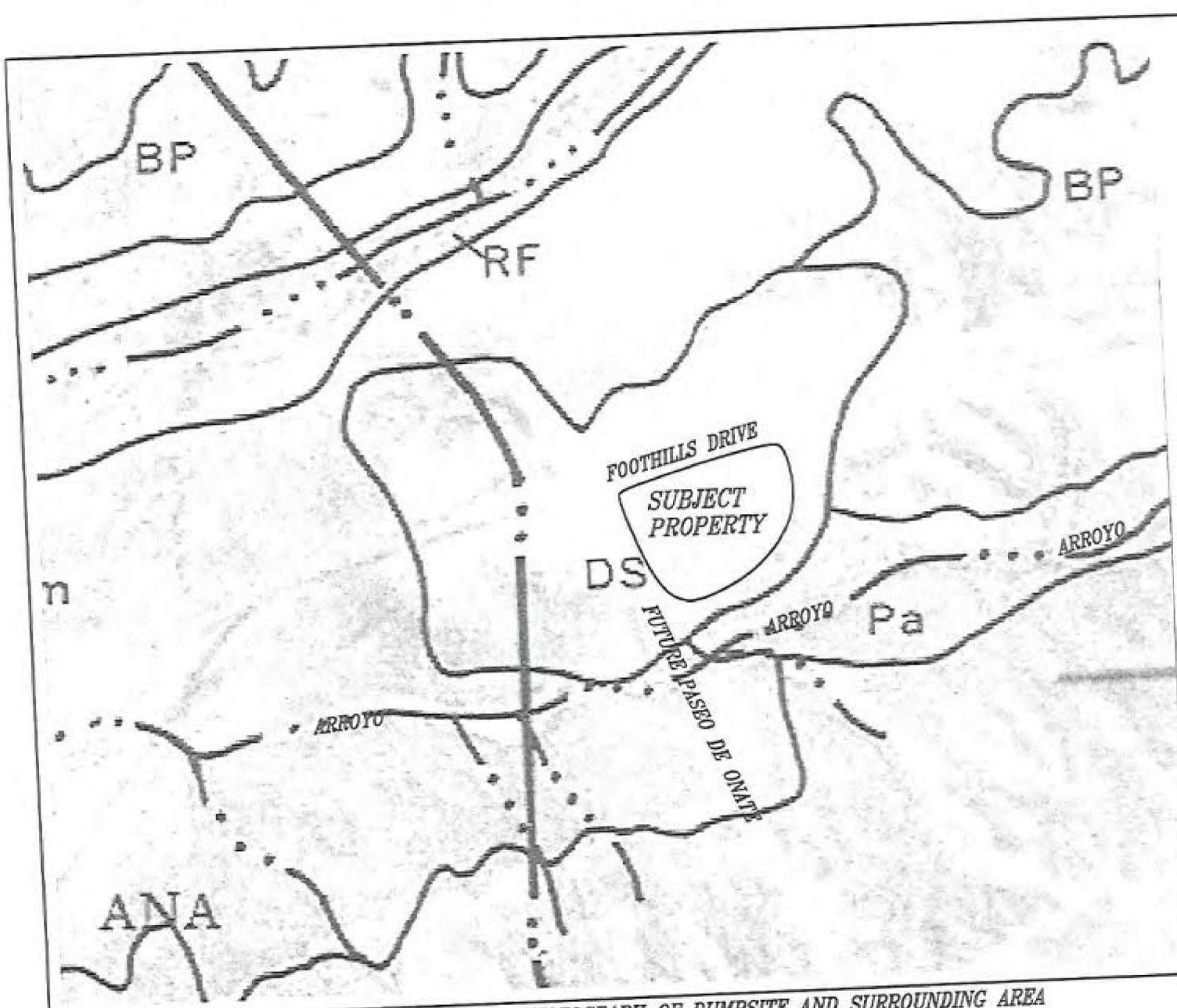
02-22-02



NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY USDA SOIL SURVEY OF DONA ANA COUNTY AREA, NM, 1980
4. DS = DUMPSITE BY USDA SOIL SURVEY OF DONA ANA COUNTY AREA, NM, 1980 DEFINITION

SOIL SURVEY AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 3

13134563
02-22-02

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BY _____ DATE _____ DESCR. _____

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CHECKED KET 02-02 NMCS #008
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(505) 647-0799 (505) 647-0680 (FAX) WWW.MILLERENG.COM
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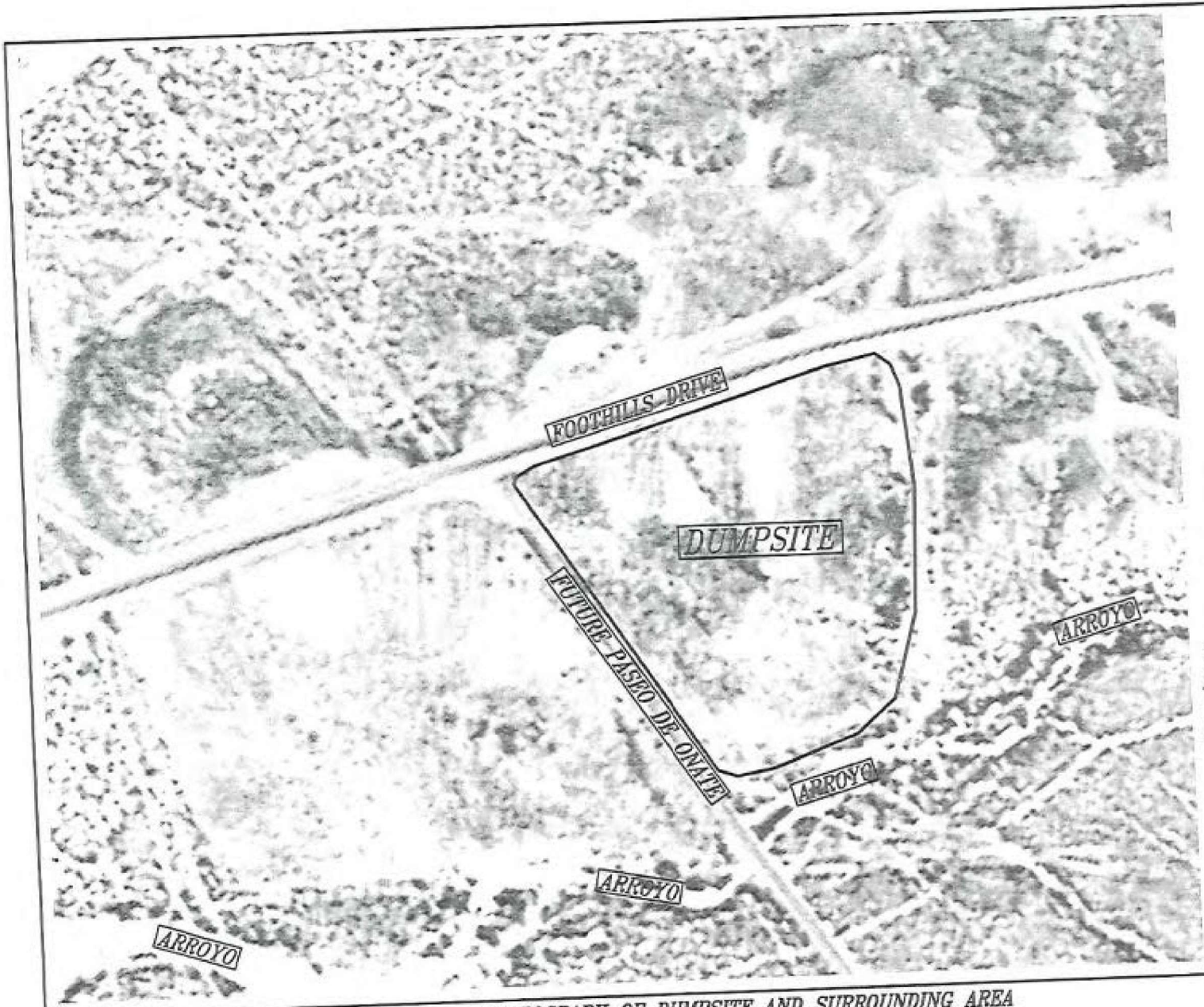

NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY NMSHTD AERIAL PHOTOGRAPHY UNIT, 1980

1980 AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 4

13134568F3
02-22-02

REVISIONS
BY _____ DATE _____ DESCR. _____
BY _____ DATE _____ DESCR. _____

DRAWN LNK 02-02 NMCS #266
CHECKED KET 02-02 NMCS #008
APPROVED KET 02-02 NMCS #008

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(505) 647-0799 (505) 647-0680 (FAX) WWW.MILLERENG.COM
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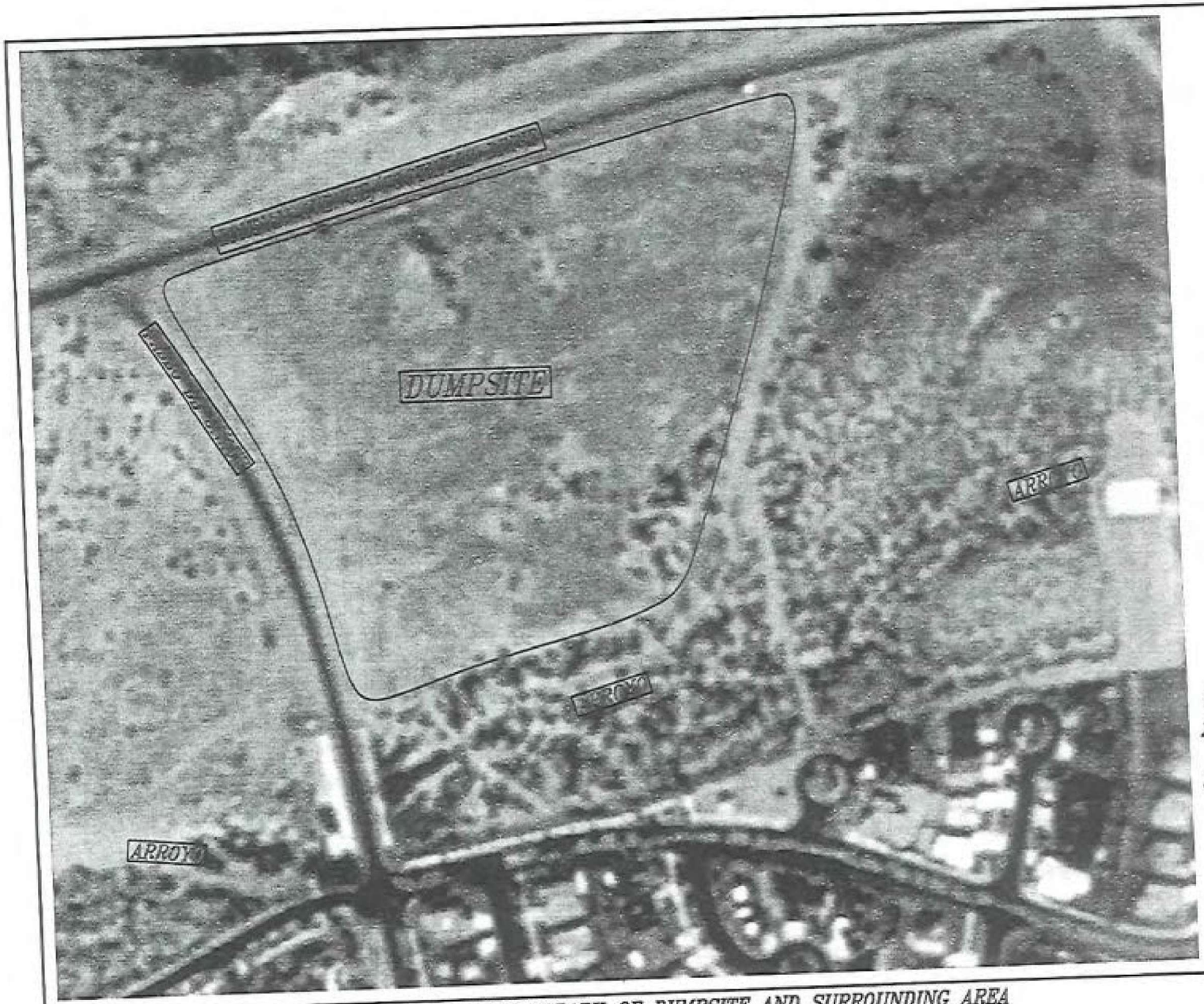

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NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY TERRA-SERVER, 1996

1996 AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 5

SOUDER, MILLER & ASSOCIATES
401 SEVENTEENTH STREET, SUITE 4, LAS CRUCES, NEW MEXICO 88005
(505) 647-0799 (505) 647-0680 (FAX) WWW.MILLERENG.COM
SANTA FE - FARMINGTON - ALBUQUERQUE - LAS CRUCES

DRAWN LNK 02-02 NMCS #266
CHECKED KET 02-02 NMCS #008
APPROVED KET 02-02 NMCS #008

REVISIONS
BY ____ DATE ____ DESCR. ____
BY ____ DATE ____ DESCR. ____

1314587.4
02-22-02

Table 1
Asbestos Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Sample #	Layer #	Sample Material	Asbestos Type (percentage of sample)
A-1	1	Paint, gray, very non-friable	no asbestos detected
	2	Acoustical tile, tan, highly friable	no asbestos detected
A-2	1	Surfacing , yellow, very non-friable	no asbestos detected
	2	Backing, white, highly friable	chrysotile asbestos (40%-50%)
A-3	1	Insulation, white, highly friable	no asbestos detected
A-4	1	Insulation wrap, white, non-friable	no asbestos detected
	2	Insulation, white, highly friable	no asbestos detected
A-5	1	Roll roofing/shingle, black, highly friable	no asbestos detected
	2	Roll roofing/shingle, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Roll roofing/shingle, black, highly friable	no asbestos detected
	6	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-6	1	Cement/ASB board, gray, non-friable	chrysotile/crocidolite asbestos (10%-20% / 2%-5%)
A-7	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-8	1	Coating, black, very non-friable	no asbestos detected
	2	Insulation, orange, highly friable	no asbestos detected
A-9	1	Roll roofing/shingle, black, very non-friable	no asbestos detected
	2	Roll roofing/shingle, black very non-friable	no asbestos detected
A-10	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, very non-friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Ply roofing/bitumen, black, highly friable	no asbestos detected
	6	Ply roofing/bitumen, black, highly friable	no asbestos detected
	7	Ply roofing/bitumen, black, highly friable	no asbestos detected
	8	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-11	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-12	1	Ply roofing/bitumen, black, highly friable	chrysotile asbestos (40%-50%)
	2	Ply roofing/bitumen, black, highly friable	chrysotile asbestos (40%-50%)

Table 2
Abbreviated Summary of Hydrocarbon Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Sample	CP-1	WO-1	WO-2	WO-3	WO-4	WO-5	WO-6	HC-1	HC-2	HC-3
Date	03-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02	03-Jan-02	03-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02
EPA Method	8081/8082	8015	8015	8015	8015	8015	8015	8260	8260	8260
Gasoline Range Organics		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Diesel Range Organics		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Motor Oil Range Organics		<50	<50	<50	<50	<50	<50			
Benzene								<0.050	<0.050	<0.050
Toluene								<0.050	<0.050	<0.050
Total Xylenes								<0.050	<0.050	<0.050
Total Naphthalenes								<0.5	<0.5	<0.5
Tetrachloroethene (PCE)								<0.050	<0.050	<0.050
Trichloroethene (TCE)								<0.050	<0.050	<0.050
Total Aroclor (PCBs)	<0.110									
4,4'-DDT	<0.0020									
Chlordane	<0.10									
Toxaphene	<0.10									

Notes:
All results reported in mg/Kg
Only the most common contaminants reported in the abbreviated (summary) table, all results included in laboratory reports
All results for samples shown in this table are below laboratory/method detection limits

Table 3
Summary of Metals Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Date	Location	EPA Method	Analytical Results *(in mg/kg)*							
			Ag	As	Ba	Cd	Cr	Pb	Se	Hg
04-Jan-02	LM-1	6010/7471	<0.5	<1.0	130	<0.2	5.1	12.9	<1.0	<0.033
03-Jan-02	LM-2	6010/7471	<0.5	1.2	243	0.3	5.3	21.6	<1.0	<0.033
03-Jan-02	LM-3	6010/7471	<0.5	<1.0	289	0.3	9.3	163	<1.0	0.105
03-Jan-02	LM-4	6010/7471	0.5	<1.0	220	0.3	5.8	28.6	<1.0	0.045

EPA Residential Child Soil Screening Levels for Ingestion / Inhalation *(in mg/kg)**								
Pathway	Ag	As	Ba	Cd	Cr	Pb	Se	Hg
Ingestion	390	0.43	5,500	78	390	400	390	23
Inhalation	na	750	$6.9x10^5$	1,800	270	na	na	10

NMED Risk Based Corrective Action Residential Soil Screening Levels *(in mg/kg)***							
Ag	As	Ba	Cd	Cr	Pb	Se	Hg
380	3.9	5,200	70	2,300	400	3,800	6.1

Metals Abbreviations:
Ag = silver; As = arsenic, Ba = barium, Cd = cadmium; Cr = chromium; Pb = lead; Se = selenium, Hg = mercury

Notes:
Soil samples analyzed for elements Ag through Se used EPA method 6010.
Soil sample analyzed for element Hg used EPA method 7471.
*User's Guide, 2nd Edition, EPA Pub. 540/R-96/018, July, 1996.
**NMED Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program Technical Background Document for Development of Soil Screening Levels, Table A-1, December 18, 2000

Appendix A: Field Data Sheets

Date: 2 Jan 02

CLC Paseo de Onate Site Recon

Pt. #	Point Location/Description	N(GPS)	W (GPS)	Northing 09821	Easting 93396
1	NE Corner Pde Onate / Foothills	32° 19.259'	106° 43.731'	480832.~~46891~~	1492498.~~84442~~
2	NW Corner P de Onate / Foothills	32° 19.257'	106° 43.741'	480820.20202	1492447.39557
3	SW Corner of Lot 1	32° 19.162'	106° 43.675'	480242.68614	1492784.62252
4	SE Corner of Lot 2	32° 19.162'	106° 43.687'	480242.~~68614~~ 90172	1492722.84040
5	SE Corner of Lot 1 = A3				
6	NE Corner of Lot 1	32° 19.307'	106° 43.555'	48119.09251	1493406.34811
7	A1	32° 19.292'	106° 43.603'	481029.24379	1493158.82162
8	WO 1 - oil filter, tire	32° 19.256'	106° 43.573	480810.23383	1493312.30322
9	WO2 - oil filter, rusty containers	32° 19.249'	106° 43.579'	480767.97911	1493281.22405
10	M1 > Meth = Ø, CO = Ø, O_2 = 20.1	19.249'	43.583'	480768.07065	1493260.63034
11	LM1 - rusty aerosol containers, etc.	19.241'	43.582'	480719.54261	1493265.56314
12	A2	19.223'	43.595'	610.70361	198.14812
13	HC1 - Paint cans, thinner / camp stove fuel	19.220'	43.594'	592.49128	203.21568
14	A3	19.187'	43.602'	392.59074	161.13800
15	A4	19.183'	43.616'	368.65887	088.95126
16	A5	19.178'	43.631'	338.68694	011.58892
17	LM2	19.214'	43.661'	557.64825	1492858.10704
18	CP1	19.214'	43.674'	557.94666	791.17705
19	A6 - Concrete piping	19.222'	43.690'	606.81928	~~1492~~ 709.01811
20	M2 > Meth = 1, CO = Ø, O_2 = 20.1	19.286'	43.584'	992.42989	1493256.47924
21	WO3	19.240'	43.597'	713.70837	214.05183
22	M3 > meth = 1 CO = 5 O_2 = 21.1	19.225'	43.604'	623.03600	151.86600
23	A7	19.191'	43.634'	417.57659	1492996.49445
24	A8	19.216'	43.675'	570.09591	786.08267
25	HC2	19.231'	43.599'	707.80551	1493177.98581
26	M4 > Meth = Ø, CO = 1, O_2 = 20.8	.228'	.672'	642.78476	1492801.85249
27	WO4 & depth of cover <1'	.228'	.667'	642.69294	822.44628
28	LM3 " " " "	.221'	.658'	600.62141	873.74159
29	M5 ⇒ meth = Ø, CO = Ø, O_2 = 20.6	.240'	.674'	715.58842	791.88007
30	A9	.220'	.651'	593.79766	909.75375
31	WO5 - depth of cover <1'	.222'	.648'	605.85512	925.25315
32	A10	.225'	.647'	624.02162	930.48264
33	A11	"	"		
34	LM4	"	"		
35	Depth to Cover = M5			Depth = <1', surface	

Date: 3 Jan 02

CLC Paseo de Onate Site Recon

Pt. #	Point Location/Description	N(GPS)	W (GPS)	Northing	Easting
✓1	A-12	32° 19.224'	106° 43.665'	480618.37150	1492837.78350
2	Depth to cover = A1	>3' loose sand			
3	Depth to cover = M2	≤1'			
✓4	WP-6 / HC-3	32° 19.235'	106° 43.588'	480683.36108	1493234.51079
5					
6					
7					
8					
9	Notes: Household waste typically in central + NE areas				
10	of LF. Construction waste typically located at				
11	edges of LF + SW area of LF: Cover ≈ 1-3 feet				
12	except along Foothills → >3'				
13					
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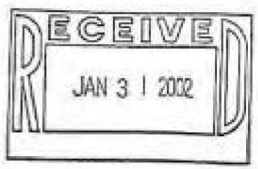
Appendix B: Analytical Laboratory Results

Hall Environmental Analysis Laboratory



COVER LETTER

January 28, 2002

Larry Kemp
Souder, Miller & Associates
401 17th St. Suite 4
Las Cruces, NM 88005
TEL: (505) 647-0799
FAX (505) 471-6675

RE: CLC Paseo de Onate

Order No.: 0201021

Dear Larry Kemp:

Hall Environmental Analysis Laboratory received 14 samples on 1/8/02 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

4901 Hawkins NE, Suite A, Albuquerque, NM 87109 * 505.345-3975, Fax 505.345-4107

Hall Environmental Analysis Laboratory Date: *28-Jan-02*

CLIENT:	Souder, Miller & Associates	Client Sample ID:	WO-1
Lab Order:	0201021	Collection Date:	1/4/02 10:17:00 AM
Project:	CLC Paseo de Onate	Matrix:	SOIL
Lab ID:	0201021-02		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
8015B DIESEL SOIL		SW8015				Analyst: JLS
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 7:52:33 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 7:52:33 PM
Surr: DNOP	95.5	60-124		%REC	1	1/11/02 7:52:33 PM
GRO BY 8015B-DRY WEIGHT BASIS		SW8015				Analyst: NB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 8:47:56 PM
Surr: BFB	99.8	74-118		%REC	1	1/9/02 8:47:56 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-03

Client Sample ID: WO-2
Collection Date: 1/4/02 10:20:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 8:20:50 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 8:20:50 PM
Surr: DNOP	91.7	60-124		%REC	1	1/11/02 8:20:50 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 9:19:30 PM
Surr: BFB	94.9	74-118		%REC	1	1/9/02 9:19:30 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-04

Client Sample ID: WO-3
Collection Date: 1/4/02 10:40:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 8:49:06 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 8:49:06 PM
Surr: DNOP	92.8	60-124		%REC	1	1/11/02 8:49:06 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 9:50:56 PM
Surr: BFB	93.3	74-118		%REC	1	1/9/02 9:50:56 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
*- Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-05

Client Sample ID: WO-6
Collection Date: 1/4/02 10:50:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 9:17:17 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 9:17:17 PM
Surr: DNOP	86.9	60-124		%REC	1	1/11/02 9:17:17 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 10:22:22 PM
Surr: BFB	86.2	74-118		%REC	1	1/9/02 10:22:22 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-06

Client Sample ID: HC-1
Collection Date: 1/4/02 11:20:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8260B				Analyst: BL
VOLATILES BY 8260B - DRY WEIGHT BASIS						
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.10		mg/Kg	1	1/8/02
Naphthalene	ND	0.20		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.050		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.15		mg/Kg	1	1/8/02
Methylene chloride						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-06

Client Sample ID: HC-1
Collection Date: 1/4/02 11:20:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	104	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	105	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	96.1	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	107	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-07

Client Sample ID: HC-2
Collection Date: 1/4/02 10:55:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B - DRY WEIGHT BASIS	SW8260B					Analyst: BL
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/8/02
Naphthalene	ND	0.10		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/8/02
Methylene chloride	ND	0.15		mg/Kg	1	1/8/02

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-07

Client Sample ID: HC-2
Collection Date: 1/4/02 10:55:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	102	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	103	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	92.4	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	103	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-08

Client Sample ID: HC-3
Collection Date: 1/4/02 10:50:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B - DRY WEIGHT BASIS	SW8260B					Analyst: BL
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.10		mg/Kg	1	1/8/02
Naphthalene	ND	0.20		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.050		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.15		mg/Kg	1	1/8/02
Methylene chloride						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-08

Client Sample ID: HC-3
Collection Date: 1/4/02 10:50:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	103	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	103	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	92.9	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	104	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 04-Feb-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-09

Client Sample ID: CP-1
Collection Date: 1/3/2002 4:15:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081				Analyst: IC
ORGANOCHLORINE PESTICIDES						
4,4'-DDD	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
4,4'-DDE	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
4,4'-DDT	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Aldrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
alpha-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
beta-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Chlordane	ND	0.10		mg/Kg	1	1/28/2002 2:52:03 AM
delta-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Dieldrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan I	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan II	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan sulfate	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endrin aldehyde	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
gamma-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Heptachlor	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Heptachlor epoxide	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Methoxychlor	ND	0.10		mg/Kg	1	1/28/2002 2:52:03 AM
Toxaphene	101	75.5-103		%REC	1	1/28/2002 2:52:03 AM
Surr: Decachlorobiphenyl	79.2	62.2-91.6		%REC	1	1/28/2002 2:52:03 AM
Surr: Tetrachloro-m-xylene						
		SW8082A				Analyst: IC
PCBS BY 8082	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1016	ND	0.050		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1221	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1232	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1242	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1248	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1254	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1260	96.0	70-130		%REC	1	1/19/2002 9:21:37 AM
Surr: Decachlorobiphenyl	71.3	70-130		%REC	1	1/19/2002 9:21:37 AM
Surr: Tetrachloro-m-xylene						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT:	Souder, Miller & Associates	Client Sample ID:	WO-4
Lab Order:	0201021	Collection Date:	1/3/02 3:45:00 PM
Project:	CLC Paseo de Onate	Matrix:	SOIL
Lab ID:	0201021-13		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 9:45:26 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 9:45:26 PM
Surr: DNOP	95.9	60-124		%REC	1	1/11/02 9:45:26 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 10:53:43 PM
Surr: BFB	93.5	74-118		%REC	1	1/9/02 10:53:43 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT:	Souder, Miller & Associates	Client Sample ID:	WO-5
Lab Order:	0201021	Collection Date:	1/3/02 4:35:00 PM
Project:	CLC Paseo de Onate	Matrix:	SOIL
Lab ID:	0201021-14		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 10:13:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 10:13:34 PM
Surr: DNOP	96.8	60-124		%REC	1	1/11/02 10:13:34 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 11:25:02 PM
Surr: BFB	89.0	74-118		%REC	1	1/9/02 11:25:02 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

ANALYTICAL, INC.
overnment Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1250 ■ Fax: (208)783-0891

REPORT OF ANALYTICAL RESULTS

NT : Hall Environmental
ECT: PASEO DE ONATE

Sample Receipt: 1/09/02
Report Date: 1/18/02

Page 1 of 2
SVL JOB: 100524

ID	CLIENT SAMPLE ID		Ag 6010B	As 6010B	Ba 6010B	Cd 6010B	Cr 6010B
7972	LM-1	1/04/02	<0.5mg/kg	<1.0mg/kg	130mg/kg	<0.2mg/kg	5.1mg/kg
7973	LM-2	1/03/02	<0.5mg/kg	1.2mg/kg	243mg/kg	0.3mg/kg	5.3mg/kg
7974	LM-3	1/03/02	<0.5mg/kg	<1.0mg/kg	289mg/kg	0.3mg/kg	9.3mg/kg
7975	LM-4	1/03/02	0.5mg/kg	<1.0mg/kg	220mg/kg	0.3mg/kg	5.8mg/kg

Soil Samples: As Received Basis

viewed By: Blake Johnson Date: 1/18/02

SVL ANALYTICAL, INC.
One Government Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1250 ■ Fax: (208)783-0891

REPORT OF ANALYTICAL RESULTS

CLIENT : Hall Environmental
PROJECT: PASEO DE ONATE

Sample Receipt: 1/09/02
Report Date: 1/18/02

Page 2 of 2
SVL JOB: 100524

SVL ID	CLIENT SAMPLE ID		Pb 6010B	Se 6010B	Hg 7471	% Sol. 999
S287972	LM-1	1/04/02	12.9mg/kg	<1.0mg/kg	<0.033mg/kg	98.5%
S287973	LM-2	1/03/02	21.6mg/kg	<1.0mg/kg	<0.033mg/kg	98.3%
S287974	LM-3	1/03/02	163mg/kg	<1.0mg/kg	0.105mg/kg	98.4%
S287975	LM-4	1/03/02	28.6mg/kg	<1.0mg/kg	0.045mg/kg	98.3%

Soil Samples: As Received Basis

Reviewed By: Blake Johnson Date: 1/18/02

ALYTICAL, INC.

Quality Control Report

Part I Prep Blank and Laboratory Control Sample

t :Hall Environmental

SVL JOB No: 100524

lyte	Method	Matrix	Units	Prep Blank	True	LCS	Found	LCS %R	Analysis Date
er	6010B	SOIL	mg/kg	<0.5	208		259	124.5	1/16/02
nic	6010B	SOIL	mg/kg	<1.0	170		171	100.6	1/16/02
um	6010B	SOIL	mg/kg	<0.2	151		154	102.0	1/16/02
ium	6010B	SOIL	mg/kg	<0.2	184		181	98.4	1/16/02
enium	6010B	SOIL	mg/kg	<0.6	111		110	99.1	1/16/02
l	6010B	SOIL	mg/kg	<0.5	106		103	97.2	1/16/02
enium	6010B	SOIL	mg/kg	<1.0	85.7		84.9	99.1	1/16/02
cury	7471	SOIL	mg/kg	<0.033	29.6		22.7	76.7	1/18/02

ND:
- Laboratory Control Sample

LCS %R = LCS Percent Recovery

N/A = Not Applicable

SVL ANALYTICAL, INC.

Quality Control Report

Part II Duplicate and Spike Analysis

client :Hall Environmental

SVL JOB No: 100524

Test	Method	Matrix	QC SAMPLE ID Units	QC SAMPLE ID Result	Duplicate or MSD Found		Duplicate or MSD RPD%	Matrix Spike Result	Matrix Spike SPK ADD	%R	Analysis Date
Ag	6010B	SOIL	1 mg/kg	<0.5	102	M	1.9	104	100	104.0	1/16/02
As	6010B	SOIL	1 mg/kg	<1.0	116	M	2.6	119	100	119.0	1/16/02
Ba	6010B	SOIL	1 mg/kg	130	232	M	3.0	239	100	109.0	1/16/02
Cd	6010B	SOIL	1 mg/kg	<0.2	115	M	1.9	113	100	113.0	1/16/02
Cr	6010B	SOIL	1 mg/kg	5.1	120	M	0.8	121	100	115.9	1/16/02
Pb	6010B	SOIL	1 mg/kg	12.9	126	M	2.4	129	100	116.1	1/16/02
Se	6010B	SOIL	1 mg/kg	<1.0	111	M	2.7	114	100	114.0	1/16/02
Hg	7471	SOIL	1 mg/kg	<0.033	<0.033		UDL	0.210	0.167	125.7	1/18/02
% Sol.	999	SOIL	1 %	98.5	98.5		0.0	N/A	N/A	N/A	1/17/02

LEGEND:

RPD% = (|SAM - DUP|/((SAM + DUP)/2) * 100) UDL = Both SAM & DUP not detected. *Result or *Found: Interference required dilution.

RPD% = (|SPK - MSD|/((SPK + MSD)/2) * 100) M in Duplicate/MSD column indicates MSD.

SPIKE ADD column, A = Post Digest Spike; %R = Percent Recovery N/A = Not Analyzed; R > 40 = Result more than 4X the Spike Added

QC Sample 1: SVL SAM NO.: 287972 Client Sample ID: LM-1

Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1401 Batch ID: 1401 Test Code: SW8015 Units: mg/Kg Analysis Date 1/10/2002 10:41:09 AM Prep Date 1/8/2002
Client ID: Run ID: FID(17A)_020110B SeqNo: 67637

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	5.0									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	102.7	0	100	0	103	60	124	0			

Sample ID MB-1399 Batch ID: 1399 Test Code: SW8015 Units: mg/Kg Analysis Date 1/10/2002 12:58:42 AM Prep Date 1/8/2002
Client ID: Run ID: PIDFID_020109A SeqNo: 67513

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	963.4	0	1000	0	96.3	74	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1405 Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date 1/28/2002 1:47:20 AM Prep Date 1/9/2002
Client ID: Run ID: ECD(17A)_020127A SeqNo: 70741

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.0020									
4,4'-DDE	ND	0.0020									
4,4'-DDT	ND	0.0020									
Aldrin	ND	0.0020									
alpha-BHC	ND	0.0020									
beta-BHC	ND	0.10									
Chlordane	ND	0.0020									
delta-BHC	ND	0.0020									
Dieldrin	ND	0.0020									
Endosulfan I	ND	0.0020									
Endosulfan II	ND	0.0020									
Endosulfan sulfate	ND	0.0020									
Endrin	ND	0.0020									
Endrin aldehyde	ND	0.0020									
gamma-BHC	ND	0.0020									
Heptachlor	ND	0.0020									
Heptachlor epoxide	ND	0.0020									
Methoxychlor	ND	0.10									
Toxaphene	96.83	0	100	0	96.8	70	130	0			
Surr: Decachlorobiphenyl	82.37	0	100	0	82.4	70	130	0			
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1406 Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 7:04:28 AM Prep Date 1/9/2002
Client ID: Run ID: ECD(17A)_020119A SeqNo: 69219

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.010									
Aroclor 1221	ND	0.050									
Aroclor 1232	ND	0.010									
Aroclor 1242	ND	0.010									
Aroclor 1248	ND	0.010									
Aroclor 1254	ND	0.010									
Aroclor 1260	94.53	0	100	0	94.5	70	130	0			
Surr: Decachlorobiphenyl	76.29	0	100	0	76.3	70	130	0			
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

J

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID rb Batch ID: R3147 Test Code: SW8260B Units: µg/L Analysis Date 1/9/2002 Prep Date
Client ID: Run ID: VAL_020108A SeqNo: 67251

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Methyl tert-butyl ether (MTBE)	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,2-Dichloroethane (EDC)	ND	1.0									
1,2-Dibromoethane (EDB)	ND	2.0									
Naphthalene	ND	4.0									
1-Methylnaphthalene	ND	4.0									
2-Methylnaphthalene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon Tetrachloride	ND	1.0									
Chlorobenzene	ND	2.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
cis-1,2-DCE	ND	1.0									
cis-1,3-Dichloropropene	ND	2.0									
1,2-Dibromo-3-chloropropane	ND	1.0									
Dibromochloromethane	ND	2.0									
Dibromomethane											

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

J

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

QC SUMMARY REPORT
Method Blank

1,2-Dichlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
Dichlorodifluoromethane	ND	1.0
1,1-Dichloroethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
1,3-Dichloropropane	ND	1.0
2,2-Dichloropropane	ND	1.0
1,1-Dichloropropene	ND	1.0
Hexachlorobutadiene	ND	1.0
Isopropylbenzene	ND	1.0
4-Isopropyltoluene	ND	1.0
Methylene Chloride	0.534	3.0
n-Butylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
Styrene	ND	1.0
tert-Butylbenzene	ND	1.0
Tetrachloroethene (PCE)	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
trans-1,2-DCE	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Trichloroethene (TCE)	ND	1.0
Trichlorofluoromethane	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1,2-Trichloroethane	ND	2.0
Vinyl chloride	ND	2.0
1,2,3-Trichloropropane	ND	1.0
Xylenes, Total		

J

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

QC SUMMARY REPORT
Method Blank

Surr: 1,2-Dichloroethane-d4	10.97	0	10	0	110	74.6	123	0
Surr: 4-Bromofluorobenzene	10.66	0	10	0	107	85.6	117	0
Surr: Dibromofluoromethane	10.49	0	10	0	105	78.6	116	0
Surr: Toluene-d8	10.72	0	10	0	107	84.2	115	0

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: 0201021-02a Batch ID: 1399 Test Code: SW8015 Units: mg/Kg Analysis Date: 1/9/02 11:56:16 PM Prep Date: 1/8/02
Client ID: WO-1 Run ID: PIDFID_020109A SeqNo: 67611

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0	0	0	0	0	0	0	0	20	
Surr: BFB	971.7	0	1000	0	97.2	74	118	929.3	2.80	0	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

1

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: 0201021-09ADUP Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date: 1/28/02 3:24:28 AM Prep Date: 1/9/02
Client ID: GP-1 Run ID: ECD(17A)_020127A SeqNo: 70744

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.0020	0	0	0	0	0	0	0	0	
4,4'-DDE	ND	0.0020	0	0	0	0	0	0	0	0	
4,4'-DDT	ND	0.0020	0	0	0	0	0	0	0	0	
Aldrin	ND	0.0020	0	0	0	0	0	0	0	0	
alpha-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
beta-BHC	ND	0.10	0	0	0	0	0	0	0	0	
Chlordane	ND	0.0020	0	0	0	0	0	0	0	0	
delta-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
Dieldrin	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan I	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan II	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan sulfate	ND	0.0020	0	0	0	0	0	0	0	0	
Endrin	ND	0.0020	0	0	0	0	0	0	0	0	
Endrin aldehyde	ND	0.0020	0	0	0	0	0	0	0	0	
gamma-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
Heptachlor	ND	0.0020	0	0	0	0	0	0	0	0	
Heptachlor epoxide	ND	0.0020	0	0	0	0	0	0	0	0	
Methoxychlor	ND	0.10	0	0	0	0	0	0	0	0	
Toxaphene	107.2	0	100	0	107	75.5	103	101.2	5.78	0	S
Surr: Decachlorobiphenyl	90.1	0	100	0	90.1	52.2	91.6	79.21	12.9	0	
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

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Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09ADUP Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 10:06:27 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69223

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1221	ND	0.050	0	0	0	0	0	0	0	0	
Aroclor 1232	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1242	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1248	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1254	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1260	101.6	0	100	0	102	70	130	99.02	5.64	0	
Surr: Decachlorobiphenyl	79.81	0	100	0	79.8	70	130	71.32	11.2	0	
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

1

Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09AMS Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date 1/28/2002 8:38:19 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020127A SeqNo: 70745

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.0307	0.0020	0.025	0	123	50	130	0			
Aldrin	0.02685	0.0020	0.025	0	107	50	130	0			
Dieldrin	0.0283	0.0020	0.025	0	113	50	130	0			
Endrin	0.0253	0.0020	0.025	0	101	50	130	0			
gamma-BHC	0.0277	0.0020	0.025	0	111	50	130	0			
Heptachlor	0.0272	0.0020	0.025	0	109	50	130	0			
Surr: Decachlorobiphenyl	102.8	0	100	0	103	50	130	0			
Surr: Tetrachloro-m-xylene	89.19	0	100	0	89.2	50	130	0			

Sample ID 0201021-09AMS Batch ID: 1406 Test Code: SW8080A Units: µg/L Analysis Date 1/19/2002 10:51:12 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69224

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.116	0.010	0.125	0	92.8	0	0	0			S
Aroclor 1260	0.117	0.010	0.125	0	93.6	85	115	0			
Surr: Decachlorobiphenyl	98.2	0	100	0	98.2	70	130	0			
Surr: Tetrachloro-m-xylene	74.26	0	100	0	74.3	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

1

Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09AMS Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 10:51:12 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69224

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.116	0.010	0.125	0	92.8	65	115	0			
Aroclor 1260	0.117	0.010	0.125	0	93.6	65	115	0			
Surr: Decachlorobiphenyl	98.2	0	100	0	98.2	70	130	0			
Surr: Tetrachloro-m-xylene	74.25	0	100	0	74.3	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201001-01a ms Batch ID: R3147 Test Code: SW8260B Units: mg/Kg Analysis Date 1/8/2002 Prep Date
Client ID: Run ID: VAL_020108A SeqNo: 67261

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.6351	0.050	0.5404	0	118	74	119	0			
Toluene	0.5784	0.050	0.5404	0	107	73	123	0			
Chlorobenzene	0.5846	0.050	0.5404	0	108	72	123	0			
1,1-Dichloroethene	0.4931	0.050	0.5404	0	91.3	71	123	0			
Trichloroethene (TCE)	0.6224	0.050	0.5404	0	115	69	130	0			
Surr: 1,2-Dichloroethane-d4	0.2675	0	0.2702	0	99.0	65	114	0			
Surr: 4-Bromofluorobenzene	0.28	0	0.2702	0	104	74	122	0			
Surr: Dibromofluoromethane	0.2444	0	0.2702	0	90.4	65	113	0			
Surr: Toluene-d8	0.2748	0	0.2702	0	102	60	123	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: LCS-1401	Batch ID: 1401	Test Code: SW8015	Units: mg/Kg	Analysis Date: 1/10/02 11:12:01 AM	Prep Date: 1/8/02
Client ID:		Run ID: FID(17A)_020110B		SeqNo: 67638	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	5.0	50	0	84.0	67.4	117	0			

Sample ID: LCS-1405	Batch ID: 1405	Test Code: SW8081	Units: mg/Kg	Analysis Date: 1/28/02 2:19:40 AM	Prep Date: 1/9/02
Client ID:		Run ID: ECD(17A)_020127A		SeqNo: 70742	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.03178	0.0020	0.025	0	127	70	130	0			
Aldrin	0.02615	0.0020	0.025	0	105	70	130	0			
Dieldrin	0.0285	0.0020	0.025	0	114	70	130	0			
Endrin	0.02358	0.0020	0.025	0	94.3	70	130	0			
gamma-BHC	0.0259	0.0020	0.025	0	104	70	130	0			
Heptachlor	0.02865	0.0020	0.025	0	115	70	130	0			

Sample ID: LCS-1406	Batch ID: 1406	Test Code: SW8080A	Units: µg/L	Analysis Date: 1/19/02 7:50:34 AM	Prep Date: 1/9/02
Client ID:		Run ID: ECD(17A)_020119A		SeqNo: 69220	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.1275	0.010	0.125	0	102	0	0	0			S
Aroclor 1260	0.112	0.010	0.125	0	89.6	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Souder, Miller & Assoc
Address: 701 17th St. Ste 4, Las Cruces NM 88005
Phone #: 505-647-0799
Fax #: 505-647-0680

Project Name: CLC Paseo de Oñate
Project #: 1313458
Project Manager: LNK
Sampler: LNK
Samples Cold?: ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: HNO_3	Preservative: HCl	HEAL No.
1/4/02	1035	Soil	LM-1	1/4oz			0201021-1
	1017		WO-1				-2
	1020		WO-2				-3
	1040		WO-3				-4
	1050		WO-6				-5
	1120		HC-1	Mpint			-6
	1055		HC-2	Mpint			-7
↓	1050	↓	HC-3	Mpint			-8

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)			Air Bubbles or Headspace (Y or N)
								X								
		X														
		X														
		X														
		X														
												X				
												X				
												X				

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	Date:	Time:
1/8/02	0935	[signature]	[signature]	1/8/02	0935

Remarks: Samples collected from former [illegible] area to current

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Souder, Miller & Assoc.
Address: 401 17th Street, Ste 4, Las Cruces NM 88005
Phone #: 505-647-0799
Fax #: 505-647-0680

Project Name: CLC Paseo de Onate
Project #: 1313458
Project Manager: LNK
Sampler: LNK
Samples Cold?: [X] Yes [ ] No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: H_2Cl_2	Preservative: HCl		HEAL No.
11/3/02	1615	Soil	CP-1	1/4oz				0211021-9
	1620		LM-2					-10
	1600		LM-3					-11
	1635		LM-4					-12
	1545		WO-4					-13
↓	1635	↓	WO-5	↓				-14

ANALYSIS REQUEST

	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD. (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)			Air Bubbles or Headspace (Y or N)
11/3/02									X	X		X					
									X	X							
									X	X							
			X														
			X														

Date: 11/3/02 Time: 0930 Relinquished By: (Signature) Lauren N Kemp
Received By: (Signature) 11/3/02 0935

Date: Time: Relinquished By: (Signature)
Received By: (Signature)

Remarks: Samples collected from former landfill, closed prior to current regulations

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos

JobNumber: 2002-0093

Client: SOUDER MILLER & ASSOCIATES

401 17TH ST STE 4

LAS CRUCES, NM 88005-0000

Office Phone: (505) 647-0799

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RECEIVED FEB 11 2002

PLM analysis for asbestos in bulk smp

 # Samples: 12 PLM **Rec:** 1/8/2002 **Method:** EPA 600/R-93/116

Client Job: Paseo de Onate **PO Number:** 1319458

Routing Number:

Date Analyzed: 1/9/2002

Method and Analysis Information:

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA, NESHAP and OSHA regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber analysis and identification is the EPA Method 600/R-93/116. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, and the reported percent asbestos can only be considered the minimum that may be present. 30% is the generally acknowledged maximum amount of asbestos that manufacturers placed in floor tiles. A gravimetric TEM method should be used to obtain an accurate % of asbestos in floor tiles.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst is a degreed scientist, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Job Analysis Notes:

Report amended 2-4-02 to correct client sample number A6 (Lab number 2002-0093-12) to A7.

Job Number: 2002-0093 Paseo de Onate

PLM Analysis Summary:

Sample # A-1			2002-0093- 1	Acoustic Tile		Positive Layer? No
Layer # 1	Gray	paint	Fr= 1	*no asbestos detected*		
Layer # 2	Tan	acoustical tile	Fr= 4	*no asbestos detected*		
Sample # A-6			2002-0093- 2	Cementitious		Positive Layer? Yes
Layer # 1	Gray	cem/asb board	Fr= 2	*10-20% chrysotile asbestos*	*2-5% crocidolite asbestos*	
Sample # A-8			2002-0093- 3	Insulation		Positive Layer? No
Layer # 1	Black	coating	Fr= 1	*no asbestos detected*		
Layer # 2	Orange	insulation	Fr= 4	*no asbestos detected*		
Sample # A-9			2002-0093- 4	Roofing		Positive Layer? No
Layer # 1	Black	roofing roll/shingle	Fr= 1	*no asbestos detected*		
Layer # 2	Black	roofing roll/shingle	Fr= 1	*no asbestos detected*		
Sample # A-10			2002-0093- 5	Roofing		Positive Layer? No
Layer # 1	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply	Fr= 1	*no asbestos detected*		
Layer # 3	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 6	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 7	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 8	Black	roof ply	Fr= 4	*no asbestos detected*		
Sample # A-11			2002-0093- 6	Roofing		Positive Layer? No
Layer # 1	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Sample # A-12			2002-0093- 7	Roofing		Positive Layer? Yes
Layer # 1	Black	roofing roll/shingle	Fr= 4	*40-50% chrysotile asbestos*		
Layer # 2	Black	roofing roll/shingle	Fr= 4	*40-50% chrysotile asbestos*		
Sample # A-2			2002-0093- 8	Flooring		Positive Layer? No
Layer # 1	Yellow	surface	Fr= 1	*no asbestos detected*		
Layer # 2	White	backing	Fr= 4	*40-50% chrysotile asbestos*		
Sample # A-3			2002-0093- 9	Insulation		Positive Layer? No
Layer # 1	White	insulation	Fr= 4	*no asbestos detected*		
Sample # A-4			2002-0093- 10	Insulation		Positive Layer? No
Layer # 1	White	insulation wrap	Fr= 2	*no asbestos detected*		
Layer # 2	White	insulation	Fr= 4	*no asbestos detected*		
Sample # A-5			2002-0093- 11	Roofing		Positive Layer? No
Layer # 1	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 6	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Sample # A-7			2002-0093- 12	Roofing		Positive Layer? No
Layer # 1	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Fiber Colors: B=black; BL=blue; BR=brown; CL=clear; G=Green; GY=gray; OR=orange; OW=off-white; PN=pink; PU=purple; R=red; TN=tan; W=white; Y=yellow
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be + or -; Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

PLM Analysis Details — Job Number: 2002-0093 Paseo de Onate

Sample A-1 — Lab Number 2002-0093- 1 — Sampled: 1/3/2002 16:40

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Acoustic Tile — Fibrous Solid

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 5

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability
1	paint	1	Gray	1
2	acoustical tile	99	Tan	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note: Procedure: tweased apart using forceps.

Sample A-6 — Lab Number 2002-0093- 2 — Sampled: 1/3/2002 16:10

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Cementitious — Fibrous Solid

Homogeneous Yes — # Layers 1 — Pos Layer? Yes — # Sub-Samples 3

Non-Fibrous Components (in approx. decreasing order): powder, ,

Layers

#	Layer Type	%	Color	Friability
1	cem/asb board	100	Gray	2
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	10-20%	2-5%	-	-	-	-
Average %	10-20%	2-5%	-	-	-	-
Fiber Identification:	chrysotile asbes	crocidolite asbe				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2	crocidolite asbestos	BL	C	N	Y	L	-	P
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.549
1.700	pb/r	sb/o	1.70	1.71

Sample Analytical Note: Procedure: grinding using mortar & pestle

PLM Analysis Details — Job Number: 2002-0093 Paseo de Onate

Sample A-8 — Lab Number 2002-0093- 3 — Sampled: 1/3/2002 16:10

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Insulation — Fibrous Mat

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 6

Non-Fibrous Components (in approx. decreasing order): binder, bitumen,

Layers

#	Layer Type	%	Color	Friability
1	coating	1	Black	1
2	insulation	99	Orange	4

Total % 100

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	glass fiber	CL	D	Y				
2								
3								
4								
5								
6								

Refractive Index Determinations	Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample A-9 — Lab Number 2002-0093- 4 — Sampled: 1/3/2002 16:30

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Roofing — Sticky

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	50	Black	1
2	roofing roll/shingle	50	Black	1

Total % 100

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	20-30%	-	-	-	-	-
	20-30%	-	-	-	-	-
Average %	20-30%	-	-	-	-	-
Fiber Identification:	synthetic fiber (					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	synthetic fiber (extruded)	W	E	N	N	H	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations	Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-10 **Lab Number** 2002-0093- 5 **Sampled:** 1/3/2002 16:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 8 **Pos Layer?** No **# Sub-Samples** 24

Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability
1	roof ply	12	Black	4
2	roof ply	12	Black	1
3	roof ply	12	Black	4
4	roof ply	12	Black	4
5	roof ply	13	Black	4
6	roof ply	13	Black	4
7	roof ply	13	Black	4
8	roof ply	13	Black	4
	Total %	100	**Average %**	

Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-

Fiber Identification: cellulose fiber

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-11 **Lab Number** 2002-0093- 6 **Sampled:** 1/3/2002 16:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roof ply/bitumen	34	Black	4
2	roof ply/bitumen	33	Black	4
3	roof ply/bitumen	33	Black	4
	Total %	100	**Average %**	

Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-

Fiber Identification: cellulose fiber synthetic fiber (

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2	synthetic fiber (extruded)	W	E	N	N	H	+	P
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-12 **Lab Number** 2002-0093- 7 **Sampled:** 1/3/2002 16:00

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	70	Black	4
2	roofing roll/shingle	30	Black	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	40-50%	-	-	-	-	-
	40-50%	-	-	-	-	-
Average %	40-50%	-	-	-	-	-
Fiber Identification:	chrysotile asbes					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.550

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-2 **Lab Number** 2002-0093- 8 **Sampled:** 1/4/2002 11:05

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): plastic, binder,

Layers

#	Layer Type	%	Color	Friability
1	surface	30	Yellow	1
2	backing	70	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	40-50%	-	-	-	-	-
Average %	30-40%	-	-	-	-	-
Fiber Identification:	chrysotile asbes					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.550

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-3 **Lab Number** 2002-0093- 9 **Sampled:** 1/4/2002 11:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability
1	insulation	100	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	glass fiber	CL	D	Y				
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps.

PLM Analysis Details | Job Number: 2002-0093 | Paseo de Onate

Sample A-4 | **Lab Number** 2002-0093- 10 | **Sampled:** 1/4/2002 11:35

Analyzed By DMS 1/9/2002 | **An?** OK | **Apparent Smp Type** Insulation | Fibrous Mat

Homogeneous No | **# Layers** 2 | **Pos Layer?** No | **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): plastic, binder,

Layers

#	Layer Type	%	Color	Friability
1	insulation wrap	15	White	2
2	insulation	85	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	40-50%	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	80-90%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1 glass fiber	CL	D	Y									
2												
3												
4												
5												
6												

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-5 | **Lab Number** 2002-0093- 11 | **Sampled:** 1/4/2002 11:45

Analyzed By DMS 1/9/2002 | **An?** OK | **Apparent Smp Type** Roofing | Sticky

Homogeneous No | **# Layers** 6 | **Pos Layer?** No | **# Sub-Samples** 18

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	20	Black	4
2	roofing roll/shingle	20	Black	4
3	roof ply/bitumen	15	Black	4
4	roof ply/bitumen	5	Black	4
5	roofing roll/shingle	20	Black	4
6	roof ply/bitumen	20	Black	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	30-40%	-	-	-	-	-
	30-40%	-	-	-	-	-
	50-60%	-	-	-	-	-
	50-60%	-	-	-	-	-
	30-40%	-	-	-	-	-
	50-60%	-	-	-	-	-
Average %	40-50%	-	-	-	-	-
Fiber Identification:	cellulose fiber					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1 cellulose fiber	W	F	N	N	H	+	U					
2												
3												
4												
5												
6												

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Sample pulverized - exact number of layers and sequence is unknown.

PLM Analysis Details **Job Number:** 2002-0093 Paseo de Onate

Sample A-7 **Lab Number** 2002-0093- 12 **Sampled:** 1/4/2002 11:45

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 15

Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber					
					Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
2	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
3	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
4	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
5	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
	Total %	100		**Average %**	30-40%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations				
									Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Sample pulverized - exact number of layers and sequence unknown.

David M. Schaller

Analyst: DAVID M. SCHALLER

Printed: 04-Feb-02

Original Print Date: 09-Jan-02

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

5025 S. 33rd Street Phoenix, Arizona 85040-2816 Phone: 602-276-6139 1-800-743-2687 FAX: 602-276-4558

ATTACHMENT 6

Terracon 2006 Limited Site Investigation Report

LIMITED SITE INVESTIGATION

CITY OF LAS CRUCES
FORMER PASEO DE ONATE LANDFILL
TRACT 9cr1 AND THE NORTHWEST PORTION OF TRACT 9ac2
LOHMAN AVENUE AND PASEO DE ONATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Terracon Project No. 68067007
October 3, 2006

Prepared for:

CITY OF LAS CRUCES
Las Cruces, New Mexico

Prepared by:

TERRACON
Las Cruces, New Mexico

Terracon

October 3, 2006

City of Las Cruces
575 South Alameda Boulevard
Las Cruces, New Mexico 88005

Attn: Mr. Tory Aguirre
Phone: (505) 528-3113
Fax: (505) 528-3158

Re: Limited Site Investigation
Former Paseo de Oñate Landfill
Tract 9cr1 and the Northwest Portion of Tract 9ac2
Lohman Avenue and Paseo de Oñate
Las Cruces, Dona Ana County, New Mexico
Terracon Project No. 680657007

Dear Mr. Aguirre:

Terracon Consultants, Inc. (Terracon) is pleased to submit three copies of the Limited Site Investigation (LSI) report for the above-referenced site. This investigation was performed in accordance with Terracon's Proposal Number P06806-068E and Amendment No. 1, dated March 30, 2006 and July 15, 2006, respectively as authorized by Mr. Tony Aguirre with the City of Las Cruces on April 21, 2006 and August 7, 2006.

We appreciate the opportunity to perform these services for City of Las Cruces. Please contact either of the undersigned at (505) 527-1700 if you have questions regarding the information provided in the report.

Sincerely,
TERRACON

Prepared by:

Carina G. Munoz Ortega, E.I.T.
Staff Engineer

Reviewed by:

Mary E. Wells, P.E.
Associate Principal

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1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a Limited Site Investigation (LSI) of the property located at the southeast (northwest portion of Tract 9ar2)and southwest (Tract 9cr1) corners of Lohman Avenue and Paseo de Oñate in Las Cruces, Doña Ana County, New Mexico. The site is undeveloped vacant land and has an approximate total area of 11 acres. During the site reconnaissance, construction debris was observed throughout the property. According to information provided in the previous assessment conducted for the subject site by Souder, Miller & Associates (SMA), which is summarized in their report entitle "Phase II Report for Parcel of Land Located at the Southwest and Southeast Corner of Lohman Avenue and Paseo de Oñate, Las Cruces, New Mexico" dated February 22, 2002, the property was previously used as a landfill that "discontinued receiving waste prior to implementation of the current New Mexico Environment Department (NMED) Solid Waste Bureau (SWB) regulations."

1.1 Site Description

Site Name	Paseo de Oñate Old Landfill
Site Location/Address	Sourthwest corner (Tract 9cr1) and southeast corner (northwest portion of Tract 9ar2) of Lohman Avenue and Paseo de Onate Las Cruces, Doña Ana County, New Mexico
General Site Description	Undeveloped Land (11 acres total)

Figure 1 presents the general site boundaries and topography of the site on portions of the 1990 USGS topographic quadrangle map of Tortugas Mountain, New Mexico. Figure 2 presents the general site boundaries on the USGS 2003 aerial photograph (please see Appendix A).

1.2 Scope of Work

At your request, Terracon's LSI was to provide the services described below:

For the southwest corner (Tract 9cr1):

- Reviewing reports summarizing investigations that have been previously conducted for the BLM.
- Advancing twenty shovel test holes to maximum depths of 5 feet to assess the thickness of the debris, and to assess the potential for contamination.
- Collecting soil samples from each of the borings with a decontaminated hand trowel and placing in laboratory prepared glass jars.
- Sealing the glass jars with Teflon-lined lids, labeling with a unique identification number, and storing in a chilled container until delivery to Environmental Science Corporation Laboratory.
- Analyzing five soil samples for TPH by EPA Test Method 418.1.
- Analyzing two samples for Pesticides/PCBs by Test Method 8081/8082.
- Analyzing two samples for SVOCs by EPA Test Method 8270 (short list).
- Analyzing two samples for TCLP Metals by EPA Test Method 8311 and 6010.
- Analyzing ten samples of suspect ACM for asbestos content by Polarized Light Microscopy (PLM).

For the southeast corner (northwest portion of Tract 9ar2):

- Advancing twenty borings using a hand auger to depths of 5 feet.
- Collecting soil samples from each of the borings with a decontaminated hand trowel and placing in laboratory prepared glass jars.
- Sealing the glass jars with Teflon-lined lids, labeling with a unique identification number, and storing in a chilled container until delivery to Environmental Science Corporation Laboratory.
- Analyzing twenty soil samples for lead by EPA Test Method 6010.
- Collecting twenty samples of construction debris to assess the area for potential asbestos containing materials (ACM).

In addition to the activities outline above, Terracon prepared this report summarizing field activities, analytical results and recommendations.

1.3 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

1.4 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.5 Reliance

This LSI report has been prepared for the exclusive use and reliance of the City of Las Cruces. Use or reliance by any other party is prohibited without the written authorization of the City of Las Cruces and Terracon.

Reliance on the LSI by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 LITERATURE REVIEW

Terracon reviewed, in detailed, data from earlier investigations that have been conducted by the Bureau of Land Management (BLM) office and the City of Las Cruces (CLC).

A memorandum dated September 23, 1996, addressed to the State Director of the U.S. Department of Interior Bureau of Land Management, summarizes the history of project site. The memorandum explained that the BLM Las Cruces District Office (LCDO) issued a R&PP lease NMNM 081315 for 56.52 acres of land to the CLC for a landfill on November 1, 1959, for Lots 11 and 12, Section 10, T 23 S, R 2 E. The CLC relinquished the lease on September 12, 1966 and closed the landfill. As a result of the Elena Gallegos Exchange, in 1982, Lot 12 and an additional 500-acre tract of land were retained for future public purposes and the BLM LCDO executed two agreements for the CLC and the Las Cruces Public Schools. The CLC planned to develop this land into two parks. At the same time, the City of Albuquerque acquired 2,800 acres of the Las Cruces East Mesa, which included a portion of Lot 11 and most of Section 10, with the exception a cemetery found in the area. However, when the Elena Gallegos Exchange was prepared, the old landfill (Lots 11 and 12) was omitted from the information given to the new proprietors. The historical uses of the site were discovered when Alameda Land and Development Corporation purchased 75 acres of Section 10. Consequently, in the early 1990s, the CLC recapped the north part of Lots 11 and 12, since the soil covering the trash had eroded and trash was exposed. In 1996 the CLC intended to acquire Lot 12 under the R&PP Act as open space and the right-of-ways for Roadrunner Parkway and Lohman Avenue but the BLM LCDO wanted to patent Lot 12 under the R&PP Act acknowledging the potential for hazardous waste and indemnifying the United States from any future liability. Furthermore, the LCDO proposed to sell the mineral estate beneath the R&PP patent, under Section U209 of the Federal Land Policy and Management Act (FLPMA) to reduce the clean up cost for BLM and terminate the split-estate situation.

Souder, Miller and Associates (SMA) conducted a Phase II Environmental Assessment (ESA) and prepared a summary report dated February 22, 2002 for the City of Las Cruces. The Phase II ESA was performed for the southeast corner of Lohman Avenue and Paseo de Oñate section (the northwest portion of Tract 9ac2). The report states that the subject property was part of a former landfill that discontinued receiving waste prior to the implementation of NMED Solid Waste Bureau (SWB) regulations. SMA collected several samples and analyzed the samples for ACM, VOCs, SVOCs, TPH, pesticides/PCBs, and TCLP metals. SMA also conducted a methane assessment. The laboratory results indicated the presence of friable ACM on the parcel. SMA also detected arsenic, barium, cadmium, chromium, lead, and mercury in the soil at concentrations above the method detection limits but below the New Mexico Environment Department (NMED) Soil Screening Levels (SSLs).

SCS Engineers was retained by the BLM office in 2003 to conduct a landfill gas survey at the former landfill. Based on the “Old Las Cruces Landfill Final Closure Plant, Doña Ana County,

New Mexico, Final Report" prepared by SCS Engineers, dated July 28, 2003, the City of Las Cruces closed the landfill and relinquished the lease in 1966. Closure consisted of covering the landfill with about two feet of soil. Furthermore, SCS Engineers prepared project work plan that specified sampling and analysis, quality assurance/control and health and safety procedures for landfill gas sampling. The work plan was submitted to the New Mexico Environment Department Air Quality Bureau, Enforcement Section for its approval prior to sampling. The work plan was approved in November 6, 2002. The work consisted of sampling soil 32 locations and conducting a methane survey of 53 utility manholes. Methane was not detected in the 32 soil sampling locations, nor in the 53 vaults surveyed.

Red J. Environmental Corporation (RED J), under contract with BLM, sampled the Old Las Cruces Municipal Landifll on February 2, 2005. RED J collected 24 soil samples at depths ranging from 4 to 12 feet in the area of the old landfill. The sampling event indicated the presence of asbestos containing materials (ACM), and heavy metals. DDT, DDE, and lead were also detected. The concentrations of these chemicals are below the residential and commercial NMED SSLs, with the exception of one soil sample identified as 979-1-24, where the lead concentration was above the residential screening level, but below the commercial screening level. In addition, three samples confirmed the presence of ACM, with ACM contents ranging from 2% to 10% chrysotile and crocidolite asbestos.

3.0 SITE ACTIVITIES

On April 25 and August 9, 2006, a Terracon field crew investigated the subsurface soil conditions in the areas of the former landfill with a total of 40 borings advanced using a hand auger and/or shovel to a maximum depth of 5 feet. The purpose of the investigation was to assess the areas for potential ACM, lead, VOCs, SVOCs, TCLP Metals, pesticides/PCBs and TPH in subsurface soils. Figure 3 is a site plan that indicates the approximate locations of the soil borings and suspect ACM sampling location (Appendix A).

Terracon's field activities were conducted in the southeast section (northwest portion of Tract 9ar2) on April 25, 2006 and in the southwest section (Tract 9cr1) on August 9, 2006, by Mr. William T. Martinez, a Terracon geotechnical staff engineer, and Carina G. Munoz, a Terracon environmental staff engineer and licensed AHERA inspector. Terracon notified New Mexico One Call and Blue Stake to locate underground public utilities at the site prior to sampling activities.

Soil excavation equipment was cleaned between sampling locations using a solution of Alconox and de-ionized water.

Soil samples were collected from each boring with a decontaminated hand trowel and placed in laboratory prepared glass jars. The jars were sealed with Teflon-lined lids, labeled with a

unique identification number, and stored on ice until delivery to Environmental Science Corporation Laboratory under Chain-of-custody requirements.

3.1 Southeast Section (Northwest portion of Tract 9ar2)

Terracon collected 20 soil samples for lead analysis from the southeast section. The samples were collected at the surface and at depths of 2.5 feet and 5 feet. Additionally, Terracon collected twenty samples in the southeast section of construction debris to assess the area for potential ACM in areas that were not previously sampled by SMA. The suspect ACM samples were collected by an Asbestos Hazard Emergency Response Act (AHERA) accredited licensed asbestos inspector.

3.2 Southwest Section (Tract 9cr1)

Ten soil samples collected for analysis of TCLP Metals, VOCs, Semi-VOCs, Pesticides/PCBs and TPH in the southwest section were collected at the surface and at a depth of 2.5 feet unless trash was encountered at a greater depth. Additionally, Terracon collected ten samples in the southwest section of construction debris to assess the area for potential asbestos containing material (ACM). The samples of ACM collected in the southwest section were randomly selected. The suspect ACM samples were collected by an Asbestos Hazard Emergency Response Act (AHERA) accredited licensed asbestos inspector.

4.0 LABORATORY ANALYTICAL METHODS AND RESULTS

Soil samples were analyzed by Environmental Science Corporation Laboratory. Twenty samples were analyzed for lead by EPA Test Method 6010; five samples were analyzed for TPH by EPA Test Method 418.1; and two samples were analyzed for Pesticides/PCBs by EPA Test Method 8081/8082. Two additional samples were analyzed for SVOCs by EPA Test Method 8270 and two samples were analyzed for TCLP Metals by EPA Test Methods 1311 and 6010. In the southeast and southwest sections, twenty and ten additional samples of suspect ACM, respectively, were analyzed for asbestos content by Polarized Light Microscopy (PLM) “Interim Method of Determination of Asbestos in Bulk Insulation Samples” by Analytica Solutions, Inc. an AHA accredited and NVLAP registered (code 101086-0) laboratory.

The results of the laboratory testing and ACM suspect materials for the southeast section are presented Tables 1 and 2, respectively. The results of the laboratory testing and ACM suspect material for the southwest section are presented in Tables 3 through 7. Laboratory analytical reports are included in Appendix B.

TABLE 1: SUMMARY OF LABORATORY RESULTS
Soil sampling for Lead (Pb) – Southeast Section (Northwest Portion of Tract 9ar2)
(EPA Method 6010B)

Sample I.D.	Laboratory Result Pb (mg/kg)	NMED Soil Screening Levels (mg/kg) for Pb*	
		Residential	Commercial/Industrial
B-1	25.0	400	750
B-2	3.1	400	750
B-3	5.6	400	750
B-4	26.0	400	750
B-5	70.0	400	750
B-6	3.3	400	750
B-7	2.4	400	750
B-8	4.9	400	750
B-9	3.2	400	750
B-10	4.5	400	750
B-11	2.5	400	750
B-12	18.0	400	750
B-13	40.0	400	750
B-14	6.7	400	750
B-15	6.8	400	750
B-16	27.0	400	750
B-17	4.8	400	750
B-18	7.2	400	750
B-19	6.8	400	750
B-20	7.1	400	750

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste.*

TABLE 2: SUMMARY OF LABORATORY RESULTS
Suspect ACM Samples – Southeast Section (Northwest Portion of Tract 9ar2)

Sample I.D.	Description	Percentage and Type of Asbestos
SN- 1	White ceramic tile	0%
SN- 1	Pink plaster with paint	0%
SN- 2	White plaster	0%
SN- 3	White rock	0%
SN- 4	Red/gray cement asbestos board	20% Chrysotile
SN- 5	Off-white sand plaster	0%
SN- 6	Off-white felt	75% Chrysotile
SN- 7	Light tan floor tile	10% Chrysotile
SN- 8	Gray rock	0%
SN- 9	Brown/light gray felt material	0%
SN-10	Beige checkered linoleum	40% Chrysotile
SN-11	Brown foam with sand	0%
SN-12	Gray paper, insulation with debris	0%
SN-13	Rust-colored material	0%
SN-14	Black shingles with white granules	0%
SN-15	Black tar with blue granules	0%
SN-16	Tan sand material	0%
SN-18	Two parts	12.3 % Chrysotile 1.4% Crocidolite
SN-8	Part A, brown floor tile	15% Chrysotile
SN-18	Part B, black tar	9.0% Chrysotile 3.0% Crocidolite
SN-19	White floor tile	20.0% Chrysotile
SN-20	Brown/white pressboard	0%

TABLE 3: SUMMARY OF LABORATORY RESULTS
Soil sampling for TPH – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)					NMED Soil Screening Levels (mg/kg)*	
	SB-1	SB-3	SB-6	SB-7	SB-10	Residential	Commercial
TPH / 418.1	BDL	BDL	BDL	BDL	BDL	500	1,000

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 4: SUMMARY OF LABORATORY RESULTS
Soil sampling for Pesticides and PCBs – Southwest Section (Tract 9ac1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-2	SB-9	Residential	Commercial
Pesticides and PCBs / 8081 and 8082				
Aldrin	BDL	BDL	0.284	1.12
Alpha BHC	BDL	BDL	0.902	3.99
Delta BHC	BDL	BDL	3.16	14.0
Gamma BHC	BDL	BDL	4.37	19.3
Chlordane	BDL	BDL	16.2	71.9
4,4-DDD	BDL	BDL	24.4	111
4,4-DDE	BDL	BDL	17.2	78.1
4.4-DDT	BDL	BDL	17.2	78.1
Dieldrin	BDL	BDL	0.304	1.2
Endosulfan I	BDL	BDL	360	4,100
Endosulfan II	BDL	BDL	*NA*	*NA*
Endosulfan Sulfate	BDL	BDL	*NA*	*NA*
Endrin	BDL	BDL	18.0	205
Endrin Aldhyde	BDL	BDL	*NA*	*NA*
Endrin ketone	BDL	BDL	*NA*	*NA*
Heptachlor	BDL	BDL	1.08	4.26
Heptachlor epoxide	BDL	BDL	*NA*	*NA*
Hexachlorobenzene	BDL	BDL	3.04	12.0
Methoxychlor	BDL	BDL	*NA*	*NA*
Toxaphene	BDL	BDL	4.42	17.4
PCB 1016	BDL	BDL	2.22	8.26
PCB 1221	BDL	BDL	2.22	8.26
PCB 1232	BDL	BDL	2.22	8.26
PCB 1242	0.31	BDL	2.22	8.26
PCB 1248	BDL	BDL	2.22	8.26
PCB 1254	BDL	BDL	1.11	8.26
PCB 1260	BDL	BDL	2.22	8.26

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 5: SUMMARY OF LABORATORY RESULTS
Soil sampling for SVOCs – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-4	SB-8	Residential	Commercial
SVOCs / 8270				
Acenaphtene	BDL	BDL	469	34,800
Acenaphthylene	BDL	BDL	*NA*	*NA*
Anthracene	BDL	BDL	23,500	264,000
Benzidene	BDL	BDL	211	833
Benzo(a)anthracene	BDL	BDL	6.24	23.4
Benzo(b)fluoranthene	BDL	BDL	6.21	23.4
Benzo(k)fluoranthene	BDL	BDL	62.1	234
Benzo(g,h,i)perylene	BDL	BDL	*NA*	*NA*
Benzo(a)pyrene	BDL	BDL	0.621	2.34
Bis(2-chlorethoxy)methane	BDL	BDL	*NA*	*NA*
Bis(2-chloroethyl)ether	BDL	BDL	2.04	5.95
Bis(2-chloroisopropyl)ether	BDL	BDL	3,130	6,190
4-Bromophenyl-phenylether	BDL	BDL	*NA*	*NA*
2-Chloronaphtalene	BDL	BDL	*NA*	*NA*
4-Chlorophenyl-phenylether	BDL	BDL	*NA*	*NA*
Chrysene	BDL	BDL	621	2,340
Dibenz(a,h)anthracene	BDL	BDL	0.621	2.34
3,3-Dichlorobenzidine	BDL	BDL	10.8	42.6
2,4-Dinitrotoluene	BDL	BDL	120	1,370
2,6-Dinitrotulene	BDL	BDL	*NA*	*NA*
Fluoranthene	BDL	BDL	2,250	24,400
Fluorene	BDL	BDL	3,130	29,400
Hexachlorobenzene	BDL	BDL	3.04	12.0
Hexachloro-1,3-butadiene	BDL	BDL	12.0	137
Hexachlorocyclopentadiene	BDL	BDL	125	4,100
Hexachloroethane	BDL	BDL	60.0	684
Indeno (1,2,3-cd)pyrene	BDL	BDL	6.21	23.4
Isophorone	BDL	BDL	5,120	20,200
Naphthalene	BDL	BDL	71.9	98.3
Nitrobenzene	BDL	BDL	21.8	136
n-Nitrosodimethylamine	BDL	BDL	0.0954	0.376
n-Nitrosodiphenylamine	BDL	BDL	993	3,910
n-Nitrosodi-n-propylamine	BDL	BDL	*NA*	*NA*
Phenanthrene	BDL	BDL	1,800	20,500
Benzylbutyl phthalate	BDL	BDL	*NA*	*NA*
Bis(2-enhylhexyl)phthalate	BDL	BDL	347	1,370

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-4	SB-8	Residential	Commercial
SVOCs / 8270				
Di-n-butyl phthalate	BDL	BDL	6,000	68,400
Diethyl phthalate	BDL	BDL	48,000	100,000
Dimethyl phthalate	BDL	BDL	100,000	100,000
Di-n-octyl-phthalate	BDL	BDL	*NA*	*NA*
Pyrene	BDL	BDL	2,300	31,300
1,2,4-Trichlorobenzene	BDL	BDL	651	853
4-Chloro-3-methylphenol	BDL	BDL	*NA*	*NA*
2-Chlorophenol	BDL	BDL	391	807
2,4-Dichlorophenol	BDL	BDL	180	2,050
2,4,-Dimethylphenol	BDL	BDL	1,200	13,700
4,6-Dinitro-2-methylphenol	BDL	BDL	*NA*	*NA*
2,4-Dinitrophenol	BDL	BDL	*NA*	*NA*
2-Nitrophenol	BDL	BDL	*NA*	*NA*
4-Nitrophenol	BDL	BDL	*NA*	*NA*
Pentachlorophenol	BDL	BDL	29.8	100
Phenol	BDL	BDL	18,000	100,000
2,4,6-Tribromophenol	BDL	BDL	*NA*	*NA*

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 6: SUMMARY OF LABORATORY RESULTS
Soil sampling for TCLP Metals – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-5	SB-9	Residential	Commercial
TCLP Metals				
Mercury	BDL	BDL	23.5	341
Arsenic	BDL	BDL	3.9	17.7
Barium	1.1	1.4	5,450	78,300
Cadmium	BDL	BDL	74.1	8,600
Chromium	BDL	BDL	NA	NA
Lead	BDL	BDL	400	750
Selenium	BDL	BDL	391	5,680
Silver	BDL	BDL	391	5,680

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 7: SUMMARY OF LABORATORY RESULTS
Suspect Asbestos Bulk Samples – Southwest Section (Tract 9cr1)

Sample I.D.	Description	Percentage and Type of Asbestos
CLCSN-1	Gray and yellow floor tile	10% Chrysotile
CLCSN-2[A]	Off-white perlitic plaster	0%
CLCSN-2[B]	White foam	0%
CLCSN-3	Gray and tan floor tile-like material	0%
CLCSN-4	Brown pressboard	0%
CLCSN-5	Black shingle with granules	0%
CLCSN-6	Fine white material	0%
CLCSN-7[A]	White foam	0%
CLCSN-7[B]	Black mastic-like material	0%
CLCSN-8	Light gray floor tile	20% Chrysotile
CLCSN-9[A]	Gray floor tile	Less then 1% Chrysotile
CLCSN-9[B]	Black mastic	5% Chrysotile
CLCSN-9[C]	Fine white material	0%
CLCSN-10	Light brow material	0%

5.0 DATA EVALUATION

In general, concentrations of TPH, Pesticides/PCBs, SVOCs and TCLP Metals were below laboratory detection limits. Lead concentrations were detected in soil samples collected in the southeast section (northeast portion of Tract 9ar2). Concentrations of PCB 1242 was detected in Soil Boring 2 and barium was detected in Soil Borings 5 and 9 advanced in the southwest section (Tract 9cr1). The concentrations are above the method detection limits but below NMED SSLs for residential and commercial exposed pathways.

The asbestos laboratory analysis confirmed that some of the construction debris found at the southeast and southwest corners of the site contain greater than 1.0% asbestos.

6.0 FINDINGS AND RECOMMENDATIONS

Based on the review of documentation held by the BLM office, the project area lies within an area that the BLM LCDO issued a Recreation and Public Purpose (RPP) lease to the City of Las Cruces in 1959. The CLC closed the landfill and subsequently relinquished the lease in 1966. The reviewed literature also indicates that the CLC recapped the north parts of Lots 11 and 12 to prevent trash exposure.

Based on the analytical results lead, PCB and TCLP Metals concentrations detected in the soils are below the NMED SSLs for residential and commercial exposure pathways.

Bulk samples of construction debris collected and analyzed for ACM confirmed that the construction debris on both parcels of the project area contain asbestos. Terracon recommends abating the ACM prior to use of the property. Presented below are two methods to remove or cover the ACM to prevent asbestos fiber releases.

The first alternative is to remove the surface soils that have been impacted by the ACM. This can be accomplished by excavating the ACM debris and associated soil and placing the material in roll-off bins lined six mill plastic liners. The transporter should ensure that the ACM waste is properly contained to avoid any fiber release. Additionally, the ACM waste should be appropriately labeled. The ACM waste should be hauled to a landfill that is licensed to receive asbestos waste. The authorized landfill should be notified prior to waste delivery.

The second alternative is to cover the area containing the asbestos with compacted engineered fill, free of asbestos, to provide a 24-inch final cover. To control erosion of the final cover it is recommended that the area is graded to prevent site runoff and re-vegetated.

The estimated cost for the two alternatives is presented in the following tables.

TABLE 8: ALTERNATIVE 1 – ACM/SOILS REMOVAL

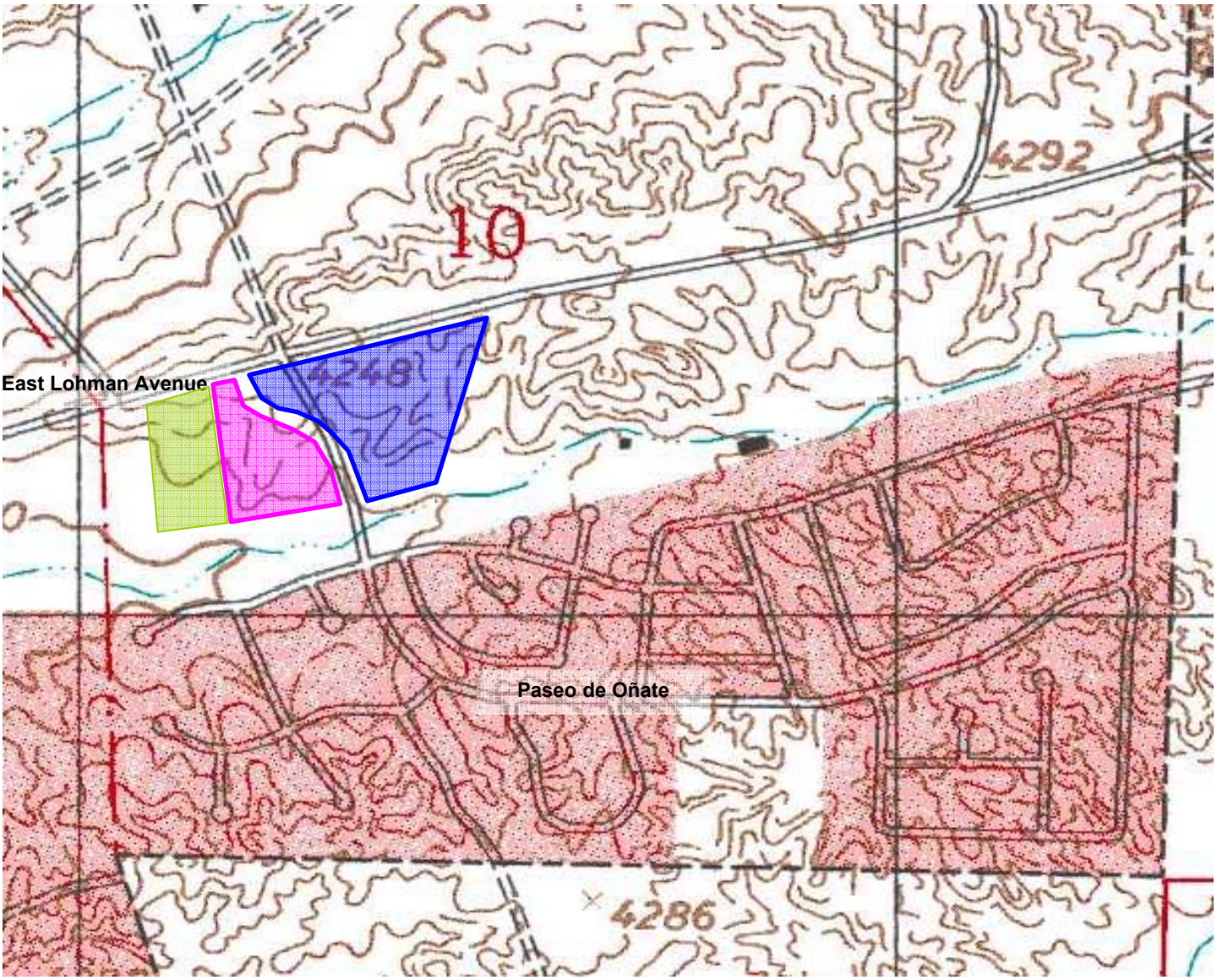
Task	Quantity*	Units	Unit Price	Amount
Mobilization/Demolition	1	Lump	$1,500.00	$1,500.00
Water Truck (2)	23	Day	$1,500.00	$34,500.00
Excavation	9,000	CY	$4.00	$36,000.00
Load	9,000	CY	$2.00	$18,000.00
Truck Bed Liner (double liner)	900	Each	$225.00	$202,500.00
Transportation & Disposal of ACM soils	9,000	CY	$57.55	$517,950.00
Delivery of Clean Fill	9,000	CY	$5.00	$45,000.00
Placement and Compaction	9,000	CY	$2.00	$18,000.00
Terracon Fee	1	Lump	$13,800.00	$13,800.00
			TOTAL	**$887,250.00**

**Estimated quantity based in the removal of 6 inches of soils on the entire 11-acre site.*

TABLE 9: ALTERNATIVE 2 - ACM ENCAPSULATION

Task	Quantity*	Units	Unit Price	Amount
Mobilization/Demolition	1	Lump	$5650.00	$5,650.00
Water Truck (2)	92	Day	$1,500.00	$138,000.00
Excavation	36,000	CY	$4.00	$144,000.00
Load	36,000	CY	$2.00	$72,000.00
Delivery of Clean Fill	36,000	CY	$5.00	$180,000.00
Placement and Compaction	36,000	CY	$2.00	$72,000.00
Terracon Fee	1	Lump	$13,800.00	$55,200.00
			TOTAL	**$666,850.00**

**Estimated quantity based on 24 inches of fill on the entire 11-acre site.*



Source: USGS 7.5-Minute Topographic Map
"Tortugas Mountain Quadrangle,
New Mexico – Doña Ana Co." dated 1996

LEGEND:

- BLM land
- SWC Section
- SEC Section

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

TOPOGRAPHIC MAP
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE LAS CRUCES,
DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon 1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Project No.** 68067007
Designed By: OTHER		**Scale:** Not to scale
Checked By: MEW		**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure1.doc		**Figure No.** 1

Source: TerraServer USA White Sands Aerial Photograph 2003.

LEGEND:

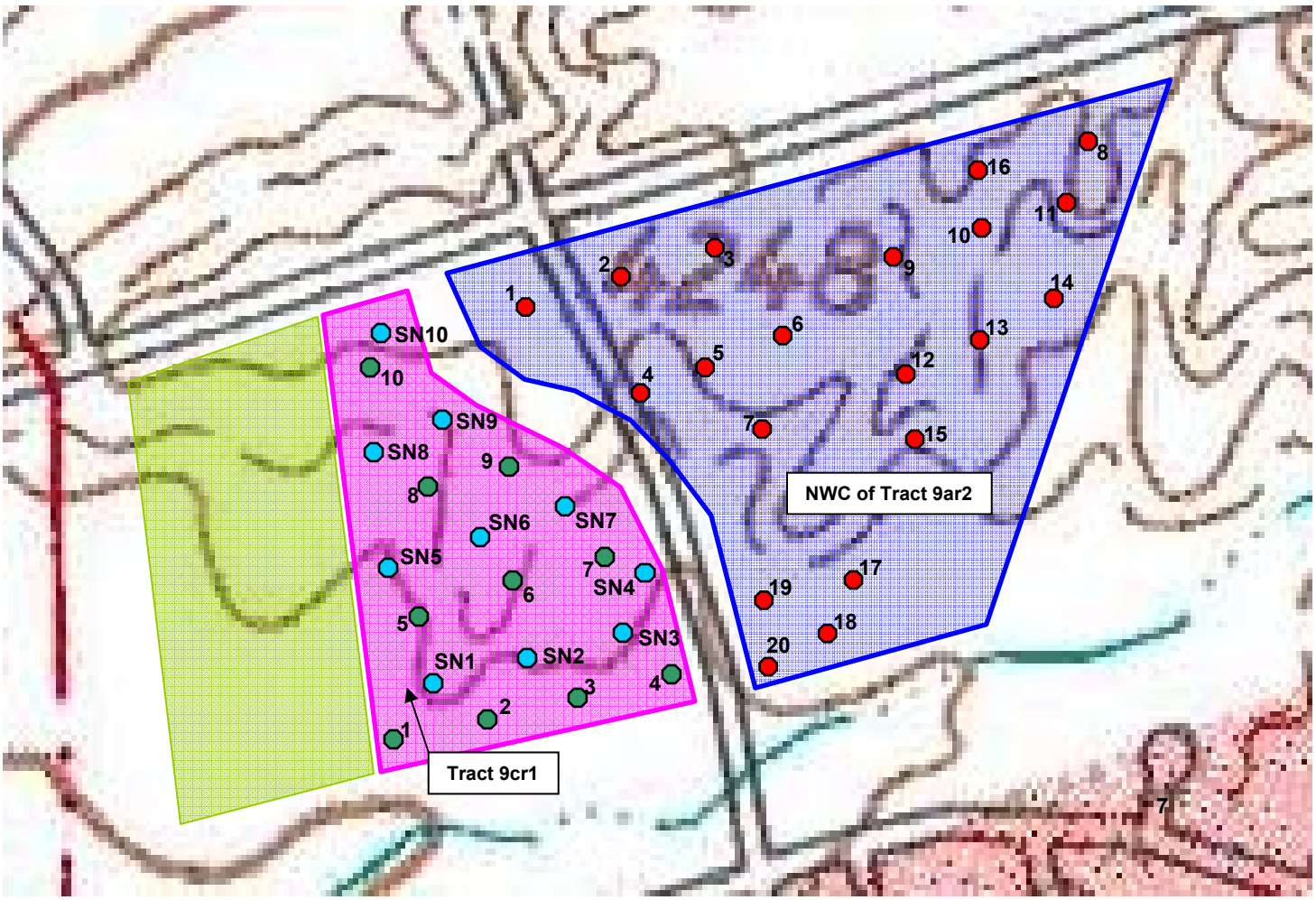
- BLM land
- SWC Section
- SEC Section

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

SITE DIAGRAM
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon 1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Project No.** 68067007
Designed By: OTHER		**Scale:** Not to scale
Checked By: MEW		**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure2.doc		**Figure No.** 2



Source: USGS 7.5-Minute Topographic Map
"Tortugas Mountain Quadrangle,
New Mexico – Doña Ana Co." dated 1996

LEGEND:

- Southeast Section
- Soil and ACM samples location
- Southwest Section
- Soil sample location
- ACM sample location
- BLM land

N

SOIL AND ACM SAMPLES LOCATION
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon	**Project No.** 68067007
Designed By: OTHER		**Scale:** Not to scale
Checked By: MEW	1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure3.doc		**Figure No.** 3

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

ATTACHMENT 7

Terracon 2011 Limited Site Investigation Report

Limited Site Investigation

City of Albuquerque Property Former Landfill

Section 10, Township 23 South, Range 2 East

Las Cruces, New Mexico

August 8, 2011

Terracon Project No. 68107011

Prepared for:

[redacted]

Prepared by:

Terracon Consultants, Inc.
Las Cruces, New Mexico

August 8, 2011

[redacted]

Attn: [redacted]

Re: Limited Site Investigation
City of Albuquerque Property Former Landfill
Section 10, Township 23 South, Range 2 East
Las Cruces, New Mexico
Terracon Project No. 68107011

Dear [redacted]

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Limited Site Investigation (LSI) report for the above-referenced site. This assessment was performed in accordance with your correspondence dated August 9, 2010.

Terracon appreciates the opportunity to be of continued service to [redacted] If you have any questions or comments pertaining to the material presented herein, please contact the undersigned at 575.527.1700

Sincerely,
Terracon Consultants, Inc.

Larri L. Erstad
Senior Environmental Technician

Mary E. Wells, P.E.
NM Environmental Department Manager / Principal

TABLE OF CONTENTS

APPENDICES

LIMITED SITE INVESTIGATION
CITY OF ALBUQUERQUE FORMER LANDFILL
SECTION 10, TOWNSHIP 23 SOUTH, RANGE 2 E
LAS CRUCES, NEW MEXICO

Terracon Project No. 68107011
August 1, 2011

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a Limited Site Investigation (LSI) of the property owned by the City of Albuquerque, Tract 9ar2 and the arroyo located at the intersection of Paseo de Oñate and Pinnacle View in Las Cruces, Doña Ana New Mexico.

1.1 Site Description

Site Name	City of Albuquerque Former Landfill
Site Location/Address	Section 10, Township 23 South, Range 2 East
Land Area	Tract 9ar2: 84.05 acres City of Albuquerque, parcel 02-21775 (northwest intersection of Paseo de Oñate and Pinnacle View): 6.76 acres City of Albuquerque, parcel 02-25758 (northeast intersection of Paseo de Oñate and Pinnacle View): 18.05 acres
Site Improvements	Undeveloped

1.2 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

1.3 Additional Scope Limitation

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of

hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.4 Reliance

This LSI report has been prepared for the exclusive use and reliance of [redacted] and the City of Albuquerque. Use or reliance by any other party is prohibited without the written authorization [redacted] the City of Albuquerque and Terracon.

Reliance on the LSI by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 HISTORICAL REVIEW

2.1 Historical Research

2.1.1 Aerial Photographs

Terracon reviewed selected historical aerial photographs to obtain information regarding the history of the development of the site. The information of the site is summarized below and copies of the historical aerial photographs are provided in Appendix C:

Year	Description			
	Tract 9cr1	**Tract 9ar2**	**Parcel 02-21775**	**Parcel 02-25758**
1935	Undeveloped desert land-undisturbed topography	Undeveloped desert land–undisturbed topography	Arroyo within undeveloped desert land – undisturbed	Arroyo within undeveloped desert land – undisturbed

Year	Description			
	Tract 9cr1	Tract 9ar2	Parcel 02-21775	Parcel 02-25758
1966	The tract has been disturbed and it appears that the dumping area has been capped.	The west end has been disturbed and it appears that the dumping area has been capped. Truck marks and dirt roads are visible. The remainder of the site consists of undisturbed undeveloped desert land.	The majority of the arroyo appears to be undisturbed. The northeast corner of this parcel (near Paseo de Oñate) appears that the dumping area has been capped.	The arroyo appears to be undisturbed. The northwest corner of this parcel (near Paseo de Oñate) appears to have been graded.
1987	Undeveloped land. Re-vegetation appears to have begun, although the topography appears to remain undisturbed.	Undeveloped land. Re-vegetation appears to have begun on the west end, although the topography appears to remain undisturbed.	The majority of the arroyo appears to be undisturbed. The northeast corner of this parcel (near Paseo de Oñate) appears to have begun re-vegetating.	The arroyo appears to be undisturbed. The northwest corner of this parcel (near Paseo de Oñate) appears to have begun re-vegetating.
2003	A roadway to the east has been added. Dirt roads are visible. The tract consists of undeveloped undisturbed land.	The main roadway to the north (formerly Foothills Boulevard) has been realigned to the north (Lohman Avenue). Dirt roads are visible on east-west and north-south direction on the west end of the tract. The remainder of the site consists of undeveloped undisturbed land.	The majority of the arroyo appears to be undisturbed. The northeast corner of this parcel (near Paseo de Oñate) appears to have re-vegetated.	The arroyo appears to be undisturbed. The northwest corner of this parcel (near Paseo de Oñate) appears to have re-vegetated.

2.1.2 Deed Information

***Pending information from [redacted]**

2.2 Literature Review

Terracon reviewed, in detailed, data from earlier investigations and government agencies correspondence from different entities. The information reviews is summarized in the following paragraphs and copies are provided in Appendix C.

Bureau of Land Management (BLM) Memorandum

A memorandum dated September 23, 1996, addressed to the State Director of the U.S. Department of Interior Bureau of Land Management, summarizes the history of project site. The memorandum explained that the BLM Las Cruces District Office (LCDO) issued a Recreation and Public Purposes (R&PP) lease NMNM 081315 for 56.52 acres of land to the City of Las Cruces (CLC) for a landfill on November 1, 1959, for Lots 11 and 12, Section 10, T

23 S, R 2 E. The CLC relinquished the lease on September 12, 1966 and closed the landfill. As a result of the Elena Gallegos Exchange, in 1982, Lot 12 and an additional 500-acre tract of land were retained for future public purposes and the BLM LCDO executed two agreements for the CLC and the Las Cruces Public Schools. The CLC planned to develop this land into two parks. At the same time, the City of Albuquerque acquired 2,800 acres of the Las Cruces East Mesa, which included a portion of Lot 11 and most of Section 10, with the exception a cemetery found in the area. However, when the Elena Gallegos Exchange was prepared, the old landfill (Lots 11 and 12) was omitted from the information given to the new proprietors. The historical uses of the site were discovered when Alameda Land and Development Corporation purchased 75 acres of Section 10. Consequently, in the early 1990s, the CLC recapped the north part of Lots 11 and 12, since the soil covering the trash had eroded and trash was exposed. In 1996 the CLC intended to acquire Lot 12 under the R&PP Act as open space and the right-of-ways for Roadrunner Parkway and Lohman Avenue but the BLM LCDO wanted to patent Lot 12 under the R&PP Act acknowledging the potential for hazardous waste and indemnifying the United States from any future liability. Furthermore, the LCDO proposed to sell the mineral estate beneath the R&PP patent, under Section U209 of the Federal Land Policy and Management Act (FLPMA) to reduce the clean up cost for BLM and terminate the split-estate situation.

Souder Miller and Associated Phase II Environmental Site Assessment

Souder, Miller and Associates (SMA) conducted a Phase II Environmental Assessment (ESA) and prepared a summary report dated February 22, 2002 for the City of Las Cruces. The Phase II ESA was performed for the southeast corner of Lohman Avenue and Paseo de Oñate section (the northwest portion of Tract 9ar2). The report states that the subject property was part of a former landfill that discontinued receiving waste prior to the implementation of New Mexico Environmental Department (NMED) Solid Waste Bureau (SWB) regulations. SMA collected several samples and analyzed the samples for asbestos containing materials (ACM), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), pesticides/ polychlorinated biphenyls (PCBs), and toxic characteristic leachate procedure (TCLP) metals. SMA also conducted a methane assessment. The laboratory results indicated the presence of friable ACM on the parcel. SMA also detected arsenic, barium, cadmium, chromium, lead, and mercury in the soil at concentrations above the method detection limits, but below the NMED Soil Screening Levels (SSLs).

Red J Environmental Corporation Site Sampling

Red J. Environmental Corporation (RED J), under contract with BLM, sampled the Old Las Cruces Municipal Landfill on February 2, 2005. RED J collected 24 soil samples at depths ranging from 4 to 12 feet in the area of the old landfill. The sampling event indicated the presence of asbestos containing materials (ACM), and heavy metals. Dichloro diphenyl tetrachloroethane (DDT), dichloro diphenyl dichloroethane (DDE), and lead were also detected. The concentrations of these chemicals are below the residential and commercial NMED SSLs, with the exception of one soil sample identified as 979-1-24, where the lead concentration was above the residential screening level, but below the commercial screening level. In addition,

three samples confirmed the presence of ACM, with ACM contents ranging from 2% to 10% chrysotile and crocidolite asbestos.

Terracon Consultants, Inc. Limited Site Investigation

Terracon conducted a Limited Site Investigation (LSI) and prepared a report dated October 3, 2006 for the CLC. The LSI was performed for the southeast (Tract 9ar2) and southwest (Tract 9cr1) corners of Lohman Avenue and Paseo de Oñate in Las Cruces, New Mexico. Terracon collected 20 soil samples at the surface and at depths of 2.5 feet and 5 feet to assess the area for lead and ACM (Tract 9cr1). Twenty samples were collected in the areas not previously sampled by SMA (Tract 9ar2). The laboratory analysis confirmed some of the construction debris found at the site contained asbestos in concentrations above 1.0%. Additionally, lead concentrations were detected in the soil samples of Tract 9ar2.

Correspondence between BLM and NMED

BLM – Las Cruces District Office sent a letter to the NMED Ground Water Quality Bureau on September 4, 2007. The letter summarized the history of the CLC landfill, the negotiations between BLM and CLC and the dates when the landfill was capped and re-capped. The BLM letter request closure for the landfill to proceed with the proposed improvements for this area.

NMED Solid Waste Bureau (SWB) Notice of Violation

NMED SWB issued a notice of violation to the City of Albuquerque Real Property Division on September 2, 2009. The notice indicates that municipal solid waste has been exposed on the City of Albuquerque Property along the embankment of the arroyo. The NMED requested their cooperation to properly dispose the waste at the site.

3.0 SITE INVESTIGATION

3.1 Field Activities

On September 20, 22 and 23, 2010, Terracon's field crew investigated the subsurface soils of the City of Albuquerque property to establish the boundaries of the former landfill. Terracon subcontracted Rhino Environmental (Rhino) to excavate a total of 20 test pits utilizing a back-hoe equipped with a 6-inch wide bucket. The preliminary location of the test pits was established using the historical aerial photographs and the information obtained during our literature view, previously discussed in Section 2.2. Some of the locations were changed during our field activities, as a result of accessibility and observations during the field investigation. The test pits were backfilled with the excavated materials and wheeled rolled immediately upon completion.

The test pits were advanced to depths ranging between 5 feet and 13.5 feet below ground surface (bgs). The purpose of the test pits was to identify the thickness of the landfill within the boundaries of the City of Albuquerque property.

3.2 Field Observations

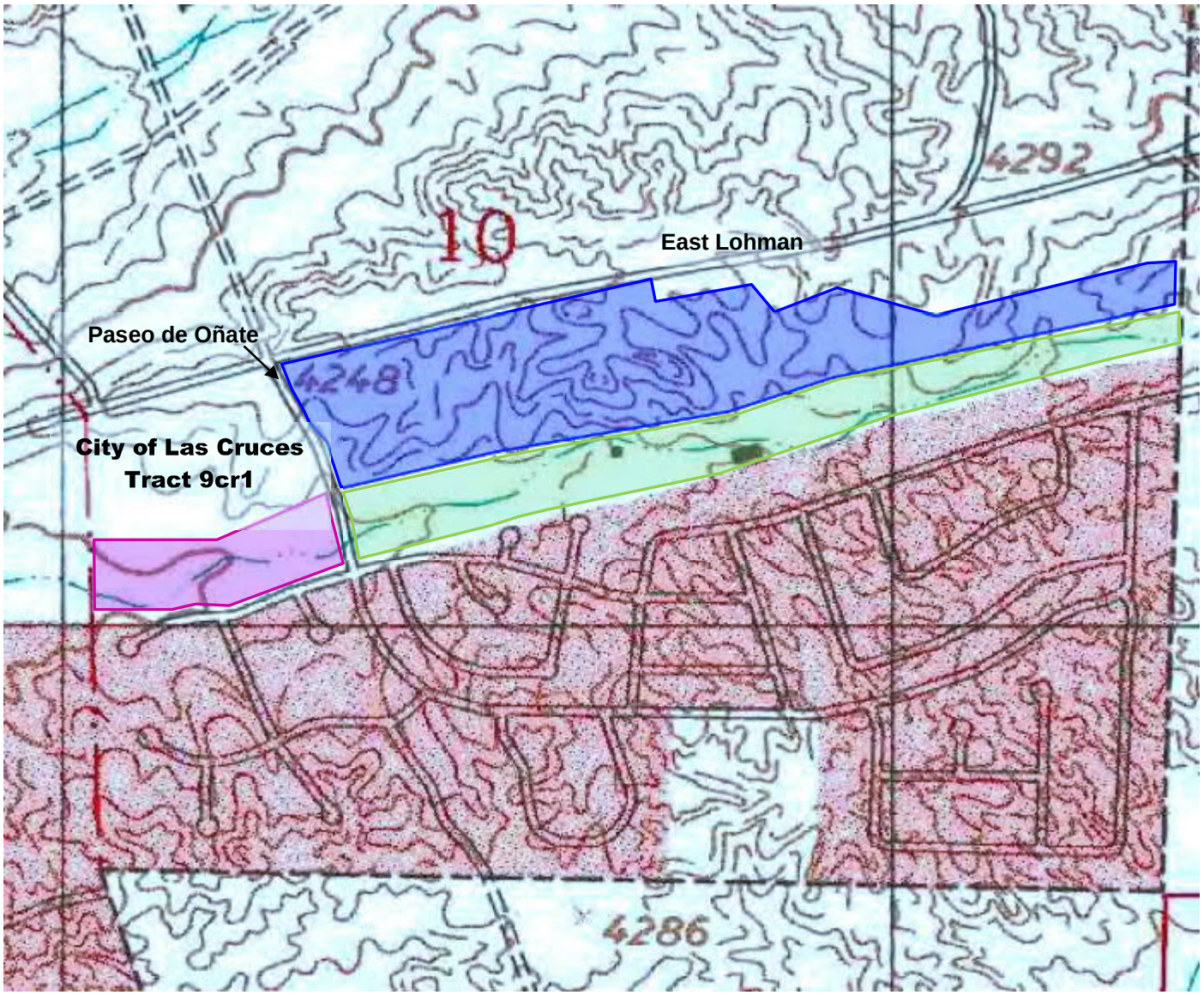
Twenty test pits were advanced at the site, of which, eleven showed waste consisting of household refuse and construction debris. The waste ranged in depths from the surface to a maximum depth of 13.5 feet bgs.

4.0 FINDINGS AND RECOMMENDATIONS

Based on the location of the test pits where waste was identified and the associated depths, the estimated amount of waste identified is approximately ***PENDING INFO FROM[redacted]** cubic yards

****Amounts and total cost for removal or covering…. pending upon information from[redacted]****

APPENDIX A



Source: USGS 7.5-Minute Topographic Map
"Tortugas Mountain Quadrangle,
New Mexico – Doña Ana Co." dated 1996

LEGEND:

City of Albuquerque, Parcel 02-25758

City of Albuquerque, Parcel 02-21775

City of Albuquerque, Tract 9ar2

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Project Mngr:	CGM
Drawn By:	CGM
Checked By:	MEW
Approved By:	MEW

Project No.	68107011
Scale	NTS
File No.	Topo
Date:	07/30/11

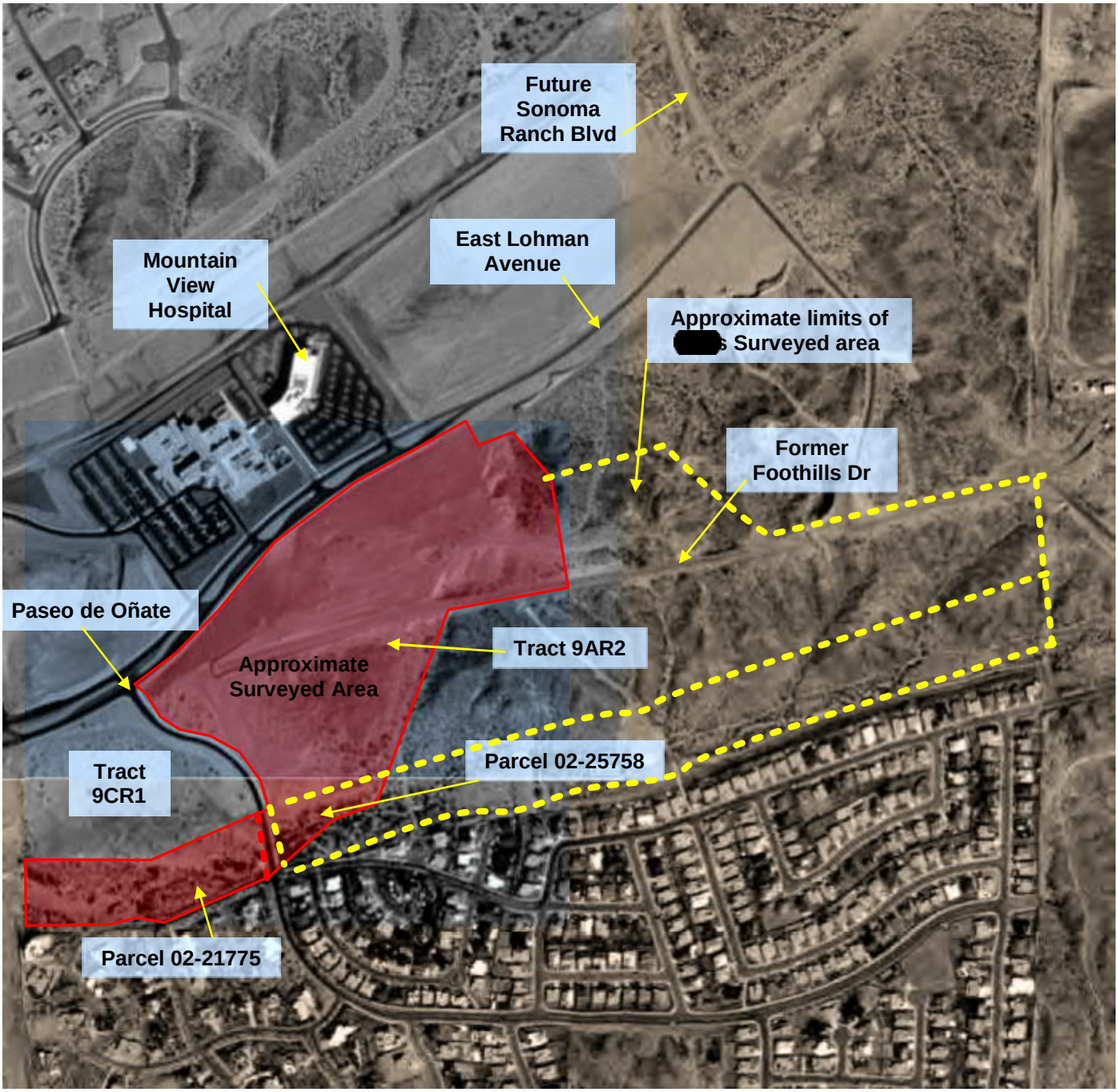
Terracon
Consulting Engineers & Scientists
1640 Hickory Loop, Suite 105
Las Cruces, New Mexico 88005
575.527.1700 Fax: 575.527.1092

GENERAL SITE LOCATION

City Of Albuquerque Former Landfill
S10, T23S, R2E
Las Cruces, New Mexico

FIG No.

1



Source: Microsoft Research Maps, 2003.

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Project Mngr:	CGM
Drawn By:	LLE
Checked By:	MEW
Approved By:	MEW

Project No.	68107011
Scale	NTS
File No.	Topo
Date:	07/15/11

Terracon
Consulting Engineers & Scientists
1640 Hickory Loop, Suite 105
Las Cruces, New Mexico 88005
575.527.1700 Fax: 575.527.1092

SURVEYED BOUNDARIES

City Of Albuquerque Former Landfill
S10, T23S, R2E
Las Cruces, New Mexico

FIG No.

2

Source: Microsoft Research Maps, 2003.

LEGEND

- **Clean Test pit without debris, approximate location**
- **Test pit with debris, approximate location**

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Project Mngr:	CGM
Drawn By:	LLE
Checked By:	MEW
Approved By:	MEW

Project No.	68107011
Scale	NTS
File No.	Topo
Date:	07/15/11

Terracon
Consulting Engineers & Scientists
1640 Hickory Loop, Suite 105
Las Cruces, New Mexico 88005
575.527.1700 Fax: 575.527.1092

TEST PIT LOCATIONS

City Of Albuquerque Former Landfill
S10, T23S, R2E
Las Cruces, New Mexico

FIG No.

3

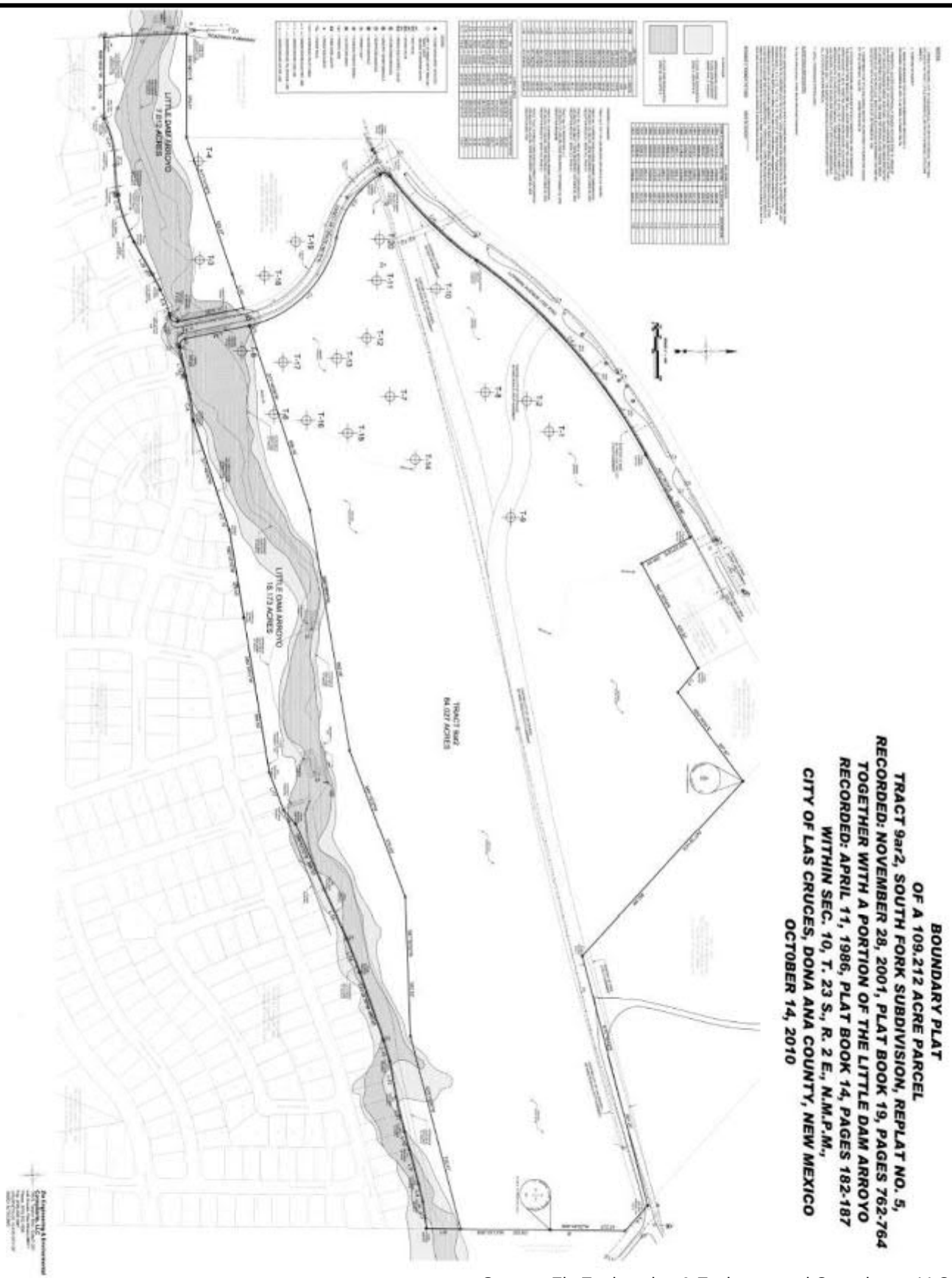


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Source: Zia Engineering & Environmental Consultants, LLC

Project Mngr:	MEW
Drawn By:	LLE
Checked By:	MEW
Approved By:	MEW

Project No.	68107011
Scale	NTS
File No.	Topo
Date:	08/1/11

Terracon
Consulting Engineers & Scientists
1640 Hickory Loop, Suite 105
Las Cruces, New Mexico 88005
575.527.1700 Fax: 575.527.1092

BOUNDARY PLAT

City Of Albuquerque Former Landfill
S10, T23S, R2E
Las Cruces, New Mexico

FIG No.

4

APPENDIX B

TABLE 1

City of Albuquerque Former Landfill-68107011

Test Pit #	Total Depth	~ debris depth	Type
T-1	5'	3' +	Household
T-2	8'	1' to 7.5'	Household
T-3	13.5'	6" +	Household
T-4	10'	6" to 10'	Household
T-5	5'	None	
T-6	7'	6" to 2'	Household
T-7	5'	None	
T-8	5'	None	
T-9	5'	None	
T-10	5'	None	
T-11	8'	6" to 4'	Construction & Household
T-12	7'	1' to 4.5'	Construction & Household
T-13	10'	6" to 6'	Construction & Household
T-14	8'	6" to 6.5'	Household
T-15	8'	6" to 6'	Household
T-16	5'	None	
T-17	5'	None	
T-18	5'	None	
T-19	7'	0 to 5'	Construction Debris
T-20	6'	None	

APPENDIX C


1935


1966


1987


2003

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess St.
Las Cruces, New Mexico 88005

TAKE PRIDE IN AMERICA

IN REPLY REFER TO
NMNM081315
2740 (036)

September 23, 1996

Memorandum

NMNM 52658
(Elena Gallegos Ex)

To: State Director (930)

From: District Manager (030)

Subject: Proposed Conveyance of Part of Old Landfill (Lot 12) to City of Las Cruces (CLC) for Open Space and City Streets

The Las Cruces District Office (LCDO) issued a R&PP lease NMNM 081315 (56.52 acres) to the CLC for a landfill on November 1, 1959, for Lots 11 & 12, Section 10, T. 23 S., R. 2 E (see maps 1 and 2). The CLC relinquished the lease on September 12, 1966, and closed the landfill.

When the Elena Gallegos Exchange was completed in 1982, Lot 12 (16.40 acres) and about 500 acres of public land were retained for future public purposes. The LCDO executed two agreements in 1982, one with the CLC and the other with the Las Cruces Public Schools, for these acreages. Three elementary schools, a middle school and high school have been constructed on the public purposes set-asides. The CLC has plans to develop two parks on the public land retained for public purposes.

The City of Albuquerque acquired some 2,800 acres in this exchange on the Las Cruces east mesa, including Lot 11 (40.12 acres) and all of the land in Section 10, except a 10-acre cemetery site (R&PP Patent). The old landfill (Lots 11 and 12) was inadvertently omitted from the list of encumbrances when the reports were prepared for the exchange. Lot 12 was retained for future public purposes and Lot 11 was transferred to the City of Albuquerque. The oldland fill was not discovered until 1988 when Mr. Pickle, Alameda Land & Development Corporation Inc. purchased 75 acres in the S 1/2 of Section 10 and extended the utility lines into the subdivision developed.

A subdivision replat was approved by the CLC on April 1996 for the development of the N 1/2 of Section 10. Lot 11 and other private land paralleling Foothills Drive were identified for open space and cannot be used for development (see South Fork Subdivision Replat).

The CLC plans to rename Foothills Drive to Lohman Avenue and file a right-of-way application across Lot 12 to increase the width to

150 feet. The CLC contracted with Western Technology Inc. to complete seven random core samples to a depth of 25 feet in Lot 12, along Foothills Drive (see Geotechnical maps). The boring log data, visual observation, and field screening results showed that landfill debris is not present along the proposed roadway alignment. These results were expected, since this was access to the old landfill, and the trash would be dumped on either side of the road. It appears there would be no problem in approving a right-of-way application to increase the width of Foothills Drive when it becomes Lohman Avenue.

Roadrunner Parkway and Foothills Drive intersect in Lot 12 making it an extremely valuable parcel of land, if it could be developed. If the old landfill could not be developed, then the only use would be the open space, similar to Lot 11 and other private land along Foothills Drive.

During the last few years, the soil covering the trash on the north part of Lots 11 and 12 has eroded and exposed the trash. We contacted the City and asked them to recap the old landfill. The City agreed and contacted Mr. Pickle for permission to work on Lot 11. The City directed the contractors to dump clean fill on the site and this summer the City covered the exposed trash and dressed up the north face of the old landfill. There is still an area of exposed trash along the south boundary that remains to be covered.

The CLC would like to acquire Lot 12 under the R&PP Act as open space and the rights-of-way for Roadrunner Parkway and Lohman Avenue (now Foothills Drive). The only development would be the city streets located on Lot 12. There would be periodic maintenance of the open space area, if the soils of the old landfill eroded. The LCDO would like to patent Lot 12 under the R&PP Act provided the CLC acknowledges the potential for hazardous materials on the site and indemnifies the United States from any future liability. Since the clean up costs to the BLM could be significant and the split-estate situation must be removed, the LCDO proposes to sell the mineral estate beneath the proposed R&PP patent, under Section 209 of the Federal Land Policy and Management Act (FLPMA).

Please advise us if this would be the proper way to dispose of the surface and mineral estate of Lot 12. Our goal is to dispose the surface and mineral estates without a reversionary clause.

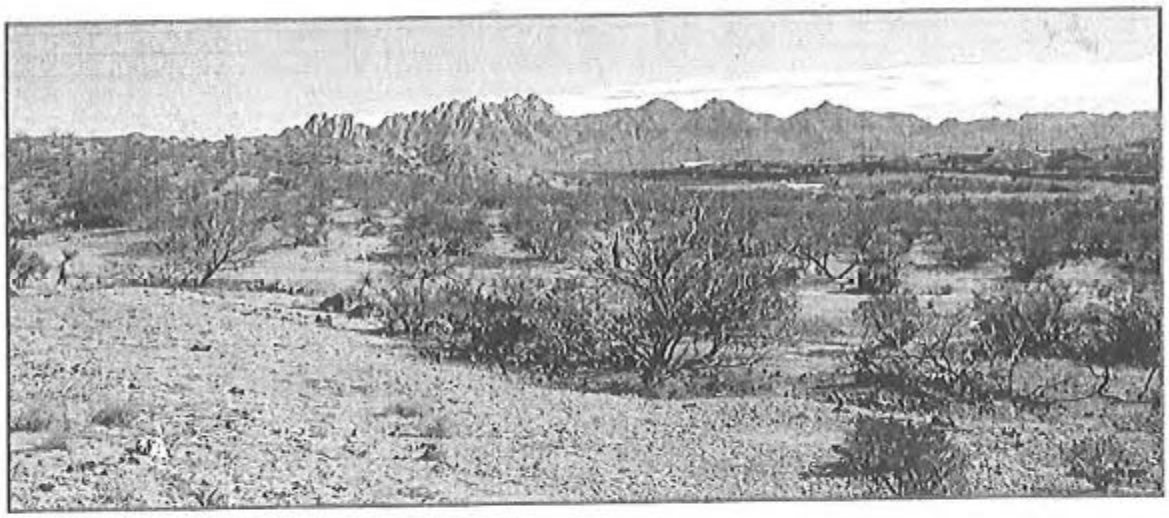
If you need any further information, please call Marvin M. James at (505) 525-4349.

/s/ Linda S.C. Rundell

036:MJames:em:x421:9/20/96:2740.MemoElenaGallegosEx

Christine Ochs

Phase II Environmental Site Assessment Report for the Parcel of Land Located at the Southeast Corner of Lohman Avenue & Paseo De Oñate Las Cruces, New Mexico



February 22, 2002

Prepared for submittal to the
City of Las Cruces

SOUDER, MILLER & ASSOCIATES

CIVIL/ENVIRONMENTAL SCIENTISTS & ENGINEERS

401 Seventeenth Street, Suite 4 • Las Cruces, NM 88005
(505) 647-0799 • (800) 460-5366 • Fax (505) 647-0680
www.millereng.com

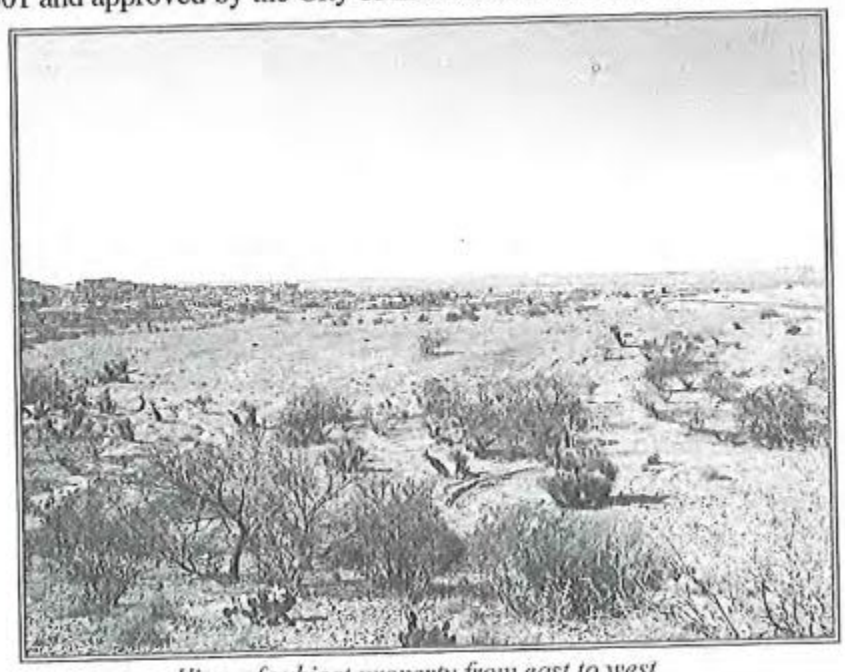
SANTA FE - FARMINGTON - ALBUQUERQUE - LAS CRUCES

PHASE II REPORT FOR PARCEL OF LAND LOCATED AT THE SOUTHEAST CORNER OF LOHMAN AVENUE AND PASEO DE OÑATE LAS CRUCES, NEW MEXICO

February 22, 2002

1.0 EXECUTIVE SUMMARY

The following information presents the results of the *Phase II–Environmental Site Assessment* completed for the parcel of land (subject property) located at the southeast corner of Lohman Avenue and Paseo de Oñate in Las Cruces, New Mexico. The subject property is part of a former landfill that discontinued receiving waste prior to implementation of the current New Mexico Environment Department (NMED) Solid Waste Bureau (SWB) regulations The current NMED SWB regulations (20 NMAC 9.1, October, 1995) govern operation and closure of facilities which received waste after May 14, 1989. The purpose and scope of this investigation is to identify typical, and suspected contaminants of concern associated with solid waste facilities. This investigation was completed as outlined in the proposal submitted by Souder, Miller & Associates (SMA) dated December 18, 2001 and approved by the City of Las Cruces on December 19, 2001.



View of subject property from east to west.

In total, twelve (12) samples were collected for analysis for asbestos content, three (3) samples were collected for volatile and semi-volatile hydrocarbon analysis, six (6) samples were collected for total petroleum hydrocarbon content analysis, one (1) sample was collected for pesticide and polychlorinated biphenyl (PCB) content analysis, four (4) samples were collected for leached metals analysis, and methane content was evaluated in five (5) locations. Of all of the testing performed, only the asbestos testing showed results above regulatory standards. In specific, three (3) asbestos samples contained measurable amounts of asbestos. Two (2) of these are considered highly friable and are characterized National Emission Standards for Hazardous Air Pollutants (NESHAP)

regulated asbestos containing material (RACM) requiring special abatement procedures.

2.0 INTRODUCTION

On January 2, 2002, SMA conducted a site reconnaissance of the subject property to determine sample locations. On January 3 and 4, 2002, SMA collected samples for laboratory analysis, measured methane concentrations, and thickness of soil cover from the dumpsite located on the aforementioned tract of land. Soil samples were collected for laboratory analysis of various hydrocarbon compounds, leached metals, pesticides, and/or polychlorinated biphenyl (PCBs). Bulk samples, consisting of fragments of building materials, automotive parts, and various suspect materials were collected for asbestos analysis. A site map illustrating sample locations, the landfill boundary, and adjacent property is presented as Figure 1. Appendix A contains field data sheets and Appendix B contains analytical laboratory data reports. Measurement of potential methane gas was conducted using a Rae Systems Four-Gas Meter and measurement of soil cover thickness was conducted during soil sample collection.

The vicinity map presented as Figure 2 shows the subject property location on the "Tortugas Mountain, New Mexico (1955)" United States Geological Survey 7.5 minute quadrangle map. The U. S. Department of Agriculture (USDA) Soil Survey of Dona Ana County Area, New Mexico (1980), presented as Figure 3, classifies the area of the subject property as Dumpsite (DS). The center of property is located at approximately latitude 32° 19.23' north and longitude 106° 43.65' west. The predominant soil found at the subject property consisted of tan-brown sand with some clay that was dry and unconsolidated and some gravel. A large portion of the subject property is devoid of vegetation.

Surface debris viewed from southern edge of subject property

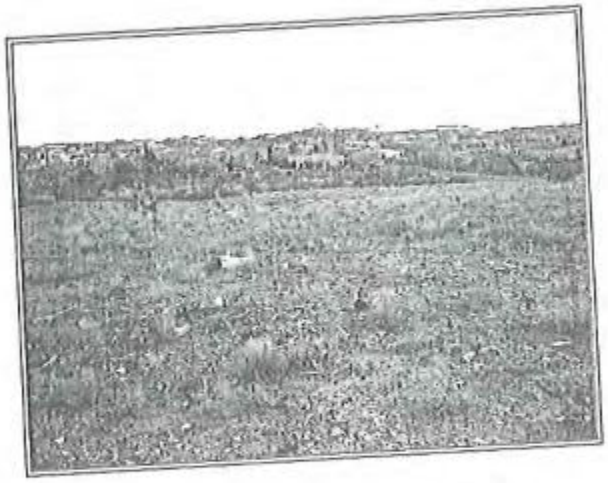
3.0 TESTING RESULTS

3.1 Bulk Sample Collection for Asbestos Analysis

SMA submitted fragments of twelve (12) samples consisting of various suspect materials collected from the subject property to Fiberquant Analytical Services for polarized light microscope analysis for asbestos by EPA Method 600/R-93/116. The samples were considered representative of all visible building materials, automotive parts, and various suspect materials contained within the subject property. Results of the twelve (12) samples analyzed for asbestos containing material (ACM) show that three (3) samples, A-1, A-6, and A-12, contain chrysotile and/or crocidolite asbestos. All three (3) samples with detectable asbestos are in excess of current Environmental Protection Agency (EPA) regulations. The remaining nine (9) samples contain no detectable asbestos. A summary of laboratory data is presented as attached Table 1. Laboratory analysis of samples A-2, Layer #2 and A-12, Layer #1 and Layer #2 are characterized as National Emission Standards for Hazardous Air Pollutants (NESHAP) regulated asbestos containing material (RACM). Analysis of sample A-6, Layer #1 is characterized as a NESHAP category II non-friable asbestos. The table below shows the sample identification and characteristics for the samples containing ACM.

Sample Number	Sample Material	Asbestos Type (% of Sample)
A-2, Layer #2	Backing, white, *highly friable*	Chrysotile (40% to 50%)
A-6, Layer #1	Cement/ASB board, gray, *non-friable*	Chrysotile (10% to 20%) and Crocidolite (2% to 5%)
A-12, Layer #1	Ply roofing/bitumen, black, *highly friable*	Chrysotile (40% to 50%)
A-12, Layer #2	Ply roofing/bitumen, black, *highly friable*	Chrysotile (40% to 50%)

Category II non-friable ACM includes any non-friable ACM that is not identified as Category I non-friable ACM. Category I non-friable ACM includes gaskets, resilient floor coverings, and asphalt roofing products. However, by NMED Air Quality Bureau interpretation of NESHAP regulation, any material or layer of a material containing greater than 1% asbestos, which may become friable during installation or removal is considered to be a regulated asbestos containing material (RACM) and will need to be treated differently than non-RACM. RACM, as defined by NMED Air Quality Bureau, includes friable ACM, NESHAP category I non-friable ACM that has become friable, and/or category II non-friable ACM that may become friable.



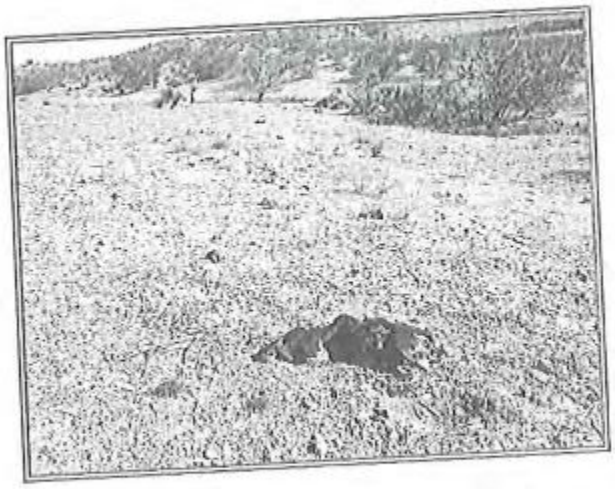
View of area with suspect ACM

View of suspect ACM

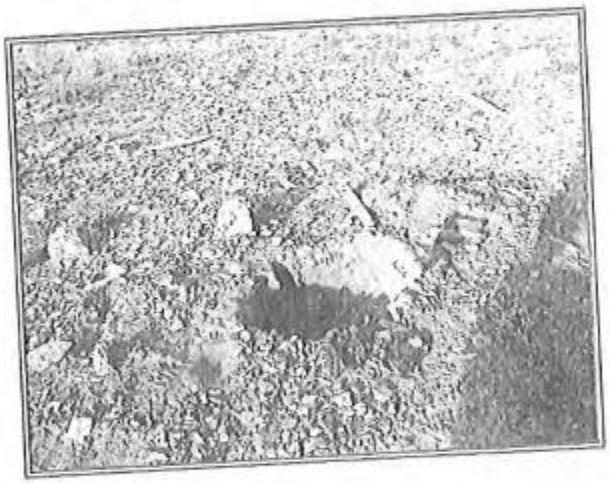
3.2 Soil Sample Collection for Hydrocarbon Analysis

SMA collected fourteen (14) soil samples for laboratory hydrocarbon analysis from the subject property. Sample locations are illustrated in Figure 1. These samples were submitted to Hall Environmental Analytical Laboratory for analysis of various hydrocarbon compounds, leached metals, pesticides, and/or PCBs by various EPA methods.

Three (3) samples (HC-1, HC-2, and HC-3) were collected for analysis of various volatile and semi-volatile hydrocarbon compounds by EPA method 8260. Sample results for HC-1, HC-2, and HC-3 revealed no detectable concentrations for hydrocarbon compounds such as benzene, naphthalene, methyl tertiary butyl ether (MTBE), tetrachloroethene (PCE), chloroform, or trichloroethene (TCE) in the samples analyzed by method 8260. Six (6) samples (WO-1, WO-2, WO-3, WO-4, WO-5, and WO-6) were collected for analysis of various organic range hydrocarbon compounds by EPA method 8015. Laboratory results of WO-1 through WO-6 revealed no detectable concentrations for gasoline range, diesel range, or motor oil range organic hydrocarbon compounds in the samples analyzed by method 8015. One sample (CP-1) was collected for analysis of potential pesticides and/or PCBs by EPA methods 8081/8082. Analytical results of CP-1 revealed no detectable concentrations of any pesticides or PCBs as analyzed by methods 8081/8082. A summary of all hydrocarbon sampling results is presented in attached Table 2.



Eastern edge of subject property



Crushed oil filters at a WO sample point

Four (4) samples (LM-1, LM-2, LM-3, and LM-4) were collected for analysis of leached metals, silver (Ag), arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), lead (Pb), selenium (Se), and mercury (Hg), associated with waste oil, batteries, and transformers by EPA methods 1311/6010/6020/7470. Analytical laboratory results revealed detectable concentrations of at least one metal in each of the four samples, however all concentrations except for arsenic are below the most stringent current EPA soil screening levels (ingestion pathway for children in a residential development as reported in EPA publication EPA-540/R-96/018). In addition, all concentrations are below applicable NMED soil screening levels published by the NMED Hazardous Waste Bureau (HWB) and Ground Water Quality Bureau (GWQB) Voluntary Remediation Program (VRP). A summary of soil sample results for LM-1 through LM-4 with EPA soil screening levels is presented as attached Table 3.

Oxidized and burned material at an LM sample point

3.3 Methane Sample Collection and Waste Cover Thickness

SMA conducted spot methane checks in five (5) locations, illustrated in Figure 1, to determine methane concentrations for the subject property. A list of methane concentrations as measured relative to lower explosive limit (LEL) from the five sample points is presented below.

Methane - Lower Explosive Limit *(%)*				
M-1	M-2	M-3	M-4	M-5
0.0	1.0	1.0	0.0	0.0

Thickness of soil cover was measured at various points of the subject property in conjunction with soil sample collection. Typically, waste was exposed at ground surface in several areas of the property, especially along the south and east boundary of the site, and average thickness of soil cover was less than one-foot. The thickness of soil cover along the north edge of the subject property however was at least three feet below ground surface. Soils across the subject property consisted of dry, unconsolidated sand with some clay and minor amounts of gravel.

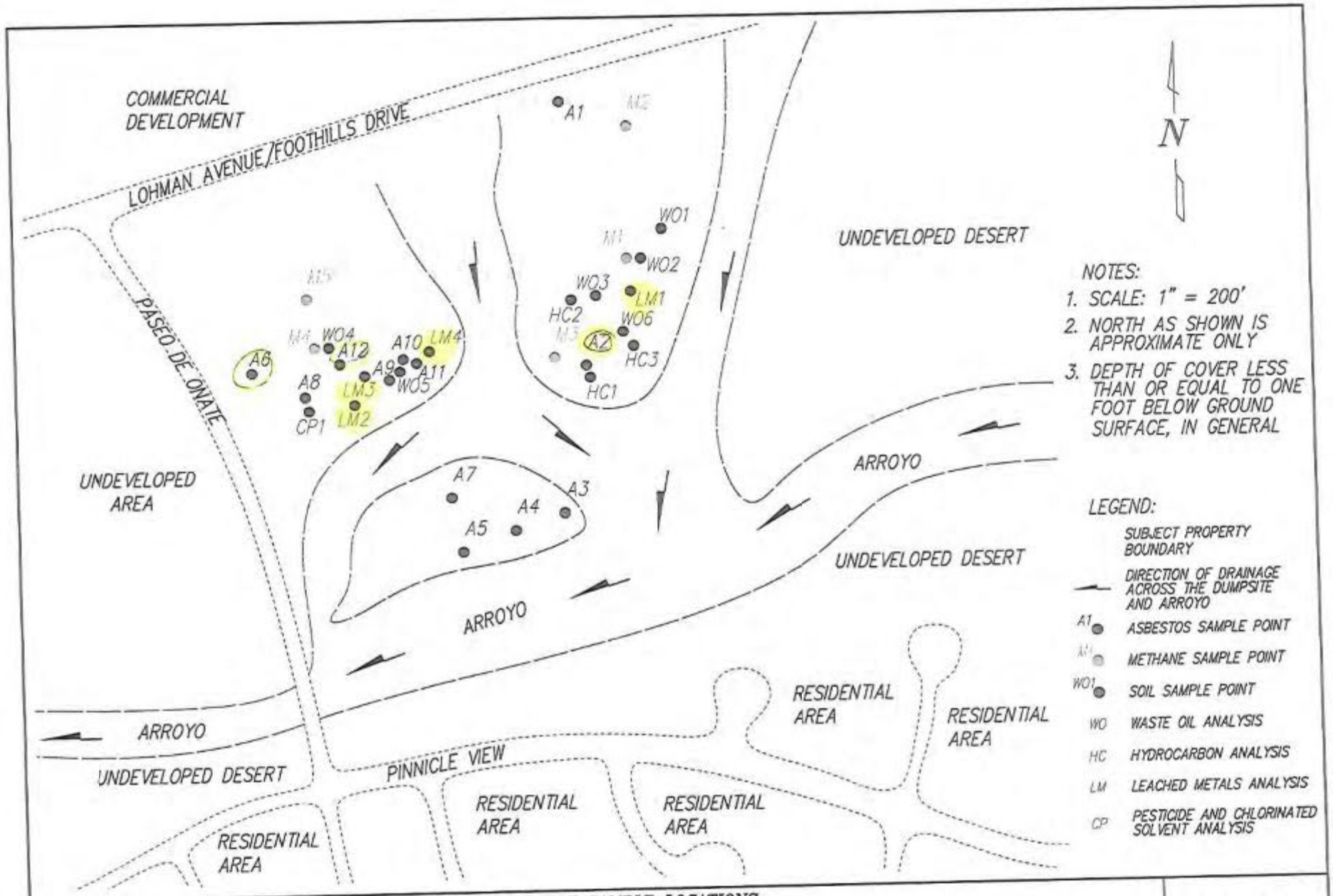
Thickness of waste was also measured during sample collection. Waste was encountered at total depth of every sample point and average total depth of the excavations was at least three feet below ground surface. As illustrated in Figure 1, waste encountered on the eastern half of the subject property consisted primarily of residential type waste and the western half of the site appeared to contain primarily commercial/industrial type waste. No medical waste was encountered during the sampling.

4.0 CONCLUSIONS

The area of the study has been used for the disposal of both residential and commercial waste. Waste is exposed in several areas and generally has cover thickness of less than one foot. No substantial methane accumulations were identified during the investigation although, given the isolated nature of the waste and cover material, pockets may exist. Evaluation of the analytical laboratory data of soil samples and asbestos samples collected from the subject property and data collected by direct measurement reveal two areas of concern.

The first area of concern is the laboratory results of samples analyzed for leached metals, which revealed detectable concentrations of metals in soil. All detectable concentrations were below EPA soil screening guidelines for metals for children in residential areas except arsenic. Although the soil screening levels used are the most conservative and the results do not likely constitute a chronic hazard for the subject property, further evaluation of background levels for arsenic (at a minimum) should be considered for this site.

The second area of concern is the verified presence of materials classified by NMED and NESHAP as RACM. In specific, samples A-2, Layer #2 and A-12, Layer #1 and Layer #2 each contain greater than 1% asbestos and each are considered RACM. Because of the verified presence of RACM, all suspect material within the subject property boundary should also be tested prior to any disturbance, or removal and final disposal at a permitted facility.



SITE MAP WITH SAMPLE LOCATIONS
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 1

131345SF1
02-21-02

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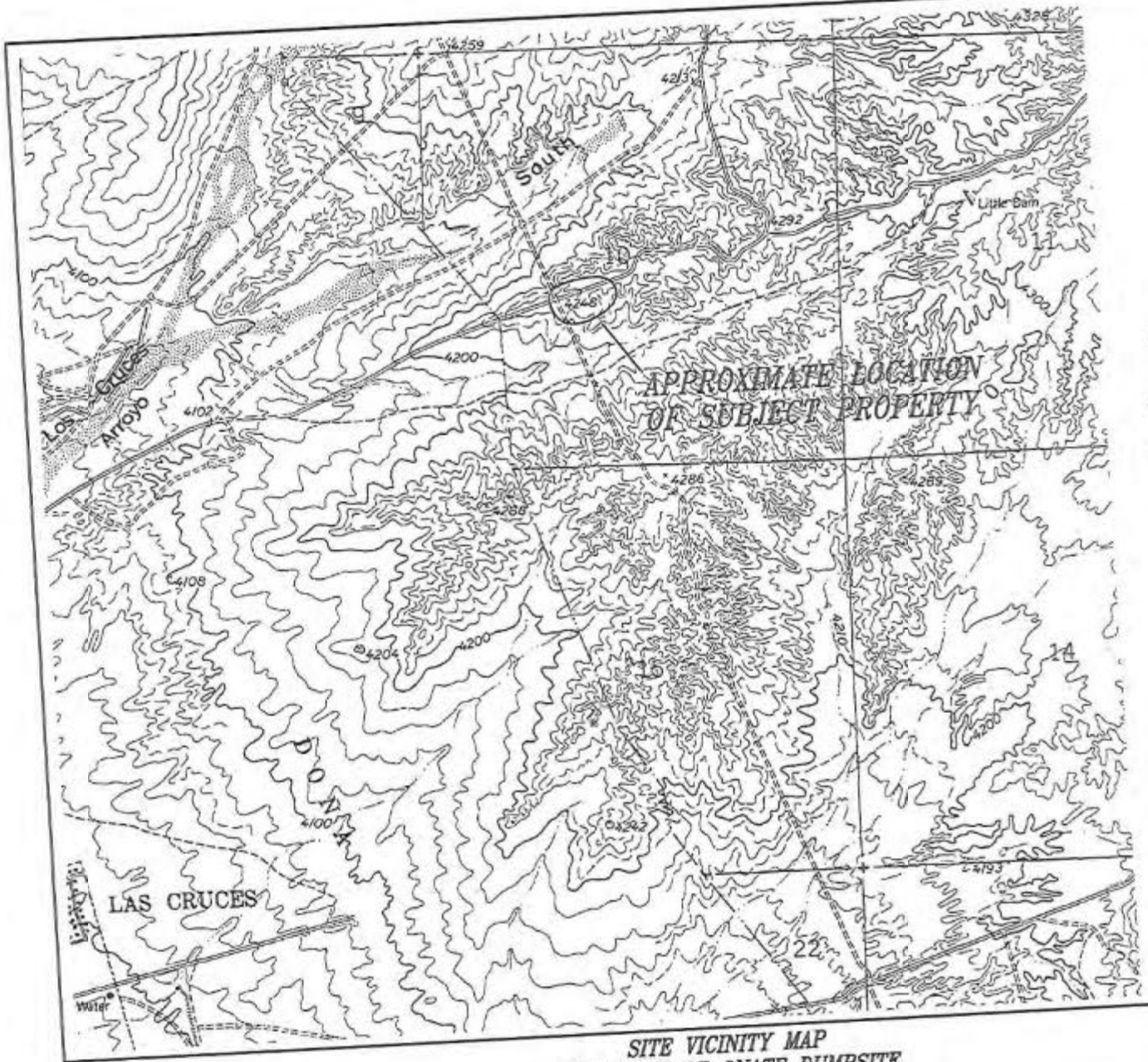

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NOTES:

1. SCALE 1" = 2,000'
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. BASE MAP IS FROM TORTUGAS MOUNTAIN, NEW MEXICO USGS 7.5 MINUTE (1955) QUADRANGLE MAP

FIGURE 2

SITE VICINITY MAP
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

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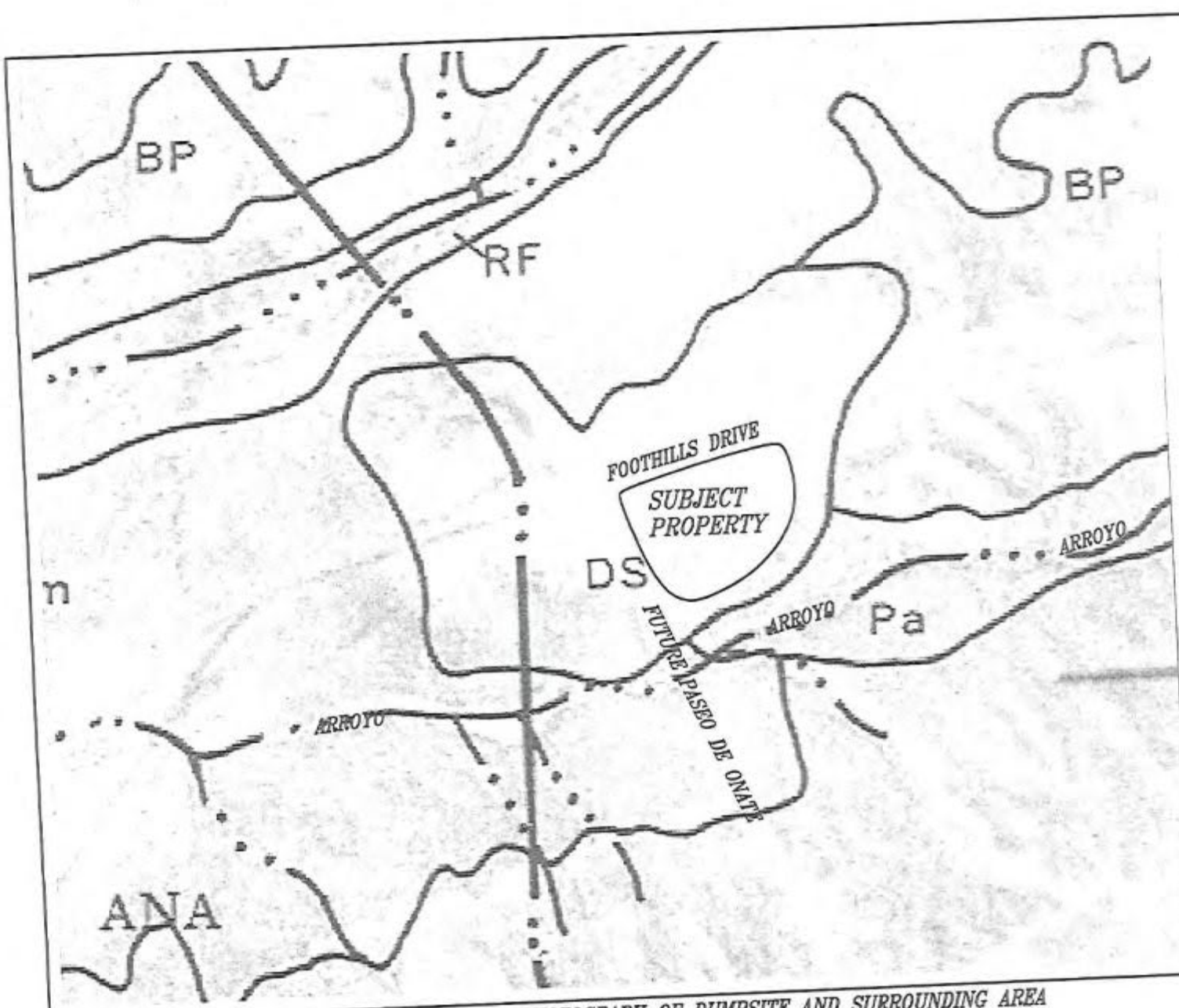

NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY USDA SOIL SURVEY OF DONA ANA COUNTY AREA, NM, 1980
4. DS = DUMPSITE BY USDA SOIL SURVEY OF DONA ANA COUNTY AREA, NM, 1980 DEFINITION

SOIL SURVEY AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 3

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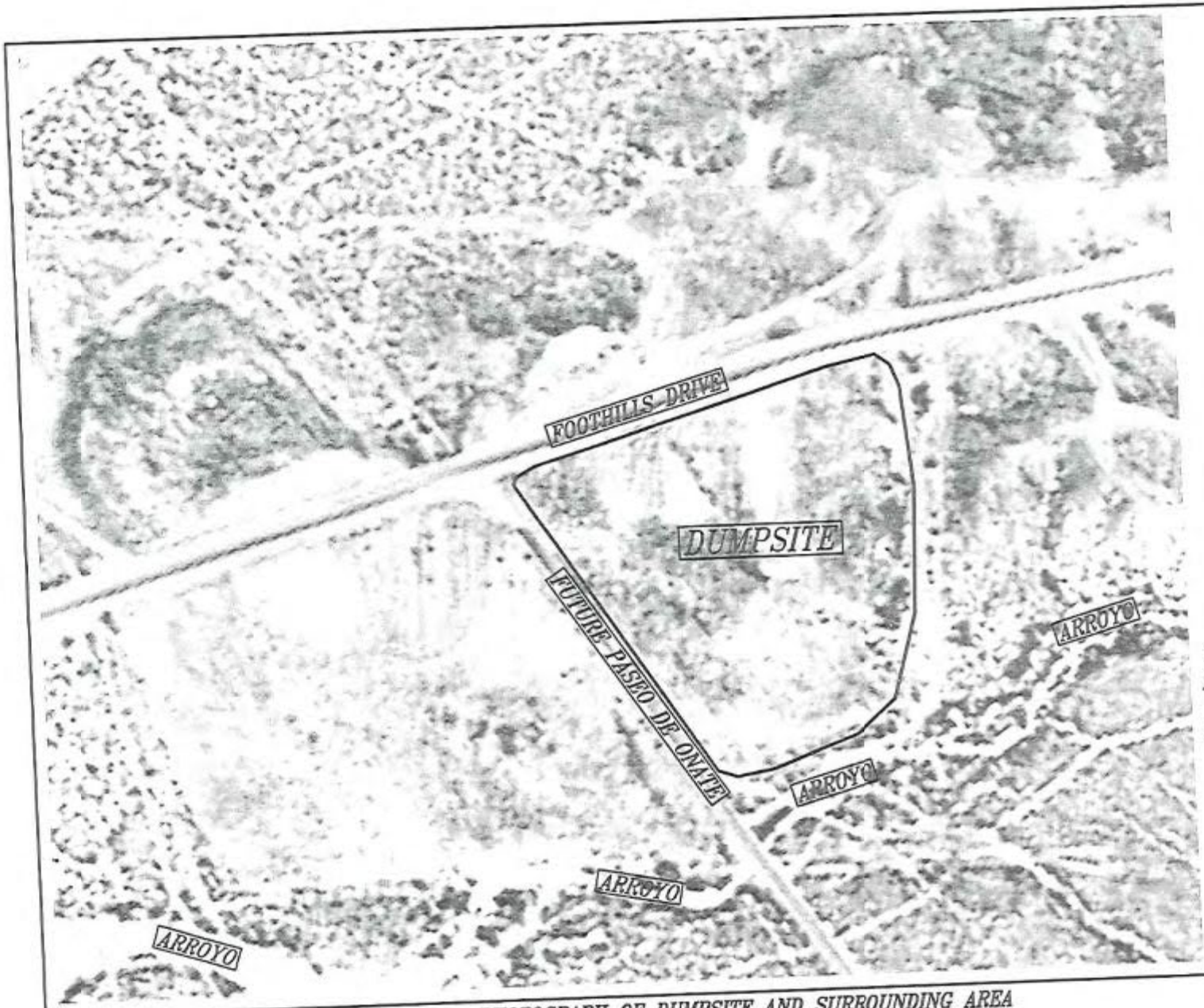

NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY NMSHTD AERIAL PHOTOGRAPHY UNIT, 1980

1980 AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 4

1313456F3
02-22-02

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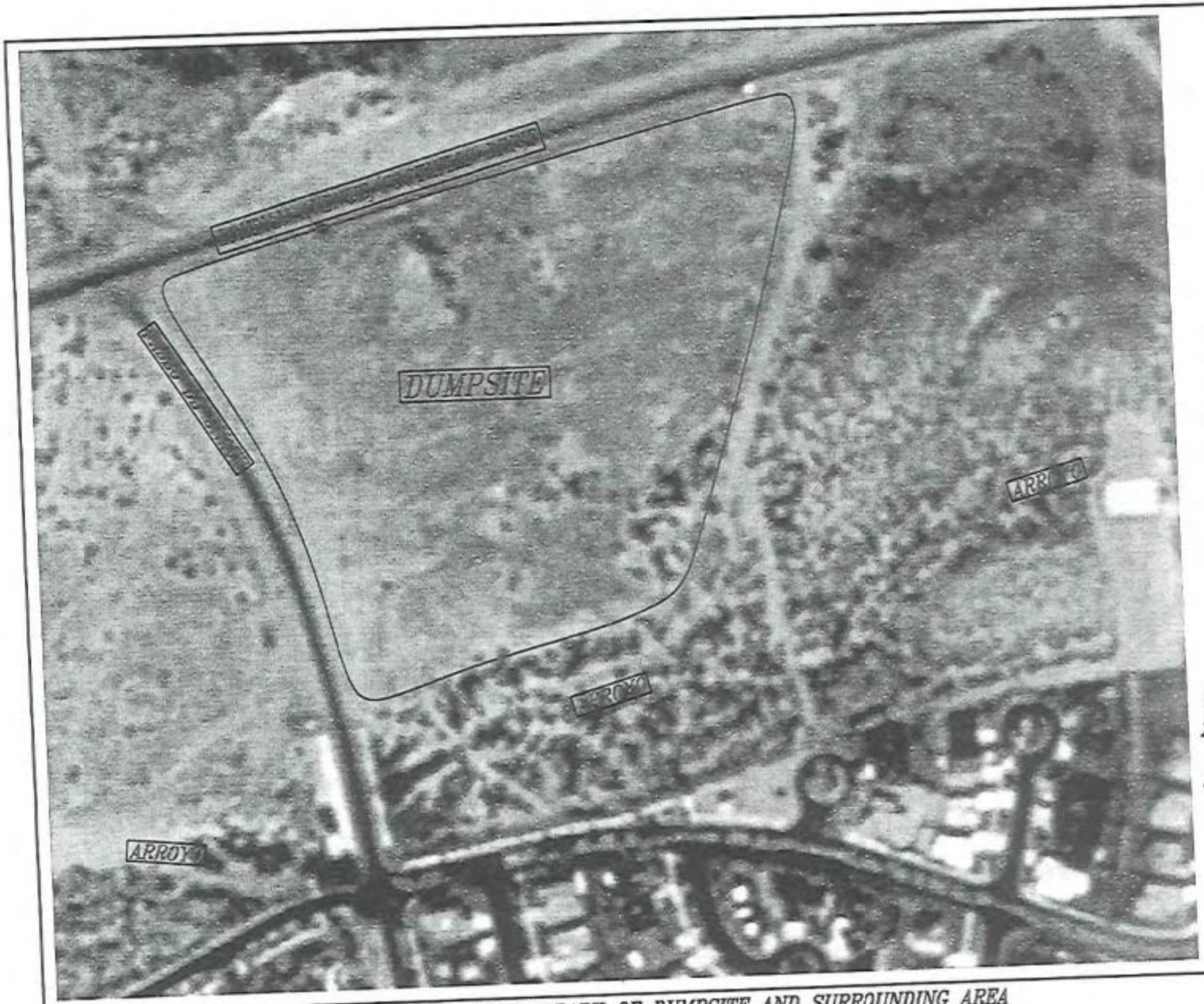

N

NOTES:

1. NOT TO SCALE
2. NORTH AS SHOWN IS APPROXIMATE ONLY
3. AERIAL PHOTOGRAPH PROVIDED BY TERRA-SERVER, 1996

1996 AERIAL PHOTOGRAPH OF DUMPSITE AND SURROUNDING AREA
CLC PASEO DE ONATE DUMPSITE
LAS CRUCES, NEW MEXICO

FIGURE 5

13134567-4
02-22-02

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Table 1
Asbestos Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Sample #	Layer #	Sample Material	Asbestos Type (percentage of sample)
A-1	1	Paint, gray, very non-friable	no asbestos detected
	2	Acoustical tile, tan, highly friable	no asbestos detected
A-2	1	Surfacing , yellow, very non-friable	no asbestos detected
	2	Backing, white, highly friable	chrysotile asbestos (40%-50%)
A-3	1	Insulation, white, highly friable	no asbestos detected
A-4	1	Insulation wrap, white, non-friable	no asbestos detected
	2	Insulation, white, highly friable	no asbestos detected
A-5	1	Roll roofing/shingle, black, highly friable	no asbestos detected
	2	Roll roofing/shingle, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Roll roofing/shingle, black, highly friable	no asbestos detected
	6	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-6	1	Cement/ASB board, gray, non-friable	chrysotile/crocidolite asbestos (10%-20% / 2%-5%)
A-7	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-8	1	Coating, black, very non-friable	no asbestos detected
	2	Insulation, orange, highly friable	no asbestos detected
A-9	1	Roll roofing/shingle, black, very non-friable	no asbestos detected
	2	Roll roofing/shingle, black very non-friable	no asbestos detected
A-10	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, very non-friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
	4	Ply roofing/bitumen, black, highly friable	no asbestos detected
	5	Ply roofing/bitumen, black, highly friable	no asbestos detected
	6	Ply roofing/bitumen, black, highly friable	no asbestos detected
	7	Ply roofing/bitumen, black, highly friable	no asbestos detected
	8	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-11	1	Ply roofing/bitumen, black, highly friable	no asbestos detected
	2	Ply roofing/bitumen, black, highly friable	no asbestos detected
	3	Ply roofing/bitumen, black, highly friable	no asbestos detected
A-12	1	Ply roofing/bitumen, black, highly friable	chrysotile asbestos (40%-50%)
	2	Ply roofing/bitumen, black, highly friable	chrysotile asbestos (40%-50%)

Table 2
Abbreviated Summary of Hydrocarbon Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Sample	CP-1	WO-1	WO-2	WO-3	WO-4	WO-5	WO-6	HC-1	HC-2	HC-3
Date	03-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02	03-Jan-02	03-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02	04-Jan-02
EPA Method	8081/8082	8015	8015	8015	8015	8015	8015	8260	8260	8260
Gasoline Range Organics		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Diesel Range Organics		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
Motor Oil Range Organics		<50	<50	<50	<50	<50	<50			
Benzene								<0.050	<0.050	<0.050
Toluene								<0.050	<0.050	<0.050
Total Xylenes								<0.050	<0.050	<0.050
Total Naphthalenes								<0.5	<0.5	<0.5
Tetrachloroethene (PCE)								<0.050	<0.050	<0.050
Trichloroethene (TCE)								<0.050	<0.050	<0.050
Total Aroclor (PCBs)	<0.110									
4,4'-DDT	<0.0020									
Chlordane	<0.10									
Toxaphene	<0.10									

Notes:
All results reported in mg/Kg
Only the most common contaminants reported in the abbreviated (summary) table, all results included in laboratory reports
All results for samples shown in this table are below laboratory/method detection limits

Table 3
Summary of Metals Sampling Results
CLC Paseo de Onate
Las Cruces, New Mexico

Date	Location	EPA Method	Analytical Results *(in mg/kg)*							
			Ag	As	Ba	Cd	Cr	Pb	Se	Hg
04-Jan-02	LM-1	6010/7471	<0.5	<1.0	130	<0.2	5.1	12.9	<1.0	<0.033
03-Jan-02	LM-2	6010/7471	<0.5	1.2	243	0.3	5.3	21.6	<1.0	<0.033
03-Jan-02	LM-3	6010/7471	<0.5	<1.0	289	0.3	9.3	163	<1.0	0.105
03-Jan-02	LM-4	6010/7471	0.5	<1.0	220	0.3	5.8	28.6	<1.0	0.045

EPA Residential Child Soil Screening Levels for Ingestion / Inhalation *(in mg/kg)**								
Pathway	Ag	As	Ba	Cd	Cr	Pb	Se	Hg
Ingestion	390	0.43	5,500	78	390	400	390	23
Inhalation	na	750	6.9×10^5	1,800	270	na	na	10

NMED Risk Based Corrective Action Residential Soil Screening Levels *(in mg/kg)***							
Ag	As	Ba	Cd	Cr	Pb	Se	Hg
380	3.9	5,200	70	2,300	400	3,800	6.1

Metals Abbreviations:
Ag = silver; As = arsenic, Ba = barium, Cd = cadmium; Cr = chromium; Pb = lead; Se = selenium, Hg = mercury

Notes:
Soil samples analyzed for elements Ag through Se used EPA method 6010.
Soil sample analyzed for element Hg used EPA method 7471.
*User's Guide, 2nd Edition, EPA Pub. 540/R-96/018, July, 1996.
**NMED Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program Technical Background Document for Development of Soil Screening Levels, Table A-1, December 18, 2000

Appendix A: Field Data Sheets

Date: 2 Jan 02

CLC Paseo de Onate Site Recon

Pt. #	Point Location/Description	N(GPS)	W (GPS)	Northing 09821	Easting 93346
1	NE Corner Pde Onate / Foothills	32° 19.259'	106° 43.731'	480832. ~~46871~~	1492498. ~~84442~~
2	NW Corner P de Onate / Foothills	32° 19.257'	106° 43.741'	480820. 20202	1492447.39557
3	SW Corner of Lot 1	32° 19.162'	106° 43.675'	480242.68614	1492784.62252
4	SE Corner of Lot 2	32° 19.162'	106° 43.687'	480242. ~~68614~~ 90172	1492722.84040
5	SE Corner of Lot 1 = A3				
6	NE Corner of Lot 1	32° 19.307'	106° 43.555'	48119.09251	1493406.34811
7	A1	32° 19.292'	106° 43.603'	481029.24379	1493158.82162
8	WO 1 - oil filter, tire	32° 19.256'	106° 43.573	480810.28383	1493312.30322
9	WO2 - oil filter, rusty containers	32° 19.249'	106° 43.579'	480767.97911	1493281.22405
10	M1 > Meth=0, CO=0, O_2=20.1	19.249'	43.583'	480768.07065	1493260.63034
11	LM1 - rusty aerosol containers, etc..	19.241'	43.582'	480719.54261	1493265.56314
12	A2	19.223'	43.595'	610.70361	198.14812
13	HC1 - Paint cans, thinner / camp stove fuel	19.220'	43.594'	592.49128	203.21568
14	A3	19.187'	43.602'	392.59074	161.13800
15	A4	19.183'	43.616'	368.65887	088.95126
16	A5	19.178'	43.631'	338.68694	011.58892
17	LM2	19.214'	43.661'	557.64825	1492858.10704
18	CP1	Pt. 214'	43.674'	557.94666	791.17705
19	A6 - Concrete piping	19.222'	43.690'	606.81928	~~1492~~ 709.01811
20	M2 > Meth=1, CO=0, O_2=20.1	19.286'	43.584'	992.42989	1493256.47924
21	WO3	19.240'	43.597'	713.70837	214.05183
22	M3 > meth=1 CO=5 O_2=21.1	19.225'	43.604'	623.03600	151.86600
23	A7	19.191'	43.634'	417.57659	1492996.49445
24	A8	19.216'	43.675'	570.09591	786.08267
25	HC2	19.231'	43.599'	707.80551	1493177.98581
26	M4 > Meth=0, CO=2, O_2=20.8	.228'	.672'	642.78476	1492801.85249
27	WO4 & depth of cover <1'	.228'	.667'	642.69294	822.44628
28	LM3 " " " "	.221'	.658'	600.62141	873.74159
29	M5 ⇒ meth=0, CO=0, O_2=20.6	.240'	.674'	715.58842	791.88007
30	A9	.220'	.651'	593.79766	909.75375
31	WO5 - depth of cover <1'	.222'	.648'	605.85512	925.25315
32	A10	.225'	.647'	624.02162	930.48264
33	A11	"	"		
34	LM4	"	"	Depth = <1', surface	
35	Depth to Cover = M5				

Date: 3 Jan 02

CLC Paseo de Onate Site Recon

Pt. #	Point Location/Description	N(GPS)	W (GPS)	Northing	Easting
✓1	A-12	32° 19.224'	106° 43.665'	480618.37150	1492837.78350
2	Depth to cover = A1	>3' loose sand			
3	Depth to cover = M2	≤1'			
✓4	WB-6 / HC-3	32° 19.235'	106° 43.588'	480683.36108	1493234.51079
5					
6					
7					
8					
9	Notes: Household waste typically in central + NE areas				
10	of LF. Construction waste typically located at				
11	edges of LF + SW area of LF. Cover ≈ 1-3 feet				
12	except along Foothills → >3'				
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
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28					
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33					
34					
35					

Appendix B: Analytical Laboratory Results

Hall Environmental
Analysis Laboratory

COVER LETTER

January 28, 2002

Larry Kemp
Souder, Miller & Associates
401 17th St. Suite 4
Las Cruces, NM 88005
TEL: (505) 647-0799
FAX (505) 471-6675

RE: CLC Paseo de Onate

Order No.: 0201021

Dear Larry Kemp:

Hall Environmental Analysis Laboratory received 14 samples on 1/8/02 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

4901 Hawkins NE, Suite A, Albuquerque, NM 87109 * 505.345-3975, Fax 505.345-4107

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-02

Client Sample ID: WO-1
Collection Date: 1/4/02 10:17:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 7:52:33 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 7:52:33 PM
Surr: DNOP	95.5	60-124		%REC	1	1/11/02 7:52:33 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 8:47:56 PM
Surr: BFB	99.9	74-118		%REC	1	1/9/02 8:47:56 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT:	Souder, Miller & Associates	**Client Sample ID:**	WO-2
Lab Order:	0201021	**Collection Date:**	1/4/02 10:20:00 AM
Project:	CLC Paseo de Onate	**Matrix:**	SOIL
Lab ID:	0201021-03		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 8:20:50 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 8:20:50 PM
Surr: DNOP	91.7	60-124		%REC	1	1/11/02 8:20:50 PM
						Analyst: NB
		SW8015				
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 9:19:30 PM
Surr: BFB	94.9	74-118		%REC	1	1/9/02 9:19:30 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT:	Souder, Miller & Associates	**Client Sample ID:**	WO-3
Lab Order:	0201021	**Collection Date:**	1/4/02 10:40:00 AM
Project:	CLC Paseo de Onate	**Matrix:**	SOIL
Lab ID:	0201021-04		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 8:49:06 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 8:49:06 PM
Surr: DNOP	92.8	60-124		%REC	1	1/11/02 8:49:06 PM
						Analyst: NB
		SW8015				
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 9:50:56 PM
Surr: BFB	93.3	74-118		%REC	1	1/9/02 9:50:56 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
*- Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-05

Client Sample ID: WO-6
Collection Date: 1/4/02 10:50:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 9:17:17 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 9:17:17 PM
Surr: DNOP	89.9	60-124		%REC	1	1/11/02 9:17:17 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 10:22:22 PM
Surr: BFB	95.2	74-118		%REC	1	1/9/02 10:22:22 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-06

Client Sample ID: HC-1
Collection Date: 1/4/02 11:20:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8260B				Analyst: BL
VOLATILES BY 8260B - DRY WEIGHT BASIS						
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.10		mg/Kg	1	1/8/02
Naphthalene	ND	0.20		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.050		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.15		mg/Kg	1	1/8/02
Methylene chloride						

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-06

Client Sample ID: HC-1
Collection Date: 1/4/02 11:20:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	104	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	105	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	96.1	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	107	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *28-Jan-02*

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-07

Client Sample ID: HC-2
Collection Date: 1/4/02 10:55:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B - DRY WEIGHT BASIS	SW8260B					Analyst: BL
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/8/02
Naphthalene	ND	0.10		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/8/02
Methylene chloride	ND	0.15		mg/Kg	1	1/8/02

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-07

Client Sample ID: HC-2
Collection Date: 1/4/02 10:55:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	102	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	103	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	92.4	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	103	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-08

Client Sample ID: HC-3
Collection Date: 1/4/02 10:50:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B - DRY WEIGHT BASIS	SW8260B					Analyst: BL
Benzene	ND	0.050		mg/Kg	1	1/8/02
Toluene	ND	0.050		mg/Kg	1	1/8/02
Ethylbenzene	ND	0.050		mg/Kg	1	1/8/02
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/8/02
1,2-Dibromoethane (EDB)	ND	0.10		mg/Kg	1	1/8/02
Naphthalene	ND	0.20		mg/Kg	1	1/8/02
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/8/02
2-Methylnaphthalene	ND	0.050		mg/Kg	1	1/8/02
Bromobenzene	ND	0.050		mg/Kg	1	1/8/02
Bromodichloromethane	ND	0.050		mg/Kg	1	1/8/02
Bromoform	ND	0.050		mg/Kg	1	1/8/02
Bromomethane	ND	0.050		mg/Kg	1	1/8/02
Carbon tetrachloride	ND	0.050		mg/Kg	1	1/8/02
Chlorobenzene	ND	0.10		mg/Kg	1	1/8/02
Chloroethane	ND	0.050		mg/Kg	1	1/8/02
Chloroform	ND	0.050		mg/Kg	1	1/8/02
Chloromethane	ND	0.050		mg/Kg	1	1/8/02
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/8/02
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
cis-1,3-Dichloropropene	ND	0.10		mg/Kg	1	1/8/02
1,2-Dibromo-3-chloropropane	ND	0.050		mg/Kg	1	1/8/02
Dibromochloromethane	ND	0.10		mg/Kg	1	1/8/02
Dibromomethane	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/8/02
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
2,2-Dichloropropane	ND	0.050		mg/Kg	1	1/8/02
1,1-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
Hexachlorobutadiene	ND	0.050		mg/Kg	1	1/8/02
Isopropylbenzene	ND	0.050		mg/Kg	1	1/8/02
4-Isopropyltoluene	ND	0.15		mg/Kg	1	1/8/02
Methylene chloride						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-08

Client Sample ID: HC-3
Collection Date: 1/4/02 10:50:00 AM
Matrix: MEOH (SOIL)

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
n-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
n-Propylbenzene	ND	0.050		mg/Kg	1	1/8/02
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
Styrene	ND	0.050		mg/Kg	1	1/8/02
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/8/02
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/8/02
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/8/02
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/8/02
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/8/02
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/8/02
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/8/02
Trichlorofluoromethane	ND	0.10		mg/Kg	1	1/8/02
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/8/02
Vinyl chloride	ND	0.050		mg/Kg	1	1/8/02
Xylenes, Total	103	65-114		%REC	1	1/8/02
Surr: 1,2-Dichloroethane-d4	103	74-122		%REC	1	1/8/02
Surr: 4-Bromofluorobenzene	92.9	65-113		%REC	1	1/8/02
Surr: Dibromofluoromethane	104	60-123		%REC	1	1/8/02
Surr: Toluene-d8						

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 04-Feb-02

CLIENT: Souder, Miller & Associates
Lab Order: 0201021
Project: CLC Paseo de Onate
Lab ID: 0201021-09

Client Sample ID: CP-1
Collection Date: 1/3/2002 4:15:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081				Analyst: IC
4,4'-DDD	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
4,4'-DDE	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
4,4'-DDT	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Aldrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
alpha-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
beta-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Chlordane	ND	0.10		mg/Kg	1	1/28/2002 2:52:03 AM
delta-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Dieldrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan I	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan II	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endosulfan sulfate	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endrin	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Endrin aldehyde	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
gamma-BHC	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Heptachlor	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Heptachlor epoxide	ND	0.0020		mg/Kg	1	1/28/2002 2:52:03 AM
Methoxychlor	ND	0.10		mg/Kg	1	1/28/2002 2:52:03 AM
Toxaphene	101	75.5-103		%REC	1	1/28/2002 2:52:03 AM
Surr: Decachlorobiphenyl	79.2	62.2-91.6		%REC	1	1/28/2002 2:52:03 AM
PCBS BY 8052		SW5030A				Analyst: IC
Aroclor 1016	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1221	ND	0.050		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1232	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1242	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1248	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1254	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Aroclor 1260	ND	0.010		mg/Kg	1	1/19/2002 9:21:37 AM
Surr: Decachlorobiphenyl	96.0	70-130		%REC	1	1/19/2002 9:21:37 AM
Surr: Tetrachloro-m-xylene	71.3	70-130		%REC	1	1/19/2002 9:21:37 AM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT:	Souder, Miller & Associates	Client Sample ID:	WO-4
Lab Order:	0201021	Collection Date:	1/3/02 3:45:00 PM
Project:	CLC Paseo de Onate	Matrix:	SOIL
Lab ID:	0201021-13		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 9:45:26 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 9:45:26 PM
Surr: DNOP	95.9	60-124		%REC	1	1/11/02 9:45:26 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 10:53:43 PM
Surr: BFB	93.5	74-118		%REC	1	1/9/02 10:53:43 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

CLIENT:	Souder, Miller & Associates	Client Sample ID:	WO-5
Lab Order:	0201021	Collection Date:	1/3/02 4:35:00 PM
Project:	CLC Paseo de Onate	Matrix:	SOIL
Lab ID:	0201021-14		

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8015				Analyst: JLS
8015B DIESEL SOIL						
Diesel Range Organics (DRO)	ND	5.0		mg/Kg	1	1/11/02 10:13:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/11/02 10:13:34 PM
Surr: DNOP	96.8	60-124		%REC	1	1/11/02 10:13:34 PM
		SW8015				Analyst: NB
GRO BY 8015B-DRY WEIGHT BASIS						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/9/02 11:25:02 PM
Surr: BFB	89.0	74-118		%REC	1	1/9/02 11:25:02 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

ANALYTICAL, INC.
overnment Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1250 ■ Fax: (208)783-0891

REPORT OF ANALYTICAL RESULTS

NT : Hall Environmental
ECT: PASEO DE ONATE

Sample Receipt: 1/09/02
Report Date: 1/18/02

SVL JOB: 100524

ID	CLIENT SAMPLE ID		Ag 6010B	As 6010B	Ba 6010B	Cd 6010B	Cr 6010B
7972	LM-1	1/04/02	<0.5mg/kg	<1.0mg/kg	130mg/kg	<0.2mg/kg	5.1mg/kg
7973	LM-2	1/03/02	<0.5mg/kg	1.2mg/kg	243mg/kg	0.3mg/kg	5.3mg/kg
7974	LM-3	1/03/02	<0.5mg/kg	<1.0mg/kg	289mg/kg	0.3mg/kg	9.3mg/kg
7975	LM-4	1/03/02	0.5mg/kg	<1.0mg/kg	220mg/kg	0.3mg/kg	5.8mg/kg

Soil Samples: As Received Basis

viewed By: Blake Johnson Date: 1/18/02

SVL ANALYTICAL, INC.
One Government Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1250 ■ Fax: (208)783-0891

REPORT OF ANALYTICAL RESULTS

CLIENT : Hall Environmental
PROJECT: PASEO DE ONATE

Sample Receipt: 1/09/02
Report Date: 1/18/02

SVL JOB: 100524

SVL ID	CLIENT SAMPLE ID		Pb 6010B	Se 6010B	Hg 7471	% Sol. 999
S287972	LM-1	1/04/02	12.9mg/kg	<1.0mg/kg	<0.033mg/kg	98.5%
S287973	LM-2	1/03/02	21.6mg/kg	<1.0mg/kg	<0.033mg/kg	98.3%
S287974	LM-3	1/03/02	163mg/kg	<1.0mg/kg	0.105mg/kg	98.4%
S287975	LM-4	1/03/02	28.6mg/kg	<1.0mg/kg	0.045mg/kg	98.3%

Soil Samples: As Received Basis

Reviewed By: Blake Johnson Date: 1/18/02

ALYTICAL, INC.

Quality Control Report

Part I Prep Blank and Laboratory Control Sample

t :Hall Environmental

SVL JOB No: 100524

Lyte	Method	Matrix	Units	Prep Blank	True	LCS	Found	LCS %R	Analysis Date
er	6010B	SOIL	mg/kg	<0.5	208		259	124.5	1/16/02
nic	6010B	SOIL	mg/kg	<1.0	170		171	100.6	1/16/02
um	6010B	SOIL	mg/kg	<0.2	151		154	102.0	1/16/02
ium	6010B	SOIL	mg/kg	<0.2	184		181	98.4	1/16/02
enium	6010B	SOIL	mg/kg	<0.6	111		110	99.1	1/16/02
	6010B	SOIL	mg/kg	<0.5	106		103	97.2	1/16/02
enium	6010B	SOIL	mg/kg	<1.0	85.7		84.9	99.1	1/16/02
cury	7471	SOIL	mg/kg	<0.033	29.6		22.7	76.7	1/18/02

ND:
= Laboratory Control Sample

LCS %R = LCS Percent Recovery

N/A = Not Applicable

SVL ANALYTICAL, INC.

Quality Control Report

Part II Duplicate and Spike Analysis

Client :Hall Environmental

SVL JOB No: 100524

Test	Method	Matrix	QC SAMPLE ID Units	QC SAMPLE ID Result	Duplicate or MSD Found		RPD%	Matrix Spike Result	Matrix Spike SPK ADD	%R	Analysis Date
Ag	6010B	SOIL	1 mg/kg	<0.5	102	M	1.9	104	100	104.0	1/16/02
As	6010B	SOIL	1 mg/kg	<1.0	116	M	2.6	119	100	119.0	1/16/02
Ba	6010B	SOIL	1 mg/kg	130	232	M	3.0	239	100	109.0	1/16/02
Cd	6010B	SOIL	1 mg/kg	<0.2	115	M	1.9	113	100	113.0	1/16/02
Cr	6010B	SOIL	1 mg/kg	5.1	120	M	0.8	121	100	115.9	1/16/02
Pb	6010B	SOIL	1 mg/kg	12.9	126	M	2.4	129	100	116.1	1/16/02
Se	6010B	SOIL	1 mg/kg	<1.0	111	M	2.7	114	100	114.0	1/16/02
Hg	7471	SOIL	1 mg/kg	<0.033	<0.033		UDL	0.210	0.167	125.7	1/18/02
% Sol.	999	SOIL	1 %	98.5	98.5		0.0	N/A	N/A	N/A	1/17/02

LEGEND:
RPD% = (|SAM - DUP|/((SAM + DUP)/2) * 100) UDL = Both SAM & DUP not detected. *Result or *Found: Interference required dilution.
RPD% = (|SPK - MSD|/((SPK + MSD)/2) * 100) M in Duplicate/MSD column indicates MSD.
SPIKE ADD column, A = Post Digest Spike; %R = Percent Recovery N/A = Not Analyzed; R > 4S = Result more than 4X the Spike Added
QC Sample 1: SVL SAM No.: 287972 Client Sample ID: LM-1

Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1401 Batch ID: 1401 Test Code: SW8015 Units: mg/Kg Analysis Date 1/10/2002 10:41:09 AM Prep Date 1/8/2002
Client ID: Run ID: FID(17A)_020110B SeqNo: 67637

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	5.0									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	102.7	0	100	0	103	60	124	0			

Sample ID MB-1399 Batch ID: 1399 Test Code: SW8015 Units: mg/Kg Analysis Date 1/10/2002 12:58:42 AM Prep Date 1/8/2002
Client ID: Run ID: PIDFID_020109A SeqNo: 67513

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	963.4	0	1000	0	96.3	74	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1405 Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date 1/28/2002 1:47:20 AM Prep Date 1/9/2002
Client ID: Run ID: ECD(17A)_020127A SeqNo: 70741

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.0020									
4,4'-DDE	ND	0.0020									
4,4'-DDT	ND	0.0020									
Aldrin	ND	0.0020									
alpha-BHC	ND	0.0020									
beta-BHC	ND	0.10									
Chlordane	ND	0.0020									
delta-BHC	ND	0.0020									
Dieldrin	ND	0.0020									
Endosulfan I	ND	0.0020									
Endosulfan II	ND	0.0020									
Endosulfan sulfate	ND	0.0020									
Endrin	ND	0.0020									
Endrin aldehyde	ND	0.0020									
gamma-BHC	ND	0.0020									
Heptachlor	ND	0.0020									
Heptachlor epoxide	ND	0.0020									
Methoxychlor	ND	0.10									
Toxaphene	96.83	0	100	0	96.8	70	130	0			
Surr: Decachlorobiphenyl	82.37	0	100	0	82.4	70	130	0			
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID MB-1406 Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 7:04:28 AM Prep Date 1/9/2002
Client ID: Run ID: ECD(17A)_020119A SeqNo: 69219

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.010									
Aroclor 1221	ND	0.050									
Aroclor 1232	ND	0.010									
Aroclor 1242	ND	0.010									
Aroclor 1248	ND	0.010									
Aroclor 1254	ND	0.010									
Aroclor 1260	94.53	0	100	0	94.5	70	130	0			
Surr: Decachlorobiphenyl	76.29	0	100	0	76.3	70	130	0			
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

1

QC SUMMARY REPORT
Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID rb Batch ID: R3147 Test Code: SW8260B Units: µg/L Analysis Date 1/9/2002 Prep Date
Client ID: Run ID: VAL_020108A SeqNo: 67251

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Methyl tert-butyl ether (MTBE)	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,2-Dichloroethane (EDC)	ND	1.0									
1,2-Dibromoethane (EDB)	ND	2.0									
Naphthalene	ND	4.0									
1-Methylnaphthalene	ND	4.0									
2-Methylnaphthalene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon Tetrachloride	ND	1.0									
Chlorobenzene	ND	2.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
cis-1,2-DCE	ND	1.0									
cis-1,3 Dichloropropene	ND	2.0									
1,2-Dibromo-3-chloropropane	ND	1.0									
Dibromochloromethane	ND	2.0									
Dibromomethane											

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

4

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

QC SUMMARY REPORT
Method Blank

1,2-Dichlorobenzene	ND	1.0	
1,3-Dichlorobenzene	ND	1.0	
1,4-Dichlorobenzene	ND	1.0	
Dichlorodifluoromethane	ND	1.0	
1,1-Dichloroethane	ND	1.0	
1,1-Dichloroethene	ND	1.0	
1,2-Dichloropropane	ND	1.0	
1,3-Dichloropropane	ND	1.0	
2,2-Dichloropropane	ND	1.0	
1,1-Dichloropropene	ND	1.0	
Hexachlorobutadiene	ND	1.0	
Isopropylbenzene	ND	1.0	
4-Isopropyltoluene	ND	1.0	
Methylene Chloride	0.534	3.0	J
n-Butylbenzene	ND	1.0	
n-Propylbenzene	ND	1.0	
sec-Butylbenzene	ND	1.0	
Styrene	ND	1.0	
tert-Butylbenzene	ND	1.0	
Tetrachloroethene (PCE)	ND	1.0	
1,1,1,2-Tetrachloroethane	ND	1.0	
1,1,2,2-Tetrachloroethane	ND	1.0	
trans-1,2-DCE	ND	1.0	
trans-1,3-Dichloropropene	ND	1.0	
Trichloroethene (TCE)	ND	1.0	
Trichlorofluoromethane	ND	1.0	
1,2,3-Trichlorobenzene	ND	1.0	
1,2,4-Trichlorobenzene	ND	1.0	
1,1,1-Trichloroethane	ND	1.0	
1,1,2-Trichloroethane	ND	2.0	
Vinyl chloride	ND	2.0	
1,2,3-Trichloropropane	ND	1.0	
Xylenes, Total			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

QC SUMMARY REPORT
Method Blank

Surr: 1,2-Dichloroethane-d4	10.97	0	10	0	110	74.6	123	0
Surr: 4-Bromofluorobenzene	10.66	0	10	0	107	85.6	117	0
Surr: Dibromofluoromethane	10.49	0	10	0	105	78.6	116	0
Surr: Toluene-d8	10.72	0	10	0	107	84.2	115	0

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: 0201021-02a Batch ID: 1399 Test Code: SW8015 Units: mg/Kg Analysis Date: 1/9/02 11:55:16 PM Prep Date: 1/8/02
Client ID: WO-1 Run ID: PIDFID_020109A SeqNo: 67611

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0	0	0	0	0	0	0	0	20	
Surr: BFB	971.7	0	1000	0	97.2	74	118	929.3	2.80	0	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: 0201021-09ADUP Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date: 1/28/02 3:24:20 AM Prep Date: 1/9/02
Client ID: CP-1 Run ID: ECD(17A)_020127A SeqNo: 70744

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.0020	0	0	0	0	0	0	0	0	
4,4'-DDE	ND	0.0020	0	0	0	0	0	0	0	0	
4,4'-DDT	ND	0.0020	0	0	0	0	0	0	0	0	
Aldrin	ND	0.0020	0	0	0	0	0	0	0	0	
alpha-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
beta-BHC	ND	0.10	0	0	0	0	0	0	0	0	
Chlordane	ND	0.0020	0	0	0	0	0	0	0	0	
delta-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
Dieldrin	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan I	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan II	ND	0.0020	0	0	0	0	0	0	0	0	
Endosulfan sulfate	ND	0.0020	0	0	0	0	0	0	0	0	
Endrin	ND	0.0020	0	0	0	0	0	0	0	0	
Endrin aldehyde	ND	0.0020	0	0	0	0	0	0	0	0	
gamma-BHC	ND	0.0020	0	0	0	0	0	0	0	0	
Heptachlor	ND	0.0020	0	0	0	0	0	0	0	0	
Heptachlor epoxide	ND	0.0020	0	0	0	0	0	0	0	0	
Methoxychlor	ND	0.10	0	0	0	0	0	0	0	0	
Toxaphene	107.2	0	100	0	107	75.5	103	101.2	5.78	0	S
Surr: Decachlorobiphenyl	90.1	0	100	0	90.1	52.2	91.6	79.21	12.9	0	
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Duplicate

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09ADUP Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 10:06:27 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69223

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1221	ND	0.050	0	0	0	0	0	0	0	0	
Aroclor 1232	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1242	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1248	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1254	ND	0.010	0	0	0	0	0	0	0	0	
Aroclor 1260	101.6	0	100	0	102	70	130	99.02	5.64	0	
Surr: Decachlorobiphenyl	79.81	0	100	0	79.8	70	130	71.32	11.2	0	
Surr: Tetrachloro-m-xylene											

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

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Date: 28-Jan-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09AMS Batch ID: 1405 Test Code: SW8081 Units: mg/Kg Analysis Date 1/28/2002 8:38:19 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020127A SeqNo: 70745

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.0307	0.0020	0.025	0	123	50	130	0			
Aldrin	0.02685	0.0020	0.025	0	107	50	130	0			
Dieldrin	0.0283	0.0020	0.025	0	113	50	130	0			
Endrin	0.0253	0.0020	0.025	0	101	50	130	0			
gamma-BHC	0.0277	0.0020	0.025	0	111	50	130	0			
Heptachlor	0.0272	0.0020	0.025	0	109	50	130	0			
Surr: Decachlorobiphenyl	102.6	0	100	0	103	50	130	0			
Surr: Tetrachloro-m-xylene	89.19	0	100	0	89.2	50	130	0			

Sample ID 0201021-09AMS Batch ID: 1406 Test Code: SW8080A Units: µg/L Analysis Date 1/19/2002 10:51:12 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69224

Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.116	0.010	0.125	0	92.8	0	0	0			S
Aroclor 1260	0.117	0.010	0.125	0	93.6	85	115	0			
Surr: Decachlorobiphenyl	98.2	0	100	0	98.2	70	130	0			
Surr: Tetrachloro-m-xylene	74.26	0	100	0	74.3	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

1

Date: 04-Feb-02

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201021-09AMS Batch ID: 1406 Test Code: SW8080A Units: mg/Kg Analysis Date 1/19/2002 10:51:12 AM Prep Date 1/9/2002
Client ID: CP-1 Run ID: ECD(17A)_020119A SeqNo: 69224

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.116	0.010	0.125	0	92.8	65	115	0			
Aroclor 1260	0.117	0.010	0.125	0	93.6	65	115	0			
Surr: Decachlorobiphenyl	98.2	0	100	0	98.2	70	130	0			
Surr: Tetrachloro-m-xylene	74.25	0	100	0	74.3	70	130	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Sample Matrix Spike

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID 0201001-01a ms Batch ID: R3147 Test Code: SW8260B Units: mg/Kg Analysis Date 1/8/2002 Prep Date
Client ID: Run ID: VAL_020108A SeqNo: 67261

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.6351	0.050	0.5404	0	118	74	119	0			
Toluene	0.5784	0.050	0.5404	0	107	73	123	0			
Chlorobenzene	0.5846	0.050	0.5404	0	108	72	123	0			
1,1-Dichloroethene	0.4931	0.050	0.5404	0	91.3	71	123	0			
Trichloroethene (TCE)	0.6224	0.050	0.5404	0	115	69	130	0			
Surr: 1,2-Dichloroethane-d4	0.2675	0	0.2702	0	99.0	65	114	0			
Surr: 4-Bromofluorobenzene	0.28	0	0.2702	0	104	74	122	0			
Surr: Dibromofluoromethane	0.2444	0	0.2702	0	90.4	65	113	0			
Surr: Toluene-d8	0.2748	0	0.2702	0	102	60	123	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 28-Jan-02

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: Souder, Miller & Associates
Work Order: 0201021
Project: CLC Paseo de Onate

Sample ID: LCS-1401	Batch ID: 1401	Test Code: SW8015	Units: mg/Kg	Analysis Date: 1/10/02 11:12:01 AM	Prep Date: 1/8/02
Client ID:		Run ID: FID(17A)_020110B		SeqNo: 67638	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	5.0	50	0	84.0	67.4	117	0			

Sample ID: LCS-1405	Batch ID: 1405	Test Code: SW8081	Units: mg/Kg	Analysis Date: 1/28/02 2:19:40 AM	Prep Date: 1/9/02
Client ID:		Run ID: ECD(17A)_020127A		SeqNo: 70742	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.03178	0.0020	0.025	0	127	70	130	0			
Aldrin	0.02615	0.0020	0.025	0	105	70	130	0			
Dieldrin	0.0285	0.0020	0.025	0	114	70	130	0			
Endrin	0.02358	0.0020	0.025	0	94.3	70	130	0			
gamma-BHC	0.0259	0.0020	0.025	0	104	70	130	0			
Heptachlor	0.02865	0.0020	0.025	0	115	70	130	0			

Sample ID: LCS-1405	Batch ID: 1406	Test Code: SW8080A	Units: µg/L	Analysis Date: 1/19/02 7:50:34 AM	Prep Date: 1/9/02
Client ID:		Run ID: ECD(17A)_020119A		SeqNo: 69220	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.1275	0.010	0.125	0	102	0	0	0			S
Aroclor 1260	0.112	0.010	0.125	0	89.6	85	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

1

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Souder, Miller & Assoc
Address: 701 17th St. Ste 4
Las Cruces NM 88005
Phone #: 505-647-0799
Fax #: 505-647-0680

Project Name: CLC Paseo de Oñate
Project #: 1313458
Project Manager: LNK
Sampler: LNK
Samples Cold?: ☒ Yes ☐ No

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: H_2O_2	Preservative: HCl	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)		Air Bubbles or Headspace (Y or N)
1/4/02	1035	Soil	LM-1	1/402			0201021-1									X							
	1017		WO-1				-2			X													
	1020		WO-2				-3			X													
	1040		WO-3				-4			X													
	1050		WO-6				-5			X													
	1120		HC-1	1/4/02			-6													X			
	1055		HC-2	1/4/02			-7													X			
↓	1050	↓	HC-3	1/4/02			-8													X			

Date: Time: Relinquished By: (Signature) [signature] Received By: (Signature) [signature] 1/8/02 0835

Remarks: Samples collected from former [illegible] area to current

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Souder, Miller & Assoc.
Address: 401 17th Street, Ste 4, Las Cruces NM 88005
Phone #: 505-647-0799
Fax #: 505-647-0680

Project Name: CLC Paseo de Onate
Project #: 1313458
Project Manager: LNK
Sampler: LNK
Samples Cold?: ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: H_2CO_3	Preservative: HCl		HEAL No.
11/3/02	1615	Soil	CP-1	1/4oz				020621-9
"	1620	"	LM-2	"				-10
"	1600	"	LM-3	"				-11
"	1635	"	LM-4	"				-12
"	1545	"	WO-4	"				-13
↓	1635	↓	WO-5	↓				-14

ANALYSIS REQUEST

Sample	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
CP-1									X	X	X	X						
LM-2									X	X	X							
LM-3									X	X	X							
LM-4																		
WO-4			X															
WO-5			X															

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	Date:	Time:
7/02	0930	Lauren N Kamp		11/8/02	0735
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)		

Remarks: Samples collected from former landfill, closed prior to current regulations

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos

JobNumber: 2002-0093

Client: SOUDER MILLER & ASSOCIATES

401 17TH ST STE 4

LAS CRUCES, NM 88005-0000

Office Phone: (505) 647-0799

FAX: (505) 647-0680

RECEIVED
FEB 11 2002

PLM analysis for asbestos in bulk smp

 # Samples: 12 PLM **Rec:** 1/8/2002 **Method:** EPA 600/R-93/116

Client Job: Paseo de Onate **PO Number:** 1319458

Routing Number:

Date Analyzed: 1/9/2002

Method and Analysis Information:

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA, NESHAP and OSHA regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber analysis and identification is the EPA Method 600/R-93/116. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, and the reported percent asbestos can only be considered the minimum that may be present. 30% is the generally acknowledged maximum amount of asbestos that manufacturers placed in floor tiles. A gravimetric TEM method should be used to obtain an accurate % of asbestos in floor tiles.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst is a degreed scientist, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Job Analysis Notes:

Report amended 2-4-02 to correct client sample number A6 (Lab number 2002-0093-12) to A7.

Job Number: 2002-0093 Paseo de Onate

PLM Analysis Summary:

Sample # A-1			2002-0093- 1	Acoustic Tile		Positive Layer? No
Layer # 1	Gray	paint	Fr= 1	*no asbestos detected*		
Layer # 2	Tan	acoustical tile	Fr= 4	*no asbestos detected*		
Sample # A-6			2002-0093- 2	Cementitious		Positive Layer? Yes
Layer # 1	Gray	cem/asb board	Fr= 2	*10-20% chrysotile asbestos*	*2-5% crocidolite asbestos*	
Sample # A-8			2002-0093- 3	Insulation		Positive Layer? No
Layer # 1	Black	coating	Fr= 1	*no asbestos detected*		
Layer # 2	Orange	insulation	Fr= 4	*no asbestos detected*		
Sample # A-9			2002-0093- 4	Roofing		Positive Layer? No
Layer # 1	Black	roofing roll/shingle	Fr= 1	*no asbestos detected*		
Layer # 2	Black	roofing roll/shingle	Fr= 1	*no asbestos detected*		
Sample # A-10			2002-0093- 5	Roofing		Positive Layer? No
Layer # 1	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply	Fr= 1	*no asbestos detected*		
Layer # 3	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 6	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 7	Black	roof ply	Fr= 4	*no asbestos detected*		
Layer # 8	Black	roof ply	Fr= 4	*no asbestos detected*		
Sample # A-11			2002-0093- 6	Roofing		Positive Layer? No
Layer # 1	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Sample # A-12			2002-0093- 7	Roofing		Positive Layer? Yes
Layer # 1	Black	roofing roll/shingle	Fr= 4	*40-50% chrysotile asbestos*		
Layer # 2	Black	roofing roll/shingle	Fr= 4	*40-50% chrysotile asbestos*		
Sample # A-2			2002-0093- 8	Flooring		Positive Layer? No
Layer # 1	Yellow	surface	Fr= 1	*no asbestos detected*		
Layer # 2	White	backing	Fr= 4	*40-50% chrysotile asbestos*		
Sample # A-3			2002-0093- 9	Insulation		Positive Layer? No
Layer # 1	White	insulation	Fr= 4	*no asbestos detected*		
Sample # A-4			2002-0093- 10	Insulation		Positive Layer? No
Layer # 1	White	insulation wrap	Fr= 2	*no asbestos detected*		
Layer # 2	White	insulation	Fr= 4	*no asbestos detected*		
Sample # A-5			2002-0093- 11	Roofing		Positive Layer? No
Layer # 1	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roofing roll/shingle	Fr= 4	*no asbestos detected*		
Layer # 6	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Sample # A-7			2002-0093- 12	Roofing		
Layer # 1	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 2	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 3	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 4	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		
Layer # 5	Black	roof ply/bitumen	Fr= 4	*no asbestos detected*		

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Fiber Colors: B=black; BL=blue; BR=brown; CL=clear; G=Green; GY=gray; OR=orange; OW=off-white; PN=pink; PU=purple; R=red; TN=tan; W=white; Y=yellow
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be + or -; Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

PLM Analysis Details — Job Number: 2002-0093 Paseo de Onate

Sample A-1 — Lab Number 2002-0093- 1 — Sampled: 1/3/2002 16:40

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Acoustic Tile — Fibrous Solid

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 5

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability
1	paint	1	Gray	1
2	acoustical tile	99	Tan	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note: Procedure: tweased apart using forceps.

Sample A-6 — Lab Number 2002-0093- 2 — Sampled: 1/3/2002 16:10

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Cementitious — Fibrous Solid

Homogeneous Yes — # Layers 1 — Pos Layer? Yes — # Sub-Samples 3

Non-Fibrous Components (in approx. decreasing order): powder, ,

Layers

#	Layer Type	%	Color	Friability
1	cem/asb board	100	Gray	2
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	10-20%	2-5%	-	-	-	-
Average %	10-20%	2-5%	-	-	-	-
Fiber Identification:	chrysotile asbes	crocidolite asbe				

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2	crocidolite asbestos	BL	C	N	Y	L	-	P
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.549
1.700	pb/r	sb/o	1.70	1.71

Sample Analytical Note: Procedure: grinding using mortar & pestle

PLM Analysis Details — Job Number: 2002-0093 Paseo de Onate

Sample A-8 — Lab Number 2002-0093- 3 — Sampled: 1/3/2002 16:10

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Insulation — Fibrous Mat

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 6

Non-Fibrous Components (in approx. decreasing order): binder, bitumen,

Layers

#	Layer Type	%	Color	Friability
1	coating	1	Black	1
2	insulation	99	Orange	4
	Total %	100		

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	glass fiber	CL	D	Y									
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample A-9 — Lab Number 2002-0093- 4 — Sampled: 1/3/2002 16:30

Analyzed By DMS 1/9/2002 — An? OK — Apparent Smp Type Roofing — Sticky

Homogeneous No — # Layers 2 — Pos Layer? No — # Sub-Samples 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	50	Black	1
2	roofing roll/shingle	50	Black	1
	Total %	100		

Percents of Each Fiber	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	20-30%	-	-	-	-	-
	20-30%	-	-	-	-	-
Average %	20-30%	-	-	-	-	-
Fiber Identification:	synthetic fiber (					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	synthetic fiber (extruded)	W	E	N	N	H	+	P					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-10 **Lab Number** 2002-0093- 5 **Sampled:** 1/3/2002 16:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 8 **Pos Layer?** No **# Sub-Samples** 24

Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability
1	roof ply	12	Black	4
2	roof ply	12	Black	1
3	roof ply	12	Black	4
4	roof ply	12	Black	4
5	roof ply	13	Black	4
6	roof ply	13	Black	4
7	roof ply	13	Black	4
8	roof ply	13	Black	4
	Total %	100	Average %	

Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-
50-60%	-	-	-	-	-

Fiber Identification: cellulose fiber

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-11 **Lab Number** 2002-0093- 6 **Sampled:** 1/3/2002 16:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 3 **Pos Layer?** No **# Sub-Samples** 9

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roof ply/bitumen	34	Black	4
2	roof ply/bitumen	33	Black	4
3	roof ply/bitumen	33	Black	4
	Total %	100	Average %	

Percents of Each Fiber

Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-
30-40%	2-5%	-	-	-	-

Fiber Identification: cellulose fiber synthetic fiber (

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2	synthetic fiber (extruded)	W	E	N	N	H	+	P
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-12 **Lab Number** 2002-0093- 7 **Sampled:** 1/3/2002 16:00

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	70	Black	4
2	roofing roll/shingle	30	Black	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	40-50%	-	-	-	-	-
	40-50%	-	-	-	-	-
Average %	40-50%	-	-	-	-	-
Fiber Identification:	chrysotile asbes					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.550

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-2 **Lab Number** 2002-0093- 8 **Sampled:** 1/4/2002 11:05

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Flooring Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** Yes **# Sub-Samples** 5

Non-Fibrous Components (in approx. decreasing order): plastic, binder,

Layers

#	Layer Type	%	Color	Friability
1	surface	30	Yellow	1
2	backing	70	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	n.d.	-	-	-	-	-
	40-50%	-	-	-	-	-
Average %	30-40%	-	-	-	-	-
Fiber Identification:	chrysotile asbes					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	pb/r	1.556	1.550

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-3 **Lab Number** 2002-0093- 9 **Sampled:** 1/4/2002 11:30

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous Yes **# Layers** 1 **Pos Layer?** No **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): binder, ,

Layers

#	Layer Type	%	Color	Friability
1	insulation	100	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	90-100%	-	-	-	-	-
Average %	90-100%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	glass fiber	CL	D	Y				
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample A-4 **Lab Number** 2002-0093- 10 **Sampled:** 1/4/2002 11:35

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Insulation Fibrous Mat

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): plastic, binder,

Layers

#	Layer Type	%	Color	Friability
1	insulation wrap	15	White	2
2	insulation	85	White	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	40-50%	-	-	-	-	-
	90-100%	-	-	-	-	-
Average %	80-90%	-	-	-	-	-
Fiber Identification:	glass fiber					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1 glass fiber	CL	D	Y				
2							
3							
4							
5							
6							

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Sample A-5 **Lab Number** 2002-0093- 11 **Sampled:** 1/4/2002 11:45

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 6 **Pos Layer?** No **# Sub-Samples** 18

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	20	Black	4
2	roofing roll/shingle	20	Black	4
3	roof ply/bitumen	15	Black	4
4	roof ply/bitumen	5	Black	4
5	roofing roll/shingle	20	Black	4
6	roof ply/bitumen	20	Black	4
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	30-40%	-	-	-	-	-
	30-40%	-	-	-	-	-
	50-60%	-	-	-	-	-
	50-60%	-	-	-	-	-
	30-40%	-	-	-	-	-
	50-60%	-	-	-	-	-
Average %	40-50%	-	-	-	-	-
Fiber Identification:	cellulose fiber					

Fibers	Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1 cellulose fiber	W	F	N	N	H	+	U
2							
3							
4							
5							
6							

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Sample pulverized - exact number of layers and sequence is unknown.

PLM Analysis Details **Job Number:** 2002-0093 Paseo de Onate

Sample A-7 **Lab Number** 2002-0093- 12 **Sampled:** 1/4/2002 11:45

Analyzed By DMS 1/9/2002 **An?** OK **Apparent Smp Type** Roofing Sticky

Homogeneous No **# Layers** 5 **Pos Layer?** No **# Sub-Samples** 15

Non-Fibrous Components (in approx. decreasing order): bitumen, ,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
2	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
3	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
4	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
5	roof ply/bitumen	20	Black	4	30-40%	-	-	-	-	-
	Total %	100		**Average %**	30-40%	-	-	-	-	-
				Fiber Identification:	cellulose fiber					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	cellulose fiber	W	F	N	N	H	+	U					
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Sample pulverized - exact number of layers and sequence unknown.

David M. Schaller

Analyst: DAVID M. SCHALLER

Printed: 04-Feb-02

Original Print Date: 09-Jan-02

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

5025 S. 33rd Street Phoenix, Arizona 85040-2816 Phone: 602-276-6139 1-800-743-2687 FAX: 602-276-4558

RED J ENVIRONMENTAL CORPORATION

. . . environmental management & waste disposal services

May 3, 2005

Mark Blakeslee
Bureau of Land Management
New Mexico State Office
1474 Rodeo Road
Santa Fe, New Mexico 87502-0115

RE: Old Las Cruces Landfill, RED J Environmental Corporation. Project Number 979, Delivery Order Number GDD042050

Dear Mr. Blakeslee:

Red J Environmental Corporation, (Red J) was requested by the Bureau of Land Management, (BLM) to conduct sampling at the Old Las Cruces Municipal Landfill. The Site is located near the intersection of Lohman Avenue and Roadrunner Parkway in Las Cruces, New Mexico.

Red J conducted the Site sampling on February 2, 2005, during this sampling event 24 soil samples were collected at depths ranging from four to twelve feet with in the zone of solid waste encountered from the previous landfill operation, four samples of suspected asbestos containing construction material were also collected. Random XRF Sampling utilizing a NITON XRF was also conducted for field screening of heavy metals, based on results of this sampling selected samples were laboratory analyzed for the 13 Priority Pollutant Metals. The area was plotted utilizing a LEICA GS 20 sub meter accuracy Global Positioning System, maps generated by this system are attached which include sample points and sample number, with corresponding GPS point. The Site had been previously capped by the City of Las Cruces; however severe to moderate erosion has taken place at the Site.

Analytical results did confirm the presence of buried asbestos at the site in sample number 979-27 (transite pipe) taken from test pit 12 (sample location number 97912 on map), and sample number 979-28 (floor tile) taken from test pit 13 (sample location number 97913 on map). Of the 24 soil samples collected all were analyzed for Organochlorine Pesticides, eight were analyzed for the 13 Priority Pollutant Metals, and three were analyzed for Polychlorinated Biphenyls (PCB). Trace amounts of DDT, DDE, PCB, and Heavy Metals were detected in numerous samples. However the levels

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Northern Arizona Office: P.O. Box A • Joseph City, Arizona 86032 • Phone: (800) 645-7009 • Fax: (928) 288-3636

detected during this sampling event are below levels of concern for the analytes detected as listed in the EPA Region 6, Human Health Medium Screening Levels publication, Risk-Based Human Health Screening Values, Revised 12/21/04.

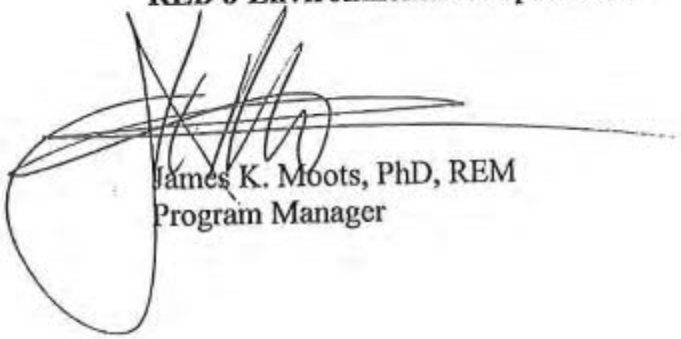
Based on the above listed information and the Laboratory Data sheets accompanying this report, the following conclusions and recommendations for this Site are presented below:

1. Prior to extensive excavation at the Site, the Laboratory Levels of the Analytes detected should be reviewed by a Toxicologist to ensure known levels of contaminates are below all standards for potential worker exposure during excavation activities.
2. The presence of buried asbestos at the Site will have to be disclosed upon sale or transfer of title to the property. Disturbance of this material should be avoided.
3. Levels of Total Lead detected in one of the samples (979-24) were above residential allowable levels (400 ppm); it is below non-residential level of 2,000 ppm. Future residential use of this property would be prohibited without extensive removal efforts.

Accompanying this report are the final Laboratory Data Sheets, Chain of Custody's, and Maps depicting the Site and sampling locations, with corresponding GPS points.

If you have any questions regarding the information given in this report please do not hesitate to contact me at (480) 220-4840.

Thank You,
RED J Environmental Corporation



James K. Moots, PhD, REM
Program Manager

Aerotech Environmental Laboratories
a division of Aerotech Laboratories, Inc.

Thursday, February 17, 2005

Jim Moots
Red J Environmental
621 South 48th Street
Suite 106
Tempe, AZ 85281

TEL: (480) 220-4840
FAX (480) 557-7376

RE: BLM Las Cruces/979

Order No.: 05020657

Dear Jim Moots:

Aerotech Environmental received 24 sample(s) on 2/4/2005 for the analyses presented in the following report.

This report includes the following information:
- Case Narrative.
- Analytical Report: includes test results, report limit (Limit), any applicable data qualifier (Qual), units, dilution factor (DF), and date analyzed.
- QC Summary Report.

Sincerely,

Cindy Bentley
Project Manager

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Date: *22-Feb-05*

Aerotech Environmental

CLIENT:	Red J Environmental	**CASE NARRATIVE**
Project:	BLM Las Cruces/979	
Lab Order:	05020657	

Samples were analyzed using methods outlined in references such as:
Standard Methods for the Examination of Water and Wastewater, 19th Edition, 1995.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised March 1983.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

40 CFR, Part 136, Revised 1995. Appendix A to Part 136 - Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater.

NIOSH Manual of Analytical Methods, Fourth Edition, 1994.

Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, 1999.

Aerotech Environmental Laboratories (AEL) holds Arizona certification no. AZ0610 and AEL-Tucson holds Arizona certification no. AZ0609.
Aerotech Laboratories, Inc. (AEL division - Laboratory ID 154268) is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation. AEL participates in the AIHA Environmental Lead Proficiency Analytical Testing (ELPAT) program for lead in soil, paint chips and dust wipes.

Analytical Comments:
All method blanks and laboratory control spikes met EPA method and/or laboratory quality control objectives for the analyses included in this report.

Data Qualifiers:
Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

- C6 Sample RPD between the primary and confirmatory analysis exceeded 40%. Per EPA Method 8000B, the higher value was reported as there were no obvious chromatographic interference.
- D1 Sample required dilution due to matrix.
- D2 Sample required dilution due to high concentration of target analyte.
- M4 The analysis of the spiked sample required a dilution such that the spike concentration was diluted below the reporting limit. The method control sample recovery was acceptable.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000.
- R9 Sample RPD exceeded the laboratory control limit.

Main Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax. 623.445.6192 www.aeroenvirolabs.
... AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

CLIENT: Red J Environmental
Project: BLM Las Cruces/979
Lab Order: 05020657

CASE NARRATIVE

D1 Method 8081
Sample required dilution due to interference from a non-target analyte.

D1 Method 8082
Sample amount (weight/volume) used for extraction/digestion was reduced due to observed indications of interferences during sample preparation (strong odor, color, evidence of petroleum products, presence of emulsions, etc.).

ain Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax. 623.445.6192 www.aeroenvirolabs.co
Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-01A

Client Sample ID: 979-1
Tag Number:
Collection Date: 2/2/2005 10:15:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDT	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/9/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/9/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/9/2005
Surr: Decachlorobiphenyl	80.0	21.4-130		%REC	10	2/9/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	10	2/9/2005
		SW6010B				Analyst: RF
ICP METALS						
Antimony	< 5.0	5.0		mg/Kg	1	2/14/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/14/2005
Beryllium	0.62	0.50		mg/Kg	1	2/14/2005
Cadmium	2.1	0.50		mg/Kg	1	2/14/2005
Chromium	18	2.0		mg/Kg	1	2/14/2005
Copper	85	5.0		mg/Kg	1	2/14/2005
Lead	150	5.0		mg/Kg	1	2/14/2005
Nickel	14	2.0		mg/Kg	1	2/14/2005
Selenium	< 10	10		mg/Kg	1	2/14/2005
Silver	2.7	2.5		mg/Kg	1	2/14/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/14/2005
Zinc	350	10		mg/Kg	1	2/14/2005
		SW7471A				Analyst: PC
MERCURY, TOTAL						
Mercury	0.20	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
(1) AEL - Tucson Laboratory
(2) AEL - Knudsen Laboratory
(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

Main Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax. 623.445.6192 www.aeroenvirolabs.
Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-02A

Client Sample ID: 979-2
Tag Number:
Collection Date: 2/2/2005 10:20:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
4,4'-DDT	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/9/2005
Endosulfan sulfate	< 0.10	0.10	D1	mg/Kg	10	2/9/2005
Methoxychlor	< 0.50	0.50	D1	mg/Kg	10	2/9/2005
Chlordane	< 1.0	1.0	D1	mg/Kg	10	2/9/2005
Toxaphene	80.0	21.4-130		%REC	10	2/9/2005
Surr: Decachlorobiphenyl	80.0	28.5-128		%REC	10	2/9/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Environmental **Analytical Report** **Date:** *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-3
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:26:00 AM
Lab ID:	05020657-03A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4´-DDE	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4´-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4´-DDT	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Surr: Decachlorobiphenyl	70.0	21.4-130		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	10	2/10/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

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(2) AEL - Knudsen Laboratory

(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

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... Ste. 110, Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental — Analytical Report — Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-4
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:35:00 AM
Lab ID:	05020657-04A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: **SC**
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Surr: Decachlorobiphenyl	80.0	21.4-130		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	10	2/10/2005
ICP METALS		**SW6010B**				Analyst: **HK**
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	< 0.50	0.50		mg/Kg	1	2/15/2005
Chromium	4.0	2.0		mg/Kg	1	2/15/2005
Copper	12	5.0		mg/Kg	1	2/15/2005
Lead	28	5.0		mg/Kg	1	2/15/2005
Nickel	4.2	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	84	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		**SW7471A**				Analyst: **PC**
Mercury	< 0.10	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-5
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:38:00 AM
Lab ID:	05020657-05A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Chlordane	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Toxaphene	80.0	21.4-130		%REC	10	2/10/2005
Surr: Decachlorobiphenyl	80.0	28.5-128		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-6
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:42:00 AM
Lab ID:	05020657-06A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	0.070	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Surr: Decachlorobiphenyl	80.0	21.4-130		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	10	2/10/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-7
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:48:00 AM
Lab ID:	05020657-07A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Chlordane	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Toxaphene	90.0	21.4-130		%REC	10	2/10/2005
Surr: Decachlorobiphenyl	90.0	28.5-128		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Main Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-08A

Client Sample ID: 979-8
Tag Number:
Collection Date: 2/2/2005 10:55:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	0.32	0.050	D2	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	0.39	0.050	D2	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Surr: Decachlorobiphenyl	80.0	21.4-130		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene	90.0	28.5-128		%REC	10	2/10/2005
		SW8082				Analyst: TB
POLYCHLORINATED BIPHENYLS (PCBS)						
Aroclor 1016	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1221	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1232	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1242	< 0.20	0.20	D1	mg/Kg	1	2/7/2005
Aroclor 1248	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1254	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1260	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Surr: Decachlorobiphenyl	60.7	11.3-120		%REC	1	2/7/2005
Surr: Tetrachloro-m-xylene	76.4	39.3-128		%REC	1	2/7/2005
		SW6010B				Analyst: HK
ICP METALS						
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	0.62	0.50		mg/Kg	1	2/15/2005
Chromium	9.6	2.0		mg/Kg	1	2/15/2005
Copper	22	5.0		mg/Kg	1	2/15/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Fax: 520.807.3803

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-8
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 10:55:00 AM
Lab ID:	05020657-08A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		**SW6010B**				Analyst: HK
Lead	130	5.0		mg/Kg	1	2/15/2005
Nickel	11	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	180	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		**SW7471A**				Analyst: PC
Mercury	< 0.10	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

(1) AEL - Tucson Laboratory

(2) AEL - Knudsen Laboratory

(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-9
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 11:20:00 AM
Lab ID:	05020657-09A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/10/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan I	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDE	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Dieldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan II	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDT	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan sulfate	< 0.010	0.010		mg/Kg	1	2/10/2005
Methoxychlor	< 0.050	0.050		mg/Kg	1	2/10/2005
Chlordane	< 0.10	0.10		mg/Kg	1	2/10/2005
Toxaphene	88.0	21.4-130		%REC	1	2/10/2005
Surr: Decachlorobiphenyl	94.0	28.5-128		%REC	1	2/10/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

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(2) AEL - Knudsen Laboratory

(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-10
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 11:30:00 AM
Lab ID:	05020657-10A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: **SC**
alpha-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
gamma-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
beta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
delta-BHC	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Aldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Heptachlor epoxide	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan I	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDE	0.13	0.050	D1	mg/Kg	10	2/10/2005
Dieldrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endrin	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDD	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan II	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
4,4'-DDT	0.12	0.050	D1	mg/Kg	10	2/10/2005
Endrin aldehyde	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	10	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	10	2/10/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	10	2/10/2005
Toxaphene	< 1.0	1.0	D1	mg/Kg	10	2/10/2005
Surr: Decachlorobiphenyl	80.0	21.4-130		%REC	10	2/10/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	10	2/10/2005

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-11
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 11:35:00 AM
Lab ID:	05020657-11A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/10/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan I	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDE	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Dieldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan II	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDT	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan sulfate	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Methoxychlor	< 0.010	0.010		mg/Kg	1	2/10/2005
Chlordane	< 0.050	0.050		mg/Kg	1	2/10/2005
Toxaphene	< 0.10	0.10		mg/Kg	1	2/10/2005
Surr: Decachlorobiphenyl	81.0	21.4-130		%REC	1	2/10/2005
Surr: Tetrachloro-m-xylene	87.0	28.5-128		%REC	1	2/10/2005

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-12A

Client Sample ID: 979-12
Tag Number:
Collection Date: 2/2/2005 11:40:00 AM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/10/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan I	0.039	0.0050		mg/Kg	1	2/10/2005
4,4'-DDE	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Dieldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan II	0.0080	0.0050		mg/Kg	1	2/10/2005
4,4'-DDT	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan sulfate	< 0.010	0.010		mg/Kg	1	2/10/2005
Methoxychlor	< 0.050	0.050		mg/Kg	1	2/15/2005
Chlordane	0.15	0.10		mg/Kg	1	2/10/2005
Toxaphene	78.0	21.4-130		%REC	1	2/10/2005
Surr: Decachlorobiphenyl	83.0	28.5-128		%REC	1	2/10/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-13
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 11:50:00 AM
Lab ID:	05020657-13A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
gamma-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
beta-BHC	0.036	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
delta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Aldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor epoxide	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan I	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDE	0.74	0.050	D2	mg/Kg	10	2/10/2005
Dieldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDD	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan II	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDT	0.32	0.010	D2	mg/Kg	2	2/10/2005
Endrin aldehyde	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan sulfate	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Methoxychlor	< 0.020	0.020	D1	mg/Kg	2	2/10/2005
Chlordane	< 0.10	0.10	D1	mg/Kg	2	2/10/2005
Toxaphene	< 0.20	0.20	D1	mg/Kg	2	2/10/2005
Surr: Decachlorobiphenyl	78.0	21.4-130		%REC	2	2/10/2005
Surr: Tetrachloro-m-xylene	80.0	28.5-128		%REC	2	2/10/2005
ICP METALS		SW6010B				Analyst: HK
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	5.6	0.50		mg/Kg	1	2/15/2005
Chromium	13	2.0		mg/Kg	1	2/15/2005
Copper	57	5.0		mg/Kg	1	2/15/2005
Lead	150	5.0		mg/Kg	1	2/15/2005
Nickel	10	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	480	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		SW7471A				Analyst: PC
Mercury	0.24	0.10		mg/Kg	1	2/14/2005

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Aerotech Environmental — Analytical Report — Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-14
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 1:52:00 PM
Lab ID:	05020657-14A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/10/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan I	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDE	0.016	0.0050		mg/Kg	1	2/10/2005
Dieldrin	0.0080	0.0050		mg/Kg	1	2/10/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan II	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDT	0.013	0.0050		mg/Kg	1	2/10/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan sulfate	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Methoxychlor	< 0.010	0.010		mg/Kg	1	2/10/2005
Chlordane	< 0.050	0.050		mg/Kg	1	2/10/2005
Toxaphene	< 0.10	0.10		mg/Kg	1	2/10/2005
Surr: Decachlorobiphenyl	65.0	21.4-130		%REC	1	2/10/2005
Surr: Tetrachloro-m-xylene	81.0	28.5-128		%REC	1	2/10/2005

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-15A

Client Sample ID: 979-15
Tag Number:
Collection Date: 2/2/2005 1:52:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	0.026	0.010	D1	mg/Kg	2	2/10/2005
gamma-BHC	0.012	0.010	D1	mg/Kg	2	2/10/2005
beta-BHC	0.22	0.010	D2	mg/Kg	2	2/10/2005
Heptachlor	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
delta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Aldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor epoxide	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan I	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDE	2.7	0.10	D2	mg/Kg	20	2/10/2005
Dieldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDD	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan II	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDT	0.36	0.10	D2	mg/Kg	20	2/10/2005
Endrin aldehyde	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan sulfate	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Methoxychlor	< 0.020	0.020	D1	mg/Kg	2	2/10/2005
Chlordane	< 0.10	0.10	D1	mg/Kg	2	2/10/2005
Toxaphene	< 0.20	0.20	D1	mg/Kg	2	2/10/2005
Surr: Decachlorobiphenyl	84.0	21.4-130		%REC	2	2/10/2005
Surr: Tetrachloro-m-xylene	90.0	28.5-128		%REC	2	2/10/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-16
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 1:56:00 PM
Lab ID:	05020657-16A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: **SC**
alpha-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
gamma-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
beta-BHC	0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
delta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Aldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor epoxide	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan I	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDE	0.11	0.010	D1	mg/Kg	2	2/10/2005
Dieldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDD	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan II	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDT	0.066	0.010	D1	mg/Kg	2	2/10/2005
Endrin aldehyde	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan sulfate	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Methoxychlor	< 0.020	0.020	D1	mg/Kg	2	2/10/2005
Chlordane	< 0.10	0.10	D1	mg/Kg	2	2/10/2005
Toxaphene	< 0.20	0.20	D1	mg/Kg	2	2/10/2005
Surr: Decachlorobiphenyl	90.0	21.4-130		%REC	2	2/10/2005
Surr: Tetrachloro-m-xylene	94.0	28.5-128		%REC	2	2/10/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-17
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 2:00:00 PM
Lab ID:	05020657-17A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: SC
alpha-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
gamma-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
beta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
delta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Aldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor epoxide	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan I	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDE	0.040	0.010	D1	mg/Kg	2	2/10/2005
Dieldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDD	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan II	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDT	0.024	0.010	D1,C6	mg/Kg	2	2/10/2005
Endrin aldehyde	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan sulfate	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Methoxychlor	< 0.020	0.020	D1	mg/Kg	2	2/10/2005
Chlordane	< 0.10	0.10	D1	mg/Kg	2	2/10/2005
Toxaphene	< 0.20	0.20	D1	mg/Kg	2	2/10/2005
Surr: Decachlorobiphenyl	98.0	21.4-130		%REC	2	2/10/2005
Surr: Tetrachloro-m-xylene	100	28.5-128		%REC	2	2/10/2005
POLYCHLORINATED BIPHENYLS (PCBS)		**SW8082**				Analyst: TB
Aroclor 1016	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1221	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1232	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1242	< 0.20	0.20	D1	mg/Kg	1	2/7/2005
Aroclor 1248	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1254	0.19	0.10	D1	mg/Kg	1	2/8/2005
Aroclor 1260	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Surr: Decachlorobiphenyl	58.7	11.3-120		%REC	1	2/7/2005
Surr: Tetrachloro-m-xylene	77.0	39.3-128		%REC	1	2/7/2005
ICP METALS		**SW6010B**				Analyst: HK
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	4.5	0.50		mg/Kg	1	2/15/2005
Chromium	12	2.0		mg/Kg	1	2/15/2005
Copper	120	5.0		mg/Kg	1	2/15/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

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Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-17
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 2:00:00 PM
Lab ID:	05020657-17A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		SW6010B				Analyst: HK
Lead	160	5.0		mg/Kg	1	2/15/2005
Nickel	16	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	3.6	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	540	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		SW7471A				Analyst: PC
Mercury	0.16	0.10		mg/Kg	1	2/14/2005

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... Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental Laboratories
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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-18A

Client Sample ID: 979-18
Tag Number:
Collection Date: 2/2/2005 2:05:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
gamma-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
beta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
delta-BHC	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Aldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Heptachlor epoxide	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan I	4.6	0.25	D2	mg/Kg	50	2/12/2005
4,4'-DDE	0.024	0.010	D1	mg/Kg	2	2/10/2005
Dieldrin	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin	0.028	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDD	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan II	0.024	0.010	D1	mg/Kg	2	2/10/2005
4,4'-DDT	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endrin aldehyde	< 0.010	0.010	D1	mg/Kg	2	2/10/2005
Endosulfan sulfate	< 0.020	0.020	D1	mg/Kg	2	2/10/2005
Methoxychlor	< 0.10	0.10	D1	mg/Kg	2	2/10/2005
Chlordane	< 0.20	0.20	D1	mg/Kg	2	2/10/2005
Toxaphene	88.0	21.4-130		%REC	2	2/10/2005
Surr: Decachlorobiphenyl	94.0	28.5-128		%REC	2	2/10/2005
Surr: Tetrachloro-m-xylene						

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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Main Laboratory: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803 Toll Free: 800.651.4802 Fax: 623.780.7695 www.aerotechlabs.com

Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-19A

Client Sample ID: 979-19
Tag Number:
Collection Date: 2/2/2005 2:11:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/10/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan I	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDE	0.012	0.0050		mg/Kg	1	2/10/2005
Dieldrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan II	< 0.0050	0.0050		mg/Kg	1	2/10/2005
4,4'-DDT	0.0090	0.0050		mg/Kg	1	2/10/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Endosulfan sulfate	< 0.0050	0.0050		mg/Kg	1	2/10/2005
Methoxychlor	< 0.010	0.010		mg/Kg	1	2/10/2005
Chlordane	< 0.050	0.050		mg/Kg	1	2/10/2005
Toxaphene	< 0.10	0.10		mg/Kg	1	2/10/2005
Surr: Decachlorobiphenyl	83.0	21.4-130		%REC	1	2/10/2005
Surr: Tetrachloro-m-xylene	87.0	28.5-128		%REC	1	2/10/2005

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Fax: 520.807.3803

Aerotech Environmental — Analytical Report — Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-20
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 2:16:00 PM
Lab ID:	05020657-20A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: **SC**
alpha-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
gamma-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
beta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
delta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Aldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor epoxide	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan I	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDE	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Dieldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDD	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan II	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDT	0.030	0.025	D1	mg/Kg	5	2/12/2005
Endrin aldehyde	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan sulfate	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Methoxychlor	< 0.050	0.050	D1	mg/Kg	5	2/12/2005
Chlordane	< 0.25	0.25	D1	mg/Kg	5	2/12/2005
Toxaphene	< 0.50	0.50	D1	mg/Kg	5	2/12/2005
Surr: Decachlorobiphenyl	95.0	21.4-130		%REC	5	2/12/2005
Surr: Tetrachloro-m-xylene	90.0	28.5-128		%REC	5	2/12/2005

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-21A

Client Sample ID: 979-21
Tag Number:
Collection Date: 2/2/2005 2:20:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW8081A				Analyst: SC
ORGANOCHLORINE PESTICIDES						
alpha-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
gamma-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
beta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
delta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Aldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor epoxide	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan I	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDE	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Dieldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDD	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan II	0.035	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDT	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin aldehyde	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan sulfate	< 0.050	0.050	D1	mg/Kg	5	2/12/2005
Methoxychlor	< 0.25	0.25	D1	mg/Kg	5	2/12/2005
Chlordane	< 0.50	0.50	D1	mg/Kg	5	2/12/2005
Toxaphene	90.0	21.4-130		%REC	5	2/12/2005
Surr: Decachlorobiphenyl	90.0	28.5-128		%REC	5	2/12/2005
		SW6010B				Analyst: HK
ICP METALS						
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	2.0	0.50		mg/Kg	1	2/15/2005
Chromium	16	2.0		mg/Kg	1	2/15/2005
Copper	120	5.0		mg/Kg	1	2/15/2005
Lead	190	5.0		mg/Kg	1	2/15/2005
Nickel	10	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	420	10		mg/Kg	1	2/15/2005
		SW7471A				Analyst: PC
MERCURY, TOTAL						
Mercury	0.12	0.10		mg/Kg	1	2/14/2005

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Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental — Analytical Report

Date: 17-Feb-05

CLIENT:	Red J Environmental	**Client Sample ID:**	979-22
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 2:35:00 PM
Lab ID:	05020657-22A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: SC
alpha-BHC	0.040	0.025	D1	mg/Kg	5	2/12/2005
gamma-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
beta-BHC	0.14	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
delta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Aldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor epoxide	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan I	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDE	0.095	0.025	D1	mg/Kg	5	2/12/2005
Dieldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDD	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan II	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDT	0.065	0.025	D1	mg/Kg	5	2/12/2005
Endrin aldehyde	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan sulfate	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Methoxychlor	< 0.050	0.050	D1	mg/Kg	5	2/12/2005
Chlordane	< 0.25	0.25	D1	mg/Kg	5	2/12/2005
Toxaphene	< 0.50	0.50	D1	mg/Kg	5	2/12/2005
Surr: Decachlorobiphenyl	75.0	21.4-130		%REC	5	2/12/2005
Surr: Tetrachloro-m-xylene	70.0	28.5-128		%REC	5	2/12/2005
ICP METALS		SW6010B				Analyst: HK
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	1.9	0.50		mg/Kg	1	2/15/2005
Chromium	9.8	2.0		mg/Kg	1	2/15/2005
Copper	27	5.0		mg/Kg	1	2/15/2005
Lead	160	5.0		mg/Kg	1	2/15/2005
Nickel	7.1	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	260	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		SW7471A				Analyst: PC
Mercury	1.3	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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... Ste. 110, Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental — Analytical Report — Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-23
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 2:40:00 PM
Lab ID:	05020657-23A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: **SC**
alpha-BHC	< 0.0050	0.0050		mg/Kg	1	2/12/2005
gamma-BHC	< 0.0050	0.0050		mg/Kg	1	2/12/2005
beta-BHC	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Heptachlor	< 0.0050	0.0050		mg/Kg	1	2/12/2005
delta-BHC	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Aldrin	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Heptachlor epoxide	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Endosulfan I	< 0.0050	0.0050		mg/Kg	1	2/12/2005
4,4'-DDE	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Dieldrin	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Endrin	< 0.0050	0.0050		mg/Kg	1	2/12/2005
4,4'-DDD	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Endosulfan II	< 0.0050	0.0050		mg/Kg	1	2/12/2005
4,4'-DDT	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Endrin aldehyde	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Endosulfan sulfate	< 0.0050	0.0050		mg/Kg	1	2/12/2005
Methoxychlor	< 0.010	0.010		mg/Kg	1	2/12/2005
Chlordane	< 0.050	0.050		mg/Kg	1	2/12/2005
Toxaphene	< 0.10	0.10		mg/Kg	1	2/12/2005
Surr: Decachlorobiphenyl	77.0	21.4-130		%REC	1	2/12/2005
Surr: Tetrachloro-m-xylene	86.0	28.5-128		%REC	1	2/12/2005
ICP METALS		**SW6010B**				Analyst: **HK**
Antimony	< 5.0	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	< 0.50	0.50		mg/Kg	1	2/15/2005
Chromium	< 2.0	2.0		mg/Kg	1	2/15/2005
Copper	< 5.0	5.0		mg/Kg	1	2/15/2005
Lead	< 5.0	5.0		mg/Kg	1	2/15/2005
Nickel	3.2	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	< 2.5	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	14	10		mg/Kg	1	2/15/2005
MERCURY, TOTAL		**SW7471A**				Analyst: **PC**
Mercury	< 0.10	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
(1) AEL - Tucson Laboratory
(2) AEL - Knudsen Laboratory

(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

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Aerotech Environmental — Analytical Report

Date: *17-Feb-05*

CLIENT:	Red J Environmental	**Client Sample ID:**	979-24
Lab Order:	05020657	**Tag Number:**	
Project:	BLM Las Cruces/979	**Collection Date:**	2/2/2005 3:30:00 PM
Lab ID:	05020657-24A	**Matrix:**	SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES		**SW8081A**				Analyst: SC
alpha-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
gamma-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
beta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
delta-BHC	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Aldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Heptachlor epoxide	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan I	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDE	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Dieldrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDD	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan II	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
4,4'-DDT	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endrin aldehyde	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Endosulfan sulfate	< 0.025	0.025	D1	mg/Kg	5	2/12/2005
Methoxychlor	< 0.050	0.050	D1	mg/Kg	5	2/12/2005
Chlordane	< 0.25	0.25	D1	mg/Kg	5	2/12/2005
Toxaphene	< 0.50	0.50	D1	mg/Kg	5	2/12/2005
Surr: Decachlorobiphenyl	90.0	21.4-130		%REC	5	2/12/2005
Surr: Tetrachloro-m-xylene	95.0	28.5-128		%REC	5	2/12/2005
POLYCHLORINATED BIPHENYLS (PCBS)		**SW8082**				Analyst: TB
Aroclor 1016	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1221	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1232	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1242	< 0.20	0.20	D1	mg/Kg	1	2/7/2005
Aroclor 1248	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1254	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Aroclor 1260	< 0.10	0.10	D1	mg/Kg	1	2/7/2005
Surr: Decachlorobiphenyl	64.8	11.3-120		%REC	1	2/7/2005
Surr: Tetrachloro-m-xylene	65.3	39.3-128		%REC	1	2/7/2005
ICP METALS		**SW6010B**				Analyst: HK
Antimony	7.4	5.0		mg/Kg	1	2/15/2005
Arsenic	< 5.0	5.0		mg/Kg	1	2/15/2005
Beryllium	< 0.50	0.50		mg/Kg	1	2/15/2005
Cadmium	16	0.50		mg/Kg	1	2/15/2005
Chromium	88	2.0		mg/Kg	1	2/15/2005
Copper	900	5.0		mg/Kg	1	2/15/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
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(2) AEL - Knudsen Laboratory
(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

tain Laboratory: 4645 E. Cotton Center Boulevard, Building 3, Suite 189 Phoenix, AZ 85040 Phone: 602.437.3340 Toll Free: 866.772.5227 Fax. 623.445.6192 www.aeroenvirolabs.c
Phone: 520.807.3801 Fax: 520.807.3803

Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Environmental — Analytical Report — Date: *17-Feb-05*

CLIENT: Red J Environmental
Lab Order: 05020657
Project: BLM Las Cruces/979
Lab ID: 05020657-24A

Client Sample ID: 979-24
Tag Number:
Collection Date: 2/2/2005 3:30:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
		SW6010B				Analyst: HK
ICP METALS						
Lead	1700	5.0		mg/Kg	1	2/15/2005
Nickel	47	2.0		mg/Kg	1	2/15/2005
Selenium	< 10	10		mg/Kg	1	2/15/2005
Silver	13	2.5		mg/Kg	1	2/15/2005
Thallium	< 5.0	5.0		mg/Kg	1	2/15/2005
Zinc	2700	400	D2	mg/Kg	40	2/17/2005
		SW7471A				Analyst: PC
MERCURY, TOTAL						
Mercury	< 0.10	0.10		mg/Kg	1	2/14/2005

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.
(1) AEL - Tucson Laboratory
(2) AEL - Knudsen Laboratory
(3) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

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Fax: 520.807.3803

Aerotech Environmental

Date: *17-Feb-05*

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_S

Sample ID MB-20557	SampType: MBLK	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID:	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676119

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	< 5.0	5.0									
Arsenic	< 5.0	5.0									
Beryllium	< 0.50	0.50									
Cadmium	< 0.50	0.50									
Chromium	< 2.0	2.0									
Copper	< 5.0	5.0									
Lead	< 5.0	5.0									
Nickel	< 2.0	2.0									
Selenium	< 10	10									
Silver	< 2.5	2.5									
Thallium	< 5.0	5.0									
Zinc	< 10	10									

Sample ID LCS-20557	SampType: LCS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID:	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676120

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	25.80	5.0	25	0	103	80	120				
Arsenic	25.60	5.0	25	0	102	80	120				
Beryllium	25.80	0.50	25	0	103	80	120				
Cadmium	24.90	0.50	25	0	99.6	80	120				
Chromium	24.95	2.0	25	0	99.8	80	120				
Copper	24.95	5.0	25	0	99.8	80	120				
Lead	25.20	5.0	25	0	101	80	120				
Nickel	24.85	2.0	25	0	99.4	80	120				
Selenium	25.75	10	25	0	103	80	120				
Silver	24.95	2.5	25	0	99.8	80	120				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

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Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 6010B_S

Sample ID LCS-20557	SampType: LCS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID:	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676120

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	22.35	5.0	25	0	89.4	80	120				
Zinc	25.35	10	25	0	101	80	120				

Sample ID LCSD-20557	SampType: LCSD	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID:	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676125

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	25.50	5.0	25	0	102	80	120	25.80	1.17	20	
Arsenic	25.60	5.0	25	0	102	80	120	25.60	0	20	
Beryllium	25.85	0.50	25	0	103	80	120	25.80	0.194	20	
Cadmium	25.20	0.50	25	0	101	80	120	24.90	1.20	20	
Chromium	24.80	2.0	25	0	99.2	80	120	24.95	0.603	20	
Copper	25.10	5.0	25	0	100	80	120	24.95	0.599	20	
Lead	25.25	5.0	25	0	101	80	120	25.20	0.198	20	
Nickel	24.90	2.0	25	0	99.6	80	120	24.85	0.201	20	
Selenium	26.30	10	25	0	105	80	120	25.75	2.11	20	
Silver	24.85	2.5	25	0	99.4	80	120	24.95	0.402	20	
Thallium	24.15	5.0	25	0	96.6	80	120	22.35	7.74	20	
Zinc	25.40	10	25	0	102	80	120	25.35	0.197	20	

Sample ID 05020657-01AMS	SampType: MS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID: 979-1	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676122

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	8.200	5.0	25	0	32.8	75	125				M7
Arsenic	8.300	5.0	25	0	33.2	75	125				M7
Beryllium	22.75	0.50	25	0.6250	88.5	75	125				
Cadmium	22.85	0.50	25	2.095	83.0	75	125				
Chromium	43.10	2.0	25	18.20	99.6	75	125				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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■ Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 6010B_S

Sample ID 05020657-01AMS	SampType: MS	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID: 979-1	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676122

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	109.5	5.0	25	85.00	98.0	75	125				M7
Lead	171.5	5.0	25	153.5	72.0	75	125				
Nickel	34.60	2.0	25	13.80	83.2	75	125				
Selenium	19.10	10	25	0	76.4	75	125				
Silver	24.50	2.5	25	2.665	87.3	75	125				M7
Thallium	11.35	5.0	25	0	45.4	75	125				
Zinc	372.0	10	25	347.5	98.0	75	125				

Sample ID 05020657-01AMSD	SampType: MSD	TestCode: 6010B_S	Units: mg/Kg	Prep Date: 2/10/2005	RunNo: 56628
Client ID: 979-1	Batch ID: 20557	TestNo: SW6010B		Analysis Date: 2/14/2005	SeqNo: 676123

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	7.750	5.0	25	0	31.0	75	125	8.200	5.64	20	M7
Arsenic	8.350	5.0	25	0	33.4	75	125	8.300	0.601	20	M7
Beryllium	22.75	0.50	25	0.6250	88.5	75	125	22.75	0	20	
Cadmium	22.90	0.50	25	2.095	83.2	75	125	22.85	0.219	20	
Chromium	44.25	2.0	25	18.20	104	75	125	43.10	2.63	20	
Copper	112.5	5.0	25	85.00	110	75	125	109.5	2.70	20	
Lead	176.0	5.0	25	153.5	90.0	75	125	171.5	2.59	20	
Nickel	34.85	2.0	25	13.80	84.2	75	125	34.60	0.720	20	
Selenium	19.20	10	25	0	76.8	75	125	19.10	0.522	20	
Silver	24.65	2.5	25	2.665	87.9	75	125	24.50	0.610	20	
Thallium	8.350	5.0	25	0	33.4	75	125	11.35	30.5	20	M7,R9
Zinc	378.5	10	25	347.5	124	75	125	372.0	1.73	20	

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 7471A_S

Sample ID	SampType	TestCode	Units	Prep Date	RunNo
MB-20541	MBLK	7471A_S	mg/Kg	2/11/2005	56620
Client ID:	Batch ID: 20541	TestNo: SW7471A		Analysis Date: 2/14/2005	SeqNo: 675969

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	< 0.10	0.10									

Sample ID	SampType	TestCode	Units	Prep Date	RunNo
LCS-20541	LCS	7471A_S	mg/Kg	2/11/2005	56620
Client ID:	Batch ID: 20541	TestNo: SW7471A		Analysis Date: 2/14/2005	SeqNo: 675970

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.608	0.10	1.668	0	96.4	85	115				

Sample ID	SampType	TestCode	Units	Prep Date	RunNo
LCSD-20541	LCSD	7471A_S	mg/Kg	2/11/2005	56620
Client ID:	Batch ID: 20541	TestNo: SW7471A		Analysis Date: 2/14/2005	SeqNo: 675971

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.608	0.10	1.668	0	96.4	85	115	1.608	0	20	

Sample ID	SampType	TestCode	Units	Prep Date	RunNo
05020657-01AMS	MS	7471A_S	mg/Kg	2/11/2005	56620
Client ID: 979-1	Batch ID: 20541	TestNo: SW7471A		Analysis Date: 2/14/2005	SeqNo: 675973

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.833	0.10	1.668	0.1950	98.2	85	115				

Sample ID	SampType	TestCode	Units	Prep Date	RunNo
05020657-01AMSD	MSD	7471A_S	mg/Kg	2/11/2005	56620
Client ID: 979-1	Batch ID: 20541	TestNo: SW7471A		Analysis Date: 2/14/2005	SeqNo: 675974

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.933	0.10	1.668	0.1950	104	85	115	1.833	5.31	20	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 8081_S

Sample ID MB-20516	SampType: MBLK	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID:	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675086

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	< 0.0050	0.0050									
4,4'-DDE	< 0.0050	0.0050									
4,4'-DDT	< 0.0050	0.0050									
Aldrin	< 0.0050	0.0050									
alpha-BHC	< 0.0050	0.0050									
beta-BHC	< 0.0050	0.0050									
Chlordane	< 0.050	0.050									
delta-BHC	< 0.0050	0.0050									
Dieldrin	< 0.0050	0.0050									
Endosulfan I	< 0.0050	0.0050									
Endosulfan II	< 0.0050	0.0050									
Endosulfan sulfate	< 0.0050	0.0050									
Endrin	< 0.0050	0.0050									
Endrin aldehyde	< 0.0050	0.0050									
gamma-BHC	< 0.0050	0.0050									
Heptachlor	< 0.0050	0.0050									
Heptachlor epoxide	< 0.0050	0.0050									
Methoxychlor	< 0.010	0.010									
Toxaphene	< 0.10	0.10									
Surr: Decachlorobiphenyl	0.09000	0	0.1	0	90.0	51.7	125				
Surr: Tetrachloro-m-xylene	0.09500	0	0.1	0	95.0	62.6	122				

Sample ID MB-20517	SampType: MBLK	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID:	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676249

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	< 0.0050	0.0050									
4,4'-DDE	< 0.0050	0.0050									
4,4'-DDT	< 0.0050	0.0050									

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 8081_S

Sample ID MB-20517	SampType: MBLK	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID:	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676249

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	< 0.0050	0.0050									
alpha-BHC	< 0.0050	0.0050									
beta-BHC	< 0.0050	0.0050									
Chlordane	< 0.050	0.050									
delta-BHC	< 0.0050	0.0050									
Dieldrin	< 0.0050	0.0050									
Endosulfan I	< 0.0050	0.0050									
Endosulfan II	< 0.0050	0.0050									
Endosulfan sulfate	< 0.0050	0.0050									
Endrin	< 0.0050	0.0050									
Endrin aldehyde	< 0.0050	0.0050									
gamma-BHC	< 0.0050	0.0050									
Heptachlor	< 0.0050	0.0050									
Heptachlor epoxide	< 0.0050	0.0050									
Methoxychlor	< 0.010	0.010									
Toxaphene	< 0.10	0.10									
Surr: Decachlorobiphenyl	0.09000	0	0.1	0	90.0	51.7	125				
Surr: Tetrachloro-m-xylene	0.09200	0	0.1	0	92.0	62.6	122				

Sample ID LCS-20516	SampType: LCS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID:	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675087

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.09300	0.0050	0.1	0	93.0	67.5	103				
4,4'-DDE	0.09300	0.0050	0.1	0	93.0	67	105				
4,4'-DDT	0.08800	0.0050	0.1	0	88.0	65.9	105				
Aldrin	0.09400	0.0050	0.1	0	94.0	67.3	104				
alpha-BHC	0.09400	0.0050	0.1	0	94.0	68.8	101				
beta-BHC	0.09300	0.0050	0.1	0	93.0	69.9	103				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID LCS-20516	SampType: LCS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID:	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675087

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
delta-BHC	0.09600	0.0050	0.1	0	96.0	66	103				
Dieldrin	0.09300	0.0050	0.1	0	93.0	67.6	103				
Endosulfan I	0.09300	0.0050	0.1	0	93.0	68.9	103				
Endosulfan II	0.09200	0.0050	0.1	0	92.0	68.7	104				
Endosulfan sulfate	0.09300	0.0050	0.1	0	93.0	68.6	103				
Endrin	0.09200	0.0050	0.1	0	92.0	67.8	103				
Endrin aldehyde	0.09700	0.0050	0.1	0	97.0	65.9	105				
gamma-BHC	0.09400	0.0050	0.1	0	94.0	67.6	104				
Heptachlor	0.09400	0.0050	0.1	0	94.0	67.4	103				
Heptachlor epoxide	0.09300	0.0050	0.1	0	93.0	69.2	103				
Methoxychlor	0.09000	0.010	0.1	0	90.0	68.4	105				
Surr: Decachlorobiphenyl	0.09300	0	0.1	0	93.0	59	116				
Surr: Tetrachloro-m-xylene	0.09700	0	0.1	0	97.0	73.4	108				

Sample ID LCS-20517	SampType: LCS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID:	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.09000	0.0050	0.1	0	90.0	67.5	103				
4,4'-DDE	0.09100	0.0050	0.1	0	91.0	67	105				
4,4'-DDT	0.08800	0.0050	0.1	0	88.0	65.9	105				
Aldrin	0.09100	0.0050	0.1	0	91.0	67.3	104				
alpha-BHC	0.09000	0.0050	0.1	0	90.0	68.8	101				
beta-BHC	0.09100	0.0050	0.1	0	91.0	69.9	103				
delta-BHC	0.09100	0.0050	0.1	0	91.0	66	103				
Dieldrin	0.09000	0.0050	0.1	0	90.0	67.6	103				
Endosulfan I	0.09100	0.0050	0.1	0	91.0	68.9	103				
Endosulfan II	0.09000	0.0050	0.1	0	90.0	68.7	104				
Endosulfan sulfate	0.09100	0.0050	0.1	0	91.0	68.6	103				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

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ANALYTICAL QC SUMMARY REPORT

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

TestCode: 8081_S

Sample ID LCS-20517	SampType: LCS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID:	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676250

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endrin	0.08900	0.0050	0.1	0	89.0	67.8	103				
Endrin aldehyde	0.09500	0.0050	0.1	0	95.0	65.9	105				
gamma-BHC	0.09100	0.0050	0.1	0	91.0	67.6	104				
Heptachlor	0.09100	0.0050	0.1	0	91.0	67.4	103				
Heptachlor epoxide	0.09100	0.0050	0.1	0	91.0	69.2	103				
Methoxychlor	0.08900	0.010	0.1	0	89.0	68.4	105				
Surr: Decachlorobiphenyl	0.09400	0	0.1	0	94.0	59	116				
Surr: Tetrachloro-m-xylene	0.09600	0	0.1	0	96.0	73.4	108				

Sample ID LCSD-20516	SampType: LCSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID:	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675109

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.07200	0.0050	0.1	0	72.0	67.5	103	0.09300	25.5	35	
4,4'-DDE	0.07200	0.0050	0.1	0	72.0	67	105	0.09300	25.5	35	
4,4'-DDT	0.06800	0.0050	0.1	0	68.0	65.9	105	0.08800	25.6	35	
Aldrin	0.07300	0.0050	0.1	0	73.0	67.3	104	0.09400	25.1	35	
alpha-BHC	0.07200	0.0050	0.1	0	72.0	68.8	101	0.09400	26.5	35	
beta-BHC	0.07300	0.0050	0.1	0	73.0	69.9	103	0.09300	24.1	35	
delta-BHC	0.07300	0.0050	0.1	0	73.0	66	103	0.09600	27.2	35	
Dieldrin	0.07200	0.0050	0.1	0	72.0	67.6	103	0.09300	25.5	35	
Endosulfan I	0.07200	0.0050	0.1	0	72.0	68.9	103	0.09300	25.5	35	
Endosulfan II	0.07200	0.0050	0.1	0	72.0	68.7	104	0.09200	24.4	35	
Endosulfan sulfate	0.07100	0.0050	0.1	0	71.0	68.6	103	0.09300	26.8	35	
Endrin	0.07100	0.0050	0.1	0	71.0	67.8	103	0.09200	25.8	35	
Endrin aldehyde	0.07300	0.0050	0.1	0	73.0	65.9	105	0.09700	28.2	35	
gamma-BHC	0.07300	0.0050	0.1	0	73.0	67.6	104	0.09400	25.1	35	
Heptachlor	0.07200	0.0050	0.1	0	72.0	67.4	103	0.09400	26.5	35	
Heptachlor epoxide	0.07300	0.0050	0.1	0	73.0	69.2	103	0.09300	24.1	35	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID LCSD-20516	SampType: LCSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID:	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675109

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methoxychlor	0.07000	0.010	0.1	0	70.0	68.4	105	0.09000	25.0	35	
Surr: Decachlorobiphenyl	0.07300	0	0.1	0	73.0	59	116	0.09300	0	0	
Surr: Tetrachloro-m-xylene	0.07500	0	0.1	0	75.0	73.4	108	0.09700	0	0	

Sample ID LCSD-20517	SampType: LCSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID:	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676267

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.08800	0.0050	0.1	0	88.0	67.5	103	0.09000	2.25	35	
4,4'-DDE	0.08800	0.0050	0.1	0	88.0	67	105	0.09100	3.35	35	
4,4'-DDT	0.08600	0.0050	0.1	0	86.0	65.9	105	0.08800	2.30	35	
Aldrin	0.08900	0.0050	0.1	0	89.0	67.3	104	0.09100	2.22	35	
alpha-BHC	0.08900	0.0050	0.1	0	89.0	68.8	101	0.09000	1.12	35	
beta-BHC	0.08900	0.0050	0.1	0	89.0	69.9	103	0.09100	2.22	35	
delta-BHC	0.09100	0.0050	0.1	0	91.0	66	103	0.09100	0	35	
Dieldrin	0.08800	0.0050	0.1	0	88.0	67.6	103	0.09000	2.25	35	
Endosulfan I	0.08800	0.0050	0.1	0	88.0	68.9	103	0.09100	3.35	35	
Endosulfan II	0.09000	0.0050	0.1	0	90.0	68.7	104	0.09000	2.25	35	
Endosulfan sulfate	0.08700	0.0050	0.1	0	87.0	68.6	103	0.09100	1.10	35	
Endrin	0.09400	0.0050	0.1	0	94.0	67.8	103	0.08900	2.27	35	
Endrin aldehyde	0.08900	0.0050	0.1	0	89.0	65.9	105	0.09500	1.06	35	
gamma-BHC	0.08800	0.0050	0.1	0	88.0	67.6	104	0.09100	2.22	35	
Heptachlor	0.08800	0.0050	0.1	0	88.0	67.4	103	0.09100	3.35	35	
Heptachlor epoxide	0.08600	0.0050	0.1	0	86.0	69.2	103	0.09100	3.35	35	
Methoxychlor	0.09100	0.010	0.1	0	91.0	68.4	105	0.08900	3.43	35	
Surr: Decachlorobiphenyl	0.09300	0	0.1	0	93.0	59	116	0.09400	0	0	
Surr: Tetrachloro-m-xylene						73.4	108	0.09600	0	0	

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID 05020657-01A MS	SampType: MS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID: 979-1	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675089

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.1000	0.050	0.1	0	100	31.4	140				
4,4'-DDE	0.1400	0.050	0.1	0	140	11.5	150				
4,4'-DDT	0.1100	0.050	0.1	0	110	28.4	143				
Aldrin	0.09000	0.050	0.1	0	90.0	33.5	128				
alpha-BHC	0.09000	0.050	0.1	0	90.0	35.5	124				
beta-BHC	0.1000	0.050	0.1	0	100	32.5	131				
delta-BHC	0.09000	0.050	0.1	0	90.0	33.4	133				
Dieldrin	0.09000	0.050	0.1	0	90.0	30.9	140				
Endosulfan I	0.09000	0.050	0.1	0	90.0	32.9	132				
Endosulfan II	0.09000	0.050	0.1	0	90.0	30.4	148				
Endosulfan sulfate	0.09000	0.050	0.1	0	90.0	27.4	158				
Endrin	0.09000	0.050	0.1	0	90.0	30.8	142				
Endrin aldehyde	0.08000	0.050	0.1	0	80.0	29.3	139				
gamma-BHC	0.09000	0.050	0.1	0	90.0	34.6	126				
Heptachlor	0.09000	0.050	0.1	0	90.0	34.9	127				
Heptachlor epoxide	0.09000	0.050	0.1	0	90.0	34.7	128				
Methoxychlor	< 0.10	0.10	0.1	0	0	35.6	134				M4
Surr: Decachlorobiphenyl	0.08000	0	0.1	0	80.0	21.4	130				
Surr: Tetrachloro-m-xylene	0.08000	0	0.1	0	80.0	28.5	128				

Sample ID 05020657-20A MS	SampType: MS	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID: 979-20	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.09500	0.025	0.1	0	95.0	31.4	140				
4,4'-DDE	0.1050	0.025	0.1	0	105	11.5	150				
4,4'-DDT	0.1100	0.025	0.1	0.03000	80.0	28.4	143				
Aldrin	0.09000	0.025	0.1	0	90.0	33.5	128				
alpha-BHC	0.09000	0.025	0.1	0	90.0	35.5	124				

Qualifiers:
E Value above quantitation range
ND Not Detected at the Reporting Limit
H Holding times for preparation or analysis exceeded
R RPD outside accepted recovery limits
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID 05020657-20A MS SampType: MS TestCode: 8081_S Units: mg/Kg Prep Date: 2/8/2005 RunNo: 56629
Client ID: 979-20 Batch ID: 20517 TestNo: SW8081A Analysis Date: 2/12/2005 SeqNo: 676252

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
beta-BHC	0.1000	0.025	0.1	0	100	32.5	131				
delta-BHC	0.09500	0.025	0.1	0	95.0	33.4	133				
Dieldrin	0.1000	0.025	0.1	0	100	30.9	140				
Endosulfan I	0.09000	0.025	0.1	0	90.0	32.9	132				
Endosulfan II	0.09000	0.025	0.1	0	90.0	30.4	148				
Endosulfan sulfate	0.09500	0.025	0.1	0	95.0	27.4	158				
Endrin	0.09000	0.025	0.1	0	90.0	30.8	142				
Endrin aldehyde	0.09500	0.025	0.1	0	95.0	29.3	139				
gamma-BHC	0.09000	0.025	0.1	0	90.0	34.6	126				
Heptachlor	0.09000	0.025	0.1	0	90.0	34.9	127				
Heptachlor epoxide	0.09000	0.025	0.1	0	90.0	34.7	128				
Methoxychlor	0.09500	0.050	0.1	0	95.0	35.6	134				
Surr: Decachlorobiphenyl	0.09500	0	0.1	0	95.0	21.4	130				
Surr: Tetrachloro-m-xylene	0.09500	0	0.1	0	95.0	28.5	128				

Sample ID 05020657-01A MSD SampType: MSD TestCode: 8081_S Units: mg/Kg Prep Date: 2/8/2005 RunNo: 56509
Client ID: 979-1 Batch ID: 20516 TestNo: SW8081A Analysis Date: 2/9/2005 SeqNo: 675090

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.09000	0.050	0.1	0	90.0	31.4	140	0.1000	10.5	35	
4,4'-DDE	0.1300	0.050	0.1	0	130	11.5	150	0.1400	7.41	35	
4,4'-DDT	0.1100	0.050	0.1	0	110	28.4	143	0.1100	0	35	
Aldrin	0.09000	0.050	0.1	0	90.0	33.5	128	0.09000	0	35	
alpha-BHC	0.09000	0.050	0.1	0	90.0	35.5	124	0.09000	0	35	
beta-BHC	0.1000	0.050	0.1	0	100	32.5	131	0.1000	0	35	
delta-BHC	0.09000	0.050	0.1	0	90.0	33.4	133	0.09000	0	35	
Dieldrin	0.09000	0.050	0.1	0	90.0	30.9	140	0.09000	0	35	
Endosulfan I	0.09000	0.050	0.1	0	90.0	32.9	132	0.09000	0	35	
Endosulfan II	0.08000	0.050	0.1	0	80.0	30.4	148	0.09000	11.8	35	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID 05020657-01A MSD	SampType: MSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56509
Client ID: 979-1	Batch ID: 20516	TestNo: SW8081A		Analysis Date: 2/9/2005	SeqNo: 675090

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endosulfan sulfate	0.09000	0.050	0.1	0	90.0	27.4	158	0.09000	0	35	
Endrin	0.09000	0.050	0.1	0	90.0	30.8	142	0.09000	0	35	
Endrin aldehyde	0.09000	0.050	0.1	0	90.0	29.3	139	0.08000	11.8	35	
gamma-BHC	0.09000	0.050	0.1	0	90.0	34.6	126	0.09000	0	35	
Heptachlor	0.09000	0.050	0.1	0	90.0	34.9	127	0.09000	0	35	
Heptachlor epoxide	0.09000	0.050	0.1	0	90.0	34.7	128	0.09000	0	35	
Methoxychlor	< 0.10	0.10	0.1	0	0	35.6	134	0	0	35	M4
Surr: Decachlorobiphenyl	0.08000	0	0.1	0	80.0	21.4	130	0.08000	0	0	
Surr: Tetrachloro-m-xylene	0.08000	0	0.1	0	80.0	28.5	128	0.08000	0	0	

Sample ID 05020657-20A MSD	SampType: MSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID: 979-20	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676253

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.09500	0.025	0.1	0	95.0	31.4	140	0.09500	0	35	
4,4'-DDE	0.1050	0.025	0.1	0	105	11.5	150	0.1050	0	35	
4,4'-DDT	0.1100	0.025	0.1	0.03000	80.0	28.4	143	0.1100	0	35	
Aldrin	0.09000	0.025	0.1	0	90.0	33.5	128	0.09000	0	35	
alpha-BHC	0.09500	0.025	0.1	0	95.0	35.5	124	0.09000	5.41	35	
beta-BHC	0.1000	0.025	0.1	0	100	32.5	131	0.1000	0	35	
delta-BHC	0.09500	0.025	0.1	0	95.0	33.4	133	0.09500	0	35	
Dieldrin	0.1000	0.025	0.1	0	100	30.9	140	0.1000	0	35	
Endosulfan I	0.09000	0.025	0.1	0	90.0	32.9	132	0.09000	0	35	
Endosulfan II	0.09000	0.025	0.1	0	90.0	30.4	148	0.09000	0	35	
Endosulfan sulfate	0.09500	0.025	0.1	0	95.0	27.4	158	0.09500	0	35	
Endrin	0.09500	0.025	0.1	0	95.0	30.8	142	0.09000	5.41	35	
Endrin aldehyde	0.1250	0.025	0.1	0	125	29.3	139	0.09500	27.3	35	
gamma-BHC	0.09500	0.025	0.1	0	95.0	34.6	126	0.09000	5.41	35	
Heptachlor	0.09000	0.025	0.1	0	90.0	34.9	127	0.09000	0	35	

Qualifiers:
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

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Tucson Facility: 4455 S. Park Ave. Ste. 110 Tucson, AZ 85714 Phone: 520.807.3801 Fax: 520.807.3803

CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID 05020657-20A MSD	SampType: MSD	TestCode: 8081_S	Units: mg/Kg	Prep Date: 2/8/2005	RunNo: 56629
Client ID: 979-20	Batch ID: 20517	TestNo: SW8081A		Analysis Date: 2/12/2005	SeqNo: 676253

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heptachlor epoxide	0.09000	0.025	0.1	0	90.0	34.7	128	0.09000	0	35	
Methoxychlor	0.09500	0.050	0.1	0	95.0	35.6	134	0.09500	0	35	
Surr: Decachlorobiphenyl	0.09500	0	0.1	0	95.0	21.4	130	0.09500	0	0	
Surr: Tetrachloro-m-xylene	0.09500	0	0.1	0	95.0	28.5	128	0.09500	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_S

Sample ID MB-20502	SampType: MBLK	TestCode: 8082_S	Units: mg/Kg	Prep Date: 2/7/2005	RunNo: 56385
Client ID:	Batch ID: 20502	TestNo: SW8082		Analysis Date: 2/7/2005	SeqNo: 673525

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	< 0.050	0.050									
Aroclor 1221	< 0.050	0.050									
Aroclor 1232	< 0.050	0.050									
Aroclor 1242	< 0.10	0.10									
Aroclor 1248	< 0.050	0.050									
Aroclor 1254	< 0.050	0.050									
Aroclor 1260	< 0.050	0.050									
Surr: Decachlorobiphenyl	0.07555	0	0.1	0	75.5	27.3	129				
Surr: Tetrachloro-m-xylene	0.08699	0	0.1	0	87.0	67.2	119				

Sample ID LCS-20502	SampType: LCS	TestCode: 8082_S	Units: mg/Kg	Prep Date: 2/7/2005	RunNo: 56385
Client ID:	Batch ID: 20502	TestNo: SW8082		Analysis Date: 2/7/2005	SeqNo: 673526

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.8377	0.050	1	0	83.8	74.8	110				
Aroclor 1260	0.7894	0.050	1	0	78.9	69.7	111				
Surr: Decachlorobiphenyl	0.07242	0	0.1	0	72.4	27.3	129				
Surr: Tetrachloro-m-xylene	0.08450	0	0.1	0	84.5	67.2	119				

Sample ID LCSD-20502	SampType: LCSD	TestCode: 8082_S	Units: mg/Kg	Prep Date: 2/7/2005	RunNo: 56385
Client ID:	Batch ID: 20502	TestNo: SW8082		Analysis Date: 2/7/2005	SeqNo: 673532

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.8689	0.050	1	0	86.9	74.8	110	0.8377	3.66	35	
Aroclor 1260	0.8221	0.050	1	0	82.2	69.7	111	0.7894	4.06	35	
Surr: Decachlorobiphenyl	0.07362	0	0.1	0	73.6	27.3	129	0.07242	0	0	
Surr: Tetrachloro-m-xylene	0.08615	0	0.1	0	86.1	67.2	119	0.08450	0	0	

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

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CLIENT: Red J Environmental
Work Order: 05020657
Project: BLM Las Cruces/979

ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_S

Sample ID 05020657-24A MS	SampType: MS	TestCode: 8082_S	Units: mg/Kg	Prep Date: 2/7/2005	RunNo: 56385
Client ID: 979-24	Batch ID: 20502	TestNo: SW8082		Analysis Date: 2/7/2005	SeqNo: 673530

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.633	0.10	2	0	81.6	49.6	132				
Aroclor 1260	1.498	0.10	2	0	74.9	50.8	126				
Surr: Decachlorobiphenyl	0.1383	0	0.2	0	69.2	11.3	120				
Surr: Tetrachloro-m-xylene	0.1433	0	0.2	0	71.6	39.3	128				

Sample ID 05020657-24A MSD	SampType: MSD	TestCode: 8082_S	Units: mg/Kg	Prep Date: 2/7/2005	RunNo: 56385
Client ID: 979-24	Batch ID: 20502	TestNo: SW8082		Analysis Date: 2/7/2005	SeqNo: 673531

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.675	0.10	2	0	83.8	49.6	132	1.633	2.56	35	
Aroclor 1260	1.536	0.10	2	0	76.8	50.8	126	1.498	2.53	35	
Surr: Decachlorobiphenyl	0.1315	0	0.2	0	65.7	11.3	120	0.1383	0	0	
Surr: Tetrachloro-m-xylene	0.1447	0	0.2	0	72.3	39.3	128	0.1433	0	0	

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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Lab Number: 05-02-065

Customer Number:		**Page** 1 of 3	
Customer:	Rod J Env. Corp.	**Sampler:** JKM	
Address:		**Project Name:**	BLM Las Cruces
City, State, Zip:		**Project Number:**	979
Contact:	Jim Moots	**P.O. Number:**	
Phone:	480-220-4840 **Fax:**	**Fax Results:**	Y (N)
E-Mail Address:	drmoots@yahoo.com	**E-Mail Results:**	(Y) N

DW - Drinking Water A - Air
WW - Waste Water (S - Soil)
HW - Hazardous Waste
Other

Sample Receipt

Temperature 5.0 °C
Custody Seals: Yes ____ No C
Custody Seals Intact: Yes ____ No N/A
Total # of Containers: 24

Turn Around Time

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 Working Days
X Standard 10 Working Days
Subject to scheduling & availability (surcharges apply).

Analysis Requested

Lab	Sample Identification	Date	Time	Type	13 Priority Pollutant Metals	8081	8082
01	979-1	2-2-05	10:15	Soil	X		
02	979-2		10:20				
03	979-3		10:26				
04	979-4		10:35		X		
05	979-5		10:38				
06	979-6		10:42				
07	979-7		10:48				
08	979-8		10:55		X		X
09	979-9		11:20				
10	979-10		11:30				

Sample Information

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
2-4-05	17:20		

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Lab Number: 05-02-065

Customer Number: Red J	Page 2 of 3
Customer:	Sampler: JKM
Address:	Project Name: BLM- Las Cruces
City, State, Zip:	Project Number: 979
Contact: Jim Moots	P.O. Number:
Phone: 480-220-4840 Fax:	Fax Results: Y (N)
E-Mail Address: dcmoots @ yahoo.com	E-Mail Results: (Y) N

Sample Type Code: DW - Drinking Water; WW - Waste Water; HW - Hazardous Waste; A - Air; (S - Soil); Other

Sample Receipt
Temperature 5.0 °C
Custody Seals: Yes___ No C
Custody Seals Intact: Yes___ No ND
Total # of Containers: 24

Turn Around Request
___ 24 Hours ___ 48 Hours
___ 72 Hours
___ 5 Working Days
X Standard 10 Working Days
Subject to scheduling & availability (surcharges apply).

Sample Information

Analyses Requested: 13 priority Metals; 8082; 8082

Lab #	Sample Identification	Date	Time	Type	13 priority Metals	8082	8082
11	979-11	2-2-5	11:35	Soil			
12	979-12		11:40				
13	979-13		11:50		X		
14	979-14		13:50				
15	979-15		13:52				
16	979-16		13:56				
17	979-17		14:00		X		X
18	979-18		14:05				
19	979-19		14:11				
20	979-20		14:16				

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
2-4-05	12:20	[signature]	[signature]

Analysis performed is subject to the Terms & Conditions available at www.aeroenvirolabs.com or call 866.772.5227 to request a copy.

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Lab Number: 05-02-0657

Customer Number:	Red J	Page 3 of 3	
Customer:		Sampler:	
Address:		Project Name:	
City, State, Zip:		Project Number:	
Contact:	Jim Moots	P.O. Number:	
Phone:	480-220-4840 Fax:	Fax Results:	(Y) N
E-Mail Address:	drmoots@yahoo.com	E-Mail Results:	(Y) N

Sample Type Codes: DW - Drinking Water; WW - Waste Water; HW - Hazardous Waste; A - Air; S - Soil; Other

Temperature 5.0 °C

Custody Seals: Yes ____ No 0

Custody Seals Intact: Yes ____ No NA

Total # of Containers: 24

Turn Around Request:

____ 24 Hours ____ 48 Hours

____ 72 Hours

____ 5 Working Days

X Standard 10 Working Days

Subject to scheduling & availability (surcharges apply).

Sample Information

ID	Sample Identification	Date	Time	Type	13 Priority Metals	8081	8082
21	979-21	2-2-5	14:20	Soil			
22	979-22	"	14:35	"			
23	979-23	"	14:40	"			
24	979-24	"	15:30	"			X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
2-2-05	12:20		

FIBERQUANT ANALYTICAL SERVICES

Polarized Light Microscope (PLM) Analysis for Asbestos

JobNumber: 200500956

Client: RED J ENVIRONMENAL CORP

PO BOX A

JOSEPH CITY, AZ 86032-0000

Office Phone: (928) 288-3239
FAX: (928) 288-3636

 # Samples: 4 PLM **Rec:** 2/4/2005 **Method:** EPA 600/R-93/116 PLM analysis for asbestos in bulk smp

Client Job: 979-Las Cruces **PO Number:** 979 **Routing Number:** -

Report Date: 2/7/2005 **Date Analyzed:** 2/7/2005

Method and Analysis Information: **Fiberquant Internal SOP:** PLMn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical characteristics are used to identify each observed fiber type; the optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA, NESHAP and OSHA regulations designate a result of <=1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber analysis and identification is the EPA Method 600/R-93/116. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <= 1%. The coefficient of variation for the estimation quantitation technique is 100% in the range 0-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing close to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <= 1% as "borderline negative", and results where asbestos was >1 % but <= 2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analyst, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, and the reported percent asbestos can only be considered the minimum that may be present. 30% is the generally acknowledged maximum amount of asbestos that manufacturers placed in floor tiles. A gravimetric TEM method should be used to obtain an accurate % of asbestos in floor tiles.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze client samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

PLM Analysis Summary: **Job Number: 200500956** 979-Las Cruces

Sample Number	Layer	Color	Lab Number / Apparent Layer Type *	Apparent Sample Type * / *Asbestos Results*		Positive Layer Yes or No
Sample	**979-25**		2005-00956- 1	Roofing		Positive Layer? No
	Layer # 1	Black	roofing roll/shingle	*no asbestos detected*		
	Layer # 2	Black	roofing roll/shingle	*no asbestos detected*		
Sample	**979-26**		2005-00956- 2	Wall System		Positive Layer? No
	Layer # 1	Tan	paper/cardboard	*no asbestos detected*		
	Layer # 2	White	drywall core	*no asbestos detected*		
Sample	**979-27**		2005-00956- 3	Cementitious		Positive Layer? Yes
	Layer # 1	Gray	cem/asb board	*10-20% chrysotile asbestos*	*2-5% crocidolite asbestos*	
Sample	**979-28**		2005-00956- 4	Flooring		Positive Layer? Yes
	Layer # 1	Tan	floor tile	*5-10% chrysotile asbestos*		

* Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the apparent type of material may not be the actual type of material.

PLM Analysis Details **Job Number: 200500956** 979-Las Cruces

Sample 979-25 **Lab Number** 2005-00956- 1 **Sampled:** 2/2/2005 **Condition:** acceptable

Analyzed By DMS 2/7/2005 **An?** OK **Apparent Smp Type** Roofing Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 6

Non-Fibrous Components (in approx. decreasing order): bitumen, rock,

Layers

#	Layer Type	%	Color	Friability
1	roofing roll/shingle	50	Black	1
2	roofing roll/shingle	50	Black	1
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	10-20%	-	-	-	-	-
	10-20%	-	-	-	-	-
Average %	10-20%	-	-	-	-	-
Fiber Identification:	cellulose fiber					

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2								
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent. Roof shingles are stuck together back-to-back.

Sample 979-26 **Lab Number** 2005-00956- 2 **Sampled:** 2/2/2005 **Condition:** acceptable

Analyzed By DMS 2/7/2005 **An?** OK **Apparent Smp Type** Wall System Fibrous Solid

Homogeneous No **# Layers** 2 **Pos Layer?** No **# Sub-Samples** 4

Non-Fibrous Components (in approx. decreasing order): powder, ,

Layers

#	Layer Type	%	Color	Friability
1	paper/cardboard	1	Tan	2
2	drywall core	99	White	3
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	80-90%	n.d.	-	-	-	-
	n.d.	>1-2%	-	-	-	-
Average %	<=1%	>1-2%	-	-	-	-
Fiber Identification:	cellulose fiber	glass fiber				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	cellulose fiber	W	F	N	N	H	+	U
2	glass fiber	CL	D	Y				
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per

Sample Analytical Note

Procedure: tweased apart using forceps.

Sample 979-27 **Lab Number** 2005-00956- 3 **Sampled:** 2/2/2005 **Condition:** acceptable

Analyzed By DMS 2/7/2005 **An?** OK **Apparent Smp Type** Cementitious Fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): powder, ,

Layers

#	Layer Type	%	Color	Friability
1	cem/asb board	100	Gray	2
	Total %	100		

Percents of Each Fiber

	Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
	10-20%	2-5%	-	-	-	-
	10-20%	2-5%	-	-	-	-
Average %						
Fiber Identification:	chrysotile asbestos	crocidolite asbesto				

Fibers		Color	Mrph	Iso	Pleo	Bi	Elg	Ext
1	chrysotile asbestos	W	A	N	N	L	+	P
2	crocidolite asbestos	BL	C	N	Y	L	-	P
3								
4								
5								
6								

Refractive Index Determinations

Oil	Col Par	Col Per	RI Par	RI Per
1.550	vb/g	sb/o	1.556	1.553
1.680	b/w	b/w	~1.70	~1.71

Sample Analytical Note

Procedure: grinding using mortar & pestle

PLM Analysis Details

Job Number: 200500956 979-Las Cruces

Sample 979-28 **Lab Number** 2005-00956-4 **Sampled:** 2/2/2005 **Condition:** acceptable

Analyzed By DMS 2/7/2005 **An?** OK **Apparent Smp Type** Flooring Non-fibrous Solid

Homogeneous Yes **# Layers** 1 **Pos Layer?** Yes **# Sub-Samples** 3

Non-Fibrous Components (in approx. decreasing order): filler, binder,

Layers

#	Layer Type	%	Color	Friability	Percents of Each Fiber: Fib 1	Fib 2	Fib 3	Fib 4	Fib 5	Fib 6
1	floor tile	100	Tan	1	5-10%	-	-	-	-	-
	Total %	100		Average %	5-10%	-	-	-	-	-
				Fiber Identification:	chrysotile asbestos					

Fibers

		Color	Mrph	Iso	Pleo	Bi	Elg	Ext	Refractive Index Determinations: Oil	Col Par	Col Per	RI Par	RI Per
1	chrysotile asbestos	W	A	N	N	L	+	P	1.550	db/ly	vb/g	1.561	1.553
2													
3													
4													
5													
6													

Sample Analytical Note

Procedure: tweased apart using forceps. Procedure: dissolution of matrix using solvent.

Fr=Friability: 1=very non-friable; 2= non-friable; 3=friable; 4=highly friable
Colors: B=black;BL=blue;BR=brown;CL=clear;G=Green;GY=gray;OR=orange;OW=off-white;PN=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various
Fiber Morphology: A=fine fibers/bundles, white, sinewy, flexible; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; D=fine to coarse fibers, CL-B, brittle; E=coarse fibers,CL or dyed, striated; F=coarse fibers or splinters, W-BR, ribbon-like; G=lath-like or shards, low aspect ratio, may taper
Iso=isotropism - may be yes or no; Pleo=pleochroism - may be yes or no; Bi=birefringence - may be None, Low, Medium or High
Elg=sign of elongation - may be + or -; Ext=extinction - may be Parallel, Oblique, None or Undulating; Oil=medium used to for dispersion staining
Col Par=dispersion staining colors parallel to the fiber (fiber/halo): b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/ly=dark blue/lemon yellow; vb/g= vivid blue/gold; sb/o=sky blue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber.
RI Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber

David M. Schaller

Analyst: DAVID M. SCHALLER

Printed: 07-Feb-05

Original Print Date: 07-Feb-05

Larry S. Pierce

Larry S. Pierce, Approved Accreditation Signatory

FIBERQUANT ANALYTICAL SERVICES

Chain-of-Custody Form

Submitted by (Company) Red J	
Address	
City, State, Zip Code	
Phone	FAX

Invoice to (Company)	
Address	
City, State, Zip Code	
Phone	FAX

Contact (print) Jim Moots
Sampled by (signature) JKM
Job Number or Project Name 979- Las Cruces
PO Number

Sample Method Required ONLY ONE METHOD per COC		Turn-around-time (circle one) Rush	Norm	Ext.
Asbestos by PLM (circled)	Improved (circled) Interim Analyze all samples? Yes (circled) No Analyze 'til positive found (ATPF) ? If so then by Layer or Sample (circled) Single Layer Protocol Yes No	<6 hrs	1-3 days (circled)	15-30 days
Fibers by PCM	7400(Area) ORM (Personal)	<4 hrs	24 hrs	3-5 days
Asbestos by TEM	AHERA Mod. AHERA	<6 hrs	24 hrs	3-5 days
	Water Sludge	1-2 days	3-5 days	10 days
	Gravimetry: Chatfield Full	1-2 days	3-5 days	10 days
	Vacuum Dust (ASTM)	3.5 days	5-10 days	N/A
Metals by FLAA	analyte: Cd Cr Cu Ni Pb Zn matrix: Filter MCE FG; Paint by Area / by Weight; Soil; Wipe Initial here certifying wipes used are ASTM E1792 compliant ____	<6 hrs	2-3 days	N/A
Fungi	Air Sample ID/Count Zefon Other Bulk Swab Tape: Qualitative (%) Quantitative (cm2)	<6 hrs	1-2 days	N/A
	Culturable Air Bulk/Dust Swab	7 days Only		
Dust	NIOSH 500	<4 hrs	24 hrs	N/A
Other		Call	Call	

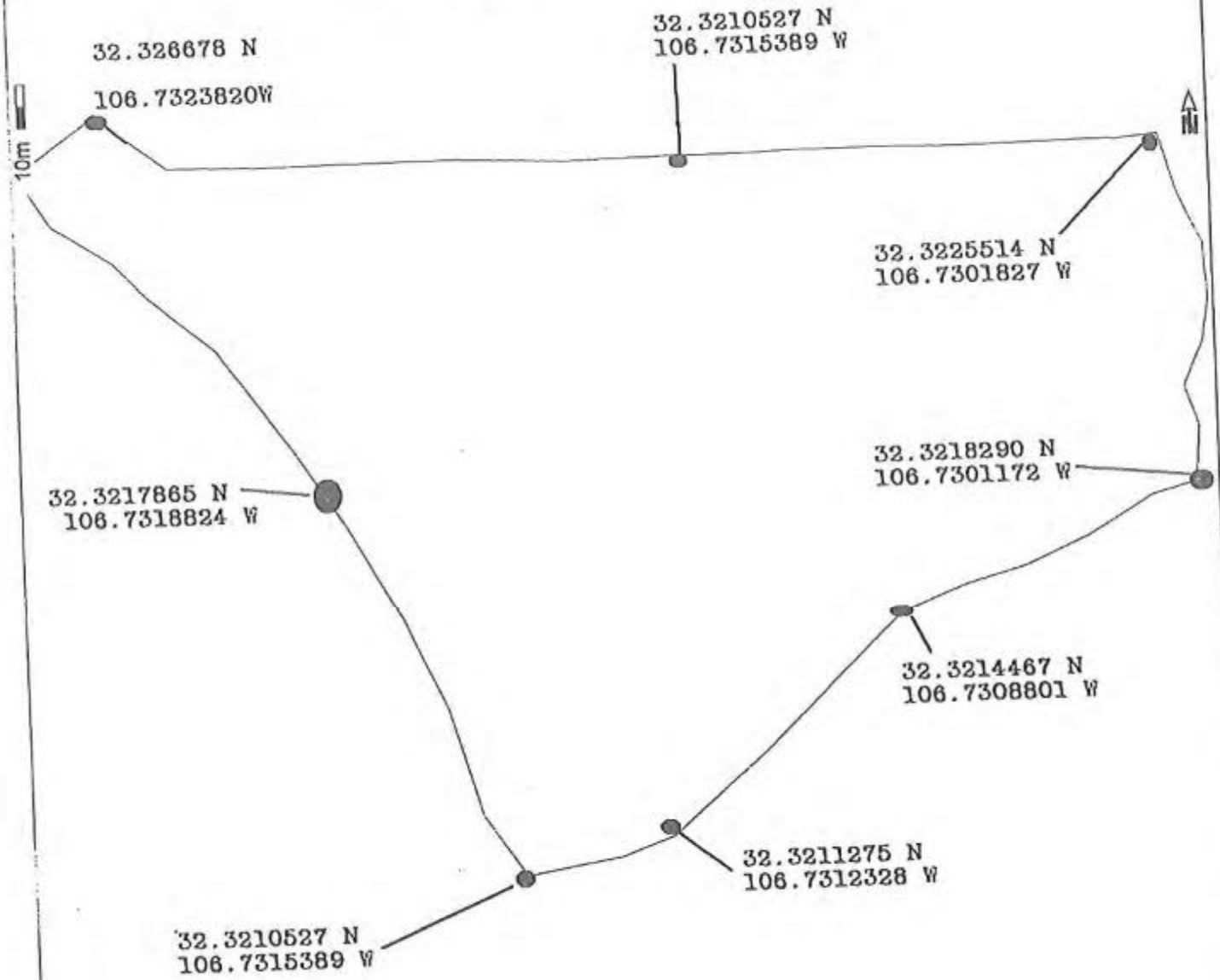
Review of Analysis Request __________ Date__________

Sample Number	Description/Location (include agar type/maker/exp. Date)	Sample Date	Sample Time	Vol/Area
1) 979-25	Roofing At Sample 7	2-2-5		
2) 979-26	Drwall AT Sample 12 Buried	|		
3) 979-27	Transile Pipe At Sample 12	|		
4) 979-28	tile at Sample 13 Buried	|		
5)				
6)				
7)				
8)				
9)				
10)				
11)				
12)				
13)				
14)				
15)				
16)				
17)				
18)				
19)				
20)				

1)Relinquished by: [signature]	Date: 2-4-05	Time: 11:55	3)Relinquished by:	Date:	Time:
2)Received by: [signature] Townsend	Date: 2-4-05	Time: 11:55	4)Received by:	Date:	Time:

Project : Untitled

NEW MEXICO LANDFILL OUTLINE
RAMDOM GPS POINTS

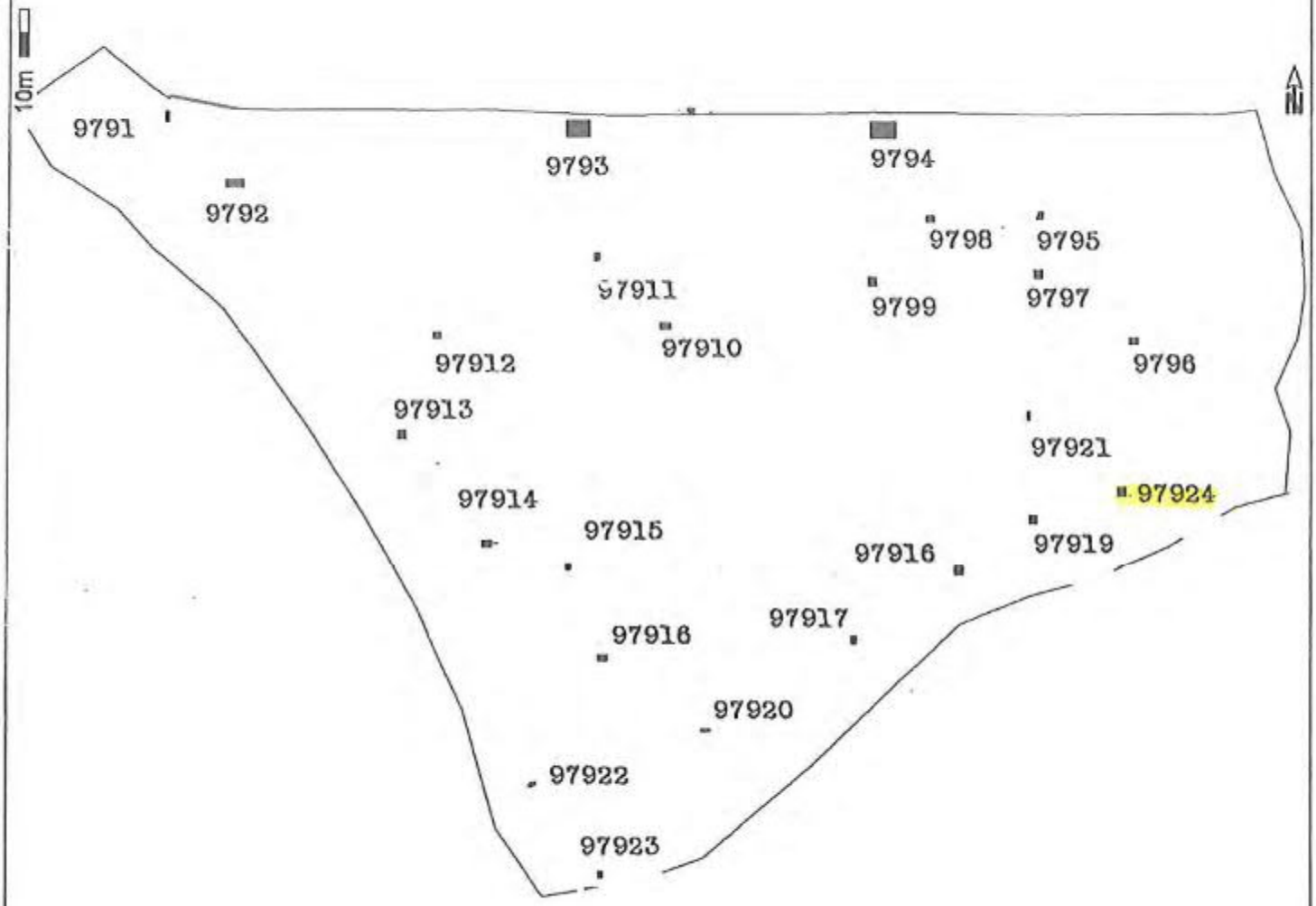


GISDataPRO Ver. 3, 0, 0, 318 Printed : 05/02/2005

Coord. System :	WGS 1984
Proj. Coord. Units :	Lat/Lon (deg)
Ellipsoid :	WGS 1984
Projection :	None
Transformation :	None
Geoid Model :	None
Display Units :	Meters (m)
Display Scale:	1:1800

Leica

Project : Untitled



GISDataPRO Ver. 3, 0, 0, 318 Printed : 05/02/2005

Coord. System :	WGS 1984
Proj. Coord. Units :	Lat/Lon (deg)
Ellipsoid :	WGS 1984
Projection :	None
Transformation :	None
Geoid Model :	None
Display Units :	Meters (m)
Display Scale:	1:1800

Leica

node	WGS84 LAT	WGS84 LON.
9791	32.322583 N	106.7323038 W
9792	32.32252230 N	106.7315855 W
9793	32.3224751 N	1067310125 W
9794	32.3224751 N	106.7310125 W
9795	32.3223925 N	106.306463 W
9796	32.3221938 N	106.7304348 W
9797	32.3222847 N	1067307397 W
9798	32.3223852 N	106.7309172 W
9799	32.3223045 N	106.7309866 W
97910	32.3222130 N	106.7312806 W
97911	32.3222724 N	106.7314792 W
97912	32.3221453 N	106.7317146 W
97913	32.3219960 N	106.7317959 W
97914	32.3218363 N	106.7316480 W
97915	32.3217792 N	106.7314959 W
97916	32.3215849 N	106.7313652 W
97917	32.321662 N	10673094003 W
97918	32.3217744 N	106.7306638 W
97919	32.3219033 N	106.7305862 W
97920	32.3214320 N	106.7312220 W
97921	32.3220444 N	106.7306240 W
97922	32.3213488 N	106.7315481 W
97923	32.3211035 N	106.7315028 W
97924	32.3219245 N	106.7304097 W

John, Report on Old Las Cruces landfill Investigation. Asbestos + Lead results make disposal to non PRP problematic.

Mark

LIMITED SITE INVESTIGATION

CITY OF LAS CRUCES
FORMER PASEO DE ONATE LANDFILL
TRACT 9cr1 AND THE NORTHWEST PORTION OF TRACT 9ac2
LOHMAN AVENUE AND PASEO DE ONATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Terracon Project No. 68067007
October 3, 2006

Prepared for:

CITY OF LAS CRUCES
Las Cruces, New Mexico

Prepared by:

TERRACON
Las Cruces, New Mexico

Terracon

October 3, 2006

City of Las Cruces
575 South Alameda Boulevard
Las Cruces, New Mexico 88005

Attn: Mr. Tory Aguirre
Phone: (505) 528-3113
Fax: (505) 528-3158

Re: Limited Site Investigation
Former Paseo de Oñate Landfill
Tract 9cr1 and the Northwest Portion of Tract 9ac2
Lohman Avenue and Paseo de Oñate
Las Cruces, Dona Ana County, New Mexico
Terracon Project No. 680657007

Dear Mr. Aguirre:

Terracon Consultants, Inc. (Terracon) is pleased to submit three copies of the Limited Site Investigation (LSI) report for the above-referenced site. This investigation was performed in accordance with Terracon's Proposal Number P06806-068E and Amendment No. 1, dated March 30, 2006 and July 15, 2006, respectively as authorized by Mr. Tony Aguirre with the City of Las Cruces on April 21, 2006 and August 7, 2006.

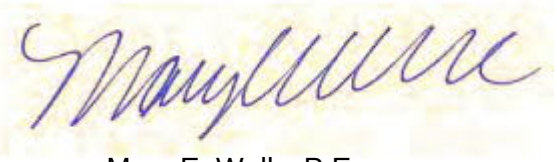
We appreciate the opportunity to perform these services for City of Las Cruces. Please contact either of the undersigned at (505) 527-1700 if you have questions regarding the information provided in the report.

Sincerely,
TERRACON

Prepared by:

Carina G. Munoz Ortega, E.I.T.
Staff Engineer

Reviewed by:



Mary E. Wells, P.E.
Associate Principal

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TRACT 9cr1 AND THE NORTHWEST PORTION OF TRACT 9ac2
LOHMAN AVENUE AND PASEO DE ONATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Terracon Project No. 66067007
October 3, 2006

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a Limited Site Investigation (LSI) of the property located at the southeast (northwest portion of Tract 9ar2)and southwest (Tract 9cr1) corners of Lohman Avenue and Paseo de Oñate in Las Cruces, Doña Ana County, New Mexico. The site is undeveloped vacant land and has an approximate total area of 11 acres. During the site reconnaissance, construction debris was observed throughout the property. According to information provided in the previous assessment conducted for the subject site by Souder, Miller & Associates (SMA), which is summarized in their report entitle "Phase II Report for Parcel of Land Located at the Southwest and Southeast Corner of Lohman Avenue and Paseo de Oñate, Las Cruces, New Mexico" dated February 22, 2002, the property was previously used as a landfill that "discontinued receiving waste prior to implementation of the current New Mexico Environment Department (NMED) Solid Waste Bureau (SWB) regulations."

1.1 Site Description

Site Name	Paseo de Oñate Old Landfill
Site Location/Address	Sourthwest corner (Tract 9cr1) and southeast corner (northwest portion of Tract 9ar2) of Lohman Avenue and Paseo de Onate Las Cruces, Doña Ana County, New Mexico
General Site Description	Undeveloped Land (11 acres total)

Figure 1 presents the general site boundaries and topography of the site on portions of the 1990 USGS topographic quadrangle map of Tortugas Mountain, New Mexico. Figure 2 presents the general site boundaries on the USGS 2003 aerial photograph (please see Appendix A).

1.2 Scope of Work

At your request, Terracon's LSI was to provide the services described below:

For the southwest corner (Tract 9cr1):

- Reviewing reports summarizing investigations that have been previously conducted for the BLM.
- Advancing twenty shovel test holes to maximum depths of 5 feet to assess the thickness of the debris, and to assess the potential for contamination.
- Collecting soil samples from each of the borings with a decontaminated hand trowel and placing in laboratory prepared glass jars.
- Sealing the glass jars with Teflon-lined lids, labeling with a unique identification number, and storing in a chilled container until delivery to Environmental Science Corporation Laboratory.
- Analyzing five soil samples for TPH by EPA Test Method 418.1.
- Analyzing two samples for Pesticides/PCBs by Test Method 8081/8082.
- Analyzing two samples for SVOCs by EPA Test Method 8270 (short list).
- Analyzing two samples for TCLP Metals by EPA Test Method 8311 and 6010.
- Analyzing ten samples of suspect ACM for asbestos content by Polarized Light Microscopy (PLM).

For the southeast corner (northwest portion of Tract 9ar2):

- Advancing twenty borings using a hand auger to depths of 5 feet.
- Collecting soil samples from each of the borings with a decontaminated hand trowel and placing in laboratory prepared glass jars.
- Sealing the glass jars with Teflon-lined lids, labeling with a unique identification number, and storing in a chilled container until delivery to Environmental Science Corporation Laboratory.
- Analyzing twenty soil samples for lead by EPA Test Method 6010.
- Collecting twenty samples of construction debris to assess the area for potential asbestos containing materials (ACM).

In addition to the activities outline above, Terracon prepared this report summarizing field activities, analytical results and recommendations.

1.3 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

1.4 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.5 Reliance

This LSI report has been prepared for the exclusive use and reliance of the City of Las Cruces. Use or reliance by any other party is prohibited without the written authorization of the City of Las Cruces and Terracon.

Reliance on the LSI by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 LITERATURE REVIEW

Terracon reviewed, in detailed, data from earlier investigations that have been conducted by the Bureau of Land Management (BLM) office and the City of Las Cruces (CLC).

A memorandum dated September 23, 1996, addressed to the State Director of the U.S. Department of Interior Bureau of Land Management, summarizes the history of project site. The memorandum explained that the BLM Las Cruces District Office (LCDO) issued a R&PP lease NMNM 081315 for 56.52 acres of land to the CLC for a landfill on November 1, 1959, for Lots 11 and 12, Section 10, T 23 S, R 2 E. The CLC relinquished the lease on September 12, 1966 and closed the landfill. As a result of the Elena Gallegos Exchange, in 1982, Lot 12 and an additional 500-acre tract of land were retained for future public purposes and the BLM LCDO executed two agreements for the CLC and the Las Cruces Public Schools. The CLC planned to develop this land into two parks. At the same time, the City of Albuquerque acquired 2,800 acres of the Las Cruces East Mesa, which included a portion of Lot 11 and most of Section 10, with the exception a cemetery found in the area. However, when the Elena Gallegos Exchange was prepared, the old landfill (Lots 11 and 12) was omitted from the information given to the new proprietors. The historical uses of the site were discovered when Alameda Land and Development Corporation purchased 75 acres of Section 10. Consequently, in the early 1990s, the CLC recapped the north part of Lots 11 and 12, since the soil covering the trash had eroded and trash was exposed. In 1996 the CLC intended to acquire Lot 12 under the R&PP Act as open space and the right-of-ways for Roadrunner Parkway and Lohman Avenue but the BLM LCDO wanted to patent Lot 12 under the R&PP Act acknowledging the potential for hazardous waste and indemnifying the United States from any future liability. Furthermore, the LCDO proposed to sell the mineral estate beneath the R&PP patent, under Section U209 of the Federal Land Policy and Management Act (FLPMA) to reduce the clean up cost for BLM and terminate the split-estate situation.

Souder, Miller and Associates (SMA) conducted a Phase II Environmental Assessment (ESA) and prepared a summary report dated February 22, 2002 for the City of Las Cruces. The Phase II ESA was performed for the southeast corner of Lohman Avenue and Paseo de Oñate section (the northwest portion of Tract 9ac2). The report states that the subject property was part of a former landfill that discontinued receiving waste prior to the implementation of NMED Solid Waste Bureau (SWB) regulations. SMA collected several samples and analyzed the samples for ACM, VOCs, SVOCs, TPH, pesticides/PCBs, and TCLP metals. SMA also conducted a methane assessment. The laboratory results indicated the presence of friable ACM on the parcel. SMA also detected arsenic, barium, cadmium, chromium, lead, and mercury in the soil at concentrations above the method detection limits but below the New Mexico Environment Department (NMED) Soil Screening Levels (SSLs).

SCS Engineers was retained by the BLM office in 2003 to conduct a landfill gas survey at the former landfill. Based on the “Old Las Cruces Landfill Final Closure Plant, Doña Ana County,

New Mexico, Final Report" prepared by SCS Engineers, dated July 28, 2003, the City of Las Cruces closed the landfill and relinquished the lease in 1966. Closure consisted of covering the landfill with about two feet of soil. Furthermore, SCS Engineers prepared project work plan that specified sampling and analysis, quality assurance/control and health and safety procedures for landfill gas sampling. The work plan was submitted to the New Mexico Environment Department Air Quality Bureau, Enforcement Section for its approval prior to sampling. The work plan was approved in November 6, 2002. The work consisted of sampling soil 32 locations and conducting a methane survey of 53 utility manholes. Methane was not detected in the 32 soil sampling locations, nor in the 53 vaults surveyed.

Red J. Environmental Corporation (RED J), under contract with BLM, sampled the Old Las Cruces Municipal Landifll on February 2, 2005. RED J collected 24 soil samples at depths ranging from 4 to 12 feet in the area of the old landfill. The sampling event indicated the presence of asbestos containing materials (ACM), and heavy metals. DDT, DDE, and lead were also detected. The concentrations of these chemicals are below the residential and commercial NMED SSLs, with the exception of one soil sample identified as 979-1-24, where the lead concentration was above the residential screening level, but below the commercial screening level. In addition, three samples confirmed the presence of ACM, with ACM contents ranging from 2% to 10% chrysotile and crocidolite asbestos.

3.0 SITE ACTIVITIES

On April 25 and August 9, 2006, a Terracon field crew investigated the subsurface soil conditions in the areas of the former landfill with a total of 40 borings advanced using a hand auger and/or shovel to a maximum depth of 5 feet. The purpose of the investigation was to assess the areas for potential ACM, lead, VOCs, SVOCs, TCLP Metals, pesticides/PCBs and TPH in subsurface soils. Figure 3 is a site plan that indicates the approximate locations of the soil borings and suspect ACM sampling location (Appendix A).

Terracon's field activities were conducted in the southeast section (northwest portion of Tract 9ar2) on April 25, 2006 and in the southwest section (Tract 9cr1) on August 9, 2006, by Mr. William T. Martinez, a Terracon geotechnical staff engineer, and Carina G. Munoz, a Terracon environmental staff engineer and licensed AHERA inspector. Terracon notified New Mexico One Call and Blue Stake to locate underground public utilities at the site prior to sampling activities.

Soil excavation equipment was cleaned between sampling locations using a solution of Alconox and de-ionized water.

Soil samples were collected from each boring with a decontaminated hand trowel and placed in laboratory prepared glass jars. The jars were sealed with Teflon-lined lids, labeled with a

unique identification number, and stored on ice until delivery to Environmental Science Corporation Laboratory under Chain-of-custody requirements.

3.1 Southeast Section (Northwest portion of Tract 9ar2)

Terracon collected 20 soil samples for lead analysis from the southeast section. The samples were collected at the surface and at depths of 2.5 feet and 5 feet. Additionally, Terracon collected twenty samples in the southeast section of construction debris to assess the area for potential ACM in areas that were not previously sampled by SMA. The suspect ACM samples were collected by an Asbestos Hazard Emergency Response Act (AHERA) accredited licensed asbestos inspector.

3.2 Southwest Section (Tract 9cr1)

Ten soil samples collected for analysis of TCLP Metals, VOCs, Semi-VOCs, Pesticides/PCBs and TPH in the southwest section were collected at the surface and at a depth of 2.5 feet unless trash was encountered at a greater depth. Additionally, Terracon collected ten samples in the southwest section of construction debris to assess the area for potential asbestos containing material (ACM). The samples of ACM collected in the southwest section were randomly selected. The suspect ACM samples were collected by an Asbestos Hazard Emergency Response Act (AHERA) accredited licensed asbestos inspector.

4.0 LABORATORY ANALYTICAL METHODS AND RESULTS

Soil samples were analyzed by Environmental Science Corporation Laboratory. Twenty samples were analyzed for lead by EPA Test Method 6010; five samples were analyzed for TPH by EPA Test Method 418.1; and two samples were analyzed for Pesticides/PCBs by EPA Test Method 8081/8082. Two additional samples were analyzed for SVOCs by EPA Test Method 8270 and two samples were analyzed for TCLP Metals by EPA Test Methods 1311 and 6010. In the southeast and southwest sections, twenty and ten additional samples of suspect ACM, respectively, were analyzed for asbestos content by Polarized Light Microscopy (PLM) “Interim Method of Determination of Asbestos in Bulk Insulation Samples” by Analytica Solutions, Inc. an AHA accredited and NVLAP registered (code 101086-0) laboratory.

The results of the laboratory testing and ACM suspect materials for the southeast section are presented Tables 1 and 2, respectively. The results of the laboratory testing and ACM suspect material for the southwest section are presented in Tables 3 through 7. Laboratory analytical reports are included in Appendix B.

TABLE 1: SUMMARY OF LABORATORY RESULTS
Soil sampling for Lead (Pb) – Southeast Section (Northwest Portion of Tract 9ar2)
(EPA Method 6010B)

Sample I.D.	Laboratory Result Pb (mg/kg)	NMED Soil Screening Levels (mg/kg) for Pb*	
		Residential	Commercial/Industrial
B-1	25.0	400	750
B-2	3.1	400	750
B-3	5.6	400	750
B-4	26.0	400	750
B-5	70.0	400	750
B-6	3.3	400	750
B-7	2.4	400	750
B-8	4.9	400	750
B-9	3.2	400	750
B-10	4.5	400	750
B-11	2.5	400	750
B-12	18.0	400	750
B-13	40.0	400	750
B-14	6.7	400	750
B-15	6.8	400	750
B-16	27.0	400	750
B-17	4.8	400	750
B-18	7.2	400	750
B-19	6.8	400	750
B-20	7.1	400	750

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste.*

TABLE 2: SUMMARY OF LABORATORY RESULTS
Suspect ACM Samples – Southeast Section (Northwest Portion of Tract 9ar2)

Sample I.D.	Description	Percentage and Type of Asbestos
SN- 1	White ceramic tile	0%
SN- 1	Pink plaster with paint	0%
SN- 2	White plaster	0%
SN- 3	White rock	0%
SN- 4	Red/gray cement asbestos board	20% Chrysotile
SN- 5	Off-white sand plaster	0%
SN- 6	Off-white felt	75% Chrysotile
SN- 7	Light tan floor tile	10% Chrysotile
SN- 8	Gray rock	0%
SN- 9	Brown/light gray felt material	0%
SN-10	Beige checkered linoleum	40% Chrysotile
SN-11	Brown foam with sand	0%
SN-12	Gray paper, insulation with debris	0%
SN-13	Rust-colored material	0%
SN-14	Black shingles with white granules	0%
SN-15	Black tar with blue granules	0%
SN-16	Tan sand material	0%
SN-18	Two parts	12.3 % Chrysotile 1.4% Crocidolite
SN-8	Part A, brown floor tile	15% Chrysotile
SN-18	Part B, black tar	9.0% Chrysotile 3.0% Crocidolite
SN-19	White floor tile	20.0% Chrysotile
SN-20	Brown/white pressboard	0%

TABLE 3: SUMMARY OF LABORATORY RESULTS
Soil sampling for TPH – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)					NMED Soil Screening Levels (mg/kg)*	
	SB-1	SB-3	SB-6	SB-7	SB-10	Residential	Commercial
TPH / 418.1	BDL	BDL	BDL	BDL	BDL	500	1,000

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 4: SUMMARY OF LABORATORY RESULTS
Soil sampling for Pesticides and PCBs – Southwest Section (Tract 9ac1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-2	SB-9	Residential	Commercial
Pesticides and PCBs / 8081 and 8082				
Aldrin	BDL	BDL	0.284	1.12
Alpha BHC	BDL	BDL	0.902	3.99
Delta BHC	BDL	BDL	3.16	14.0
Gamma BHC	BDL	BDL	4.37	19.3
Chlordane	BDL	BDL	16.2	71.9
4,4-DDD	BDL	BDL	24.4	111
4,4-DDE	BDL	BDL	17.2	78.1
4.4-DDT	BDL	BDL	17.2	78.1
Dieldrin	BDL	BDL	0.304	1.2
Endosulfan I	BDL	BDL	360	4,100
Endosulfan II	BDL	BDL	*NA*	*NA*
Endosulfan Sulfate	BDL	BDL	*NA*	*NA*
Endrin	BDL	BDL	18.0	205
Endrin Aldhyde	BDL	BDL	*NA*	*NA*
Endrin ketone	BDL	BDL	*NA*	*NA*
Heptachlor	BDL	BDL	1.08	4.26
Heptachlor epoxide	BDL	BDL	*NA*	*NA*
Hexachlorobenzene	BDL	BDL	3.04	12.0
Methoxychlor	BDL	BDL	*NA*	*NA*
Toxaphene	BDL	BDL	4.42	17.4
PCB 1016	BDL	BDL	2.22	8.26
PCB 1221	BDL	BDL	2.22	8.26
PCB 1232	BDL	BDL	2.22	8.26
PCB 1242	0.31	BDL	2.22	8.26
PCB 1248	BDL	BDL	2.22	8.26
PCB 1254	BDL	BDL	1.11	8.26
PCB 1260	BDL	BDL	2.22	8.26

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 5: SUMMARY OF LABORATORY RESULTS
Soil sampling for SVOCs – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-4	SB-8	Residential	Commercial
SVOCs / 8270				
Acenaphtene	BDL	BDL	469	34,800
Acenaphthylene	BDL	BDL	*NA*	*NA*
Anthracene	BDL	BDL	23,500	264,000
Benzidene	BDL	BDL	211	833
Benzo(a)anthracene	BDL	BDL	6.24	23.4
Benzo(b)fluoranthene	BDL	BDL	6.21	23.4
Benzo(k)fluoranthene	BDL	BDL	62.1	234
Benzo(g,h,i)perylene	BDL	BDL	*NA*	*NA*
Benzo(a)pyrene	BDL	BDL	0.621	2.34
Bis(2-chlorethoxy)methane	BDL	BDL	*NA*	*NA*
Bis(2-chloroethyl)ether	BDL	BDL	2.04	5.95
Bis(2-chloroisopropyl)ether	BDL	BDL	3,130	6,190
4-Bromophenyl-phenylether	BDL	BDL	*NA*	*NA*
2-Chloronaphtalene	BDL	BDL	*NA*	*NA*
4-Chlorophenyl-phenylether	BDL	BDL	*NA*	*NA*
Chrysene	BDL	BDL	621	2,340
Dibenz(a,h)anthracene	BDL	BDL	0.621	2.34
3,3-Dichlorobenzidine	BDL	BDL	10.8	42.6
2,4-Dinitrotoluene	BDL	BDL	120	1,370
2,6-Dinitrotulene	BDL	BDL	*NA*	*NA*
Fluoranthene	BDL	BDL	2,250	24,400
Fluorene	BDL	BDL	3,130	29,400
Hexachlorobenzene	BDL	BDL	3.04	12.0
Hexachloro-1,3-butadiene	BDL	BDL	12.0	137
Hexachlorocyclopentadiene	BDL	BDL	125	4,100
Hexachloroethane	BDL	BDL	60.0	684
Indeno (1,2,3-cd)pyrene	BDL	BDL	6.21	23.4
Isophorone	BDL	BDL	5,120	20,200
Naphthalene	BDL	BDL	71.9	98.3
Nitrobenzene	BDL	BDL	21.8	136
n-Nitrosodimethylamine	BDL	BDL	0.0954	0.376
n-Nitrosodiphenylamine	BDL	BDL	993	3,910
n-Nitrosodi-n-propylamine	BDL	BDL	*NA*	*NA*
Phenanthrene	BDL	BDL	1,800	20,500
Benzylbutyl phthalate	BDL	BDL	*NA*	*NA*
Bis(2-enhylhexyl)phthalate	BDL	BDL	347	1,370

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-4	SB-8	Residential	Commercial
SVOCs / 8270				
Di-n-butyl phthalate	BDL	BDL	6,000	68,400
Diethyl phthalate	BDL	BDL	48,000	100,000
Dimethyl phthalate	BDL	BDL	100,000	100,000
Di-n-octyl-phthalate	BDL	BDL	*NA*	*NA*
Pyrene	BDL	BDL	2,300	31,300
1,2,4-Trichlorobenzene	BDL	BDL	651	853
4-Chloro-3-methylphenol	BDL	BDL	*NA*	*NA*
2-Chlorophenol	BDL	BDL	391	807
2,4-Dichlorophenol	BDL	BDL	180	2,050
2,4,-Dimethylphenol	BDL	BDL	1,200	13,700
4,6-Dinitro-2-methylphenol	BDL	BDL	*NA*	*NA*
2,4-Dinitrophenol	BDL	BDL	*NA*	*NA*
2-Nitrophenol	BDL	BDL	*NA*	*NA*
4-Nitrophenol	BDL	BDL	*NA*	*NA*
Pentachlorophenol	BDL	BDL	29.8	100
Phenol	BDL	BDL	18,000	100,000
2,4,6-Tribromophenol	BDL	BDL	*NA*	*NA*

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 6: SUMMARY OF LABORATORY RESULTS
Soil sampling for TCLP Metals – Southwest Section (Tract 9cr1)

Analysis / EPA Method	Sample Results (mg/kg)		NMED Soil Screening Levels (mg/kg)*	
	SB-5	SB-9	Residential	Commercial
TCLP Metals				
Mercury	BDL	BDL	23.5	341
Arsenic	BDL	BDL	3.9	17.7
Barium	1.1	1.4	5,450	78,300
Cadmium	BDL	BDL	74.1	8,600
Chromium	BDL	BDL	NA	NA
Lead	BDL	BDL	400	750
Selenium	BDL	BDL	391	5,680
Silver	BDL	BDL	391	5,680

**According to the Technical Background Document for Development of Soil Screening Levels Revision 2.0 prepared by the New Mexico Environment Department (NMED) Hazardous Waste*
NA: No NMED values available.

TABLE 7: SUMMARY OF LABORATORY RESULTS
Suspect Asbestos Bulk Samples – Southwest Section (Tract 9cr1)

Sample I.D.	Description	Percentage and Type of Asbestos
CLCSN-1	Gray and yellow floor tile	10% Chrysotile
CLCSN-2[A]	Off-white perlitic plaster	0%
CLCSN-2[B]	White foam	0%
CLCSN-3	Gray and tan floor tile-like material	0%
CLCSN-4	Brown pressboard	0%
CLCSN-5	Black shingle with granules	0%
CLCSN-6	Fine white material	0%
CLCSN-7[A]	White foam	0%
CLCSN-7[B]	Black mastic-like material	0%
CLCSN-8	Light gray floor tile	20% Chrysotile
CLCSN-9[A]	Gray floor tile	Less then 1% Chrysotile
CLCSN-9[B]	Black mastic	5% Chrysotile
CLCSN-9[C]	Fine white material	0%
CLCSN-10	Light brow material	0%

5.0 DATA EVALUATION

In general, concentrations of TPH, Pesticides/PCBs, SVOCs and TCLP Metals were below laboratory detection limits. Lead concentrations were detected in soil samples collected in the southeast section (northeast portion of Tract 9ar2). Concentrations of PCB 1242 was detected in Soil Boring 2 and barium was detected in Soil Borings 5 and 9 advanced in the southwest section (Tract 9cr1). The concentrations are above the method detection limits but below NMED SSLs for residential and commercial exposed pathways.

The asbestos laboratory analysis confirmed that some of the construction debris found at the southeast and southwest corners of the site contain greater than 1.0% asbestos.

6.0 FINDINGS AND RECOMMENDATIONS

Based on the review of documentation held by the BLM office, the project area lies within an area that the BLM LCDO issued a Recreation and Public Purpose (RPP) lease to the City of Las Cruces in 1959. The CLC closed the landfill and subsequently relinquished the lease in 1966. The reviewed literature also indicates that the CLC recapped the north parts of Lots 11 and 12 to prevent trash exposure.

Based on the analytical results lead, PCB and TCLP Metals concentrations detected in the soils are below the NMED SSLs for residential and commercial exposure pathways.

Bulk samples of construction debris collected and analyzed for ACM confirmed that the construction debris on both parcels of the project area contain asbestos. Terracon recommends abating the ACM prior to use of the property. Presented below are two methods to remove or cover the ACM to prevent asbestos fiber releases.

The first alternative is to remove the surface soils that have been impacted by the ACM. This can be accomplished by excavating the ACM debris and associated soil and placing the material in roll-off bins lined six mill plastic liners. The transporter should ensure that the ACM waste is properly contained to avoid any fiber release. Additionally, the ACM waste should be appropriately labeled. The ACM waste should be hauled to a landfill that is licensed to receive asbestos waste. The authorized landfill should be notified prior to waste delivery.

The second alternative is to cover the area containing the asbestos with compacted engineered fill, free of asbestos, to provide a 24-inch final cover. To control erosion of the final cover it is recommended that the area is graded to prevent site runoff and re-vegetated.

The estimated cost for the two alternatives is presented in the following tables.

TABLE 8: ALTERNATIVE 1 – ACM/SOILS REMOVAL

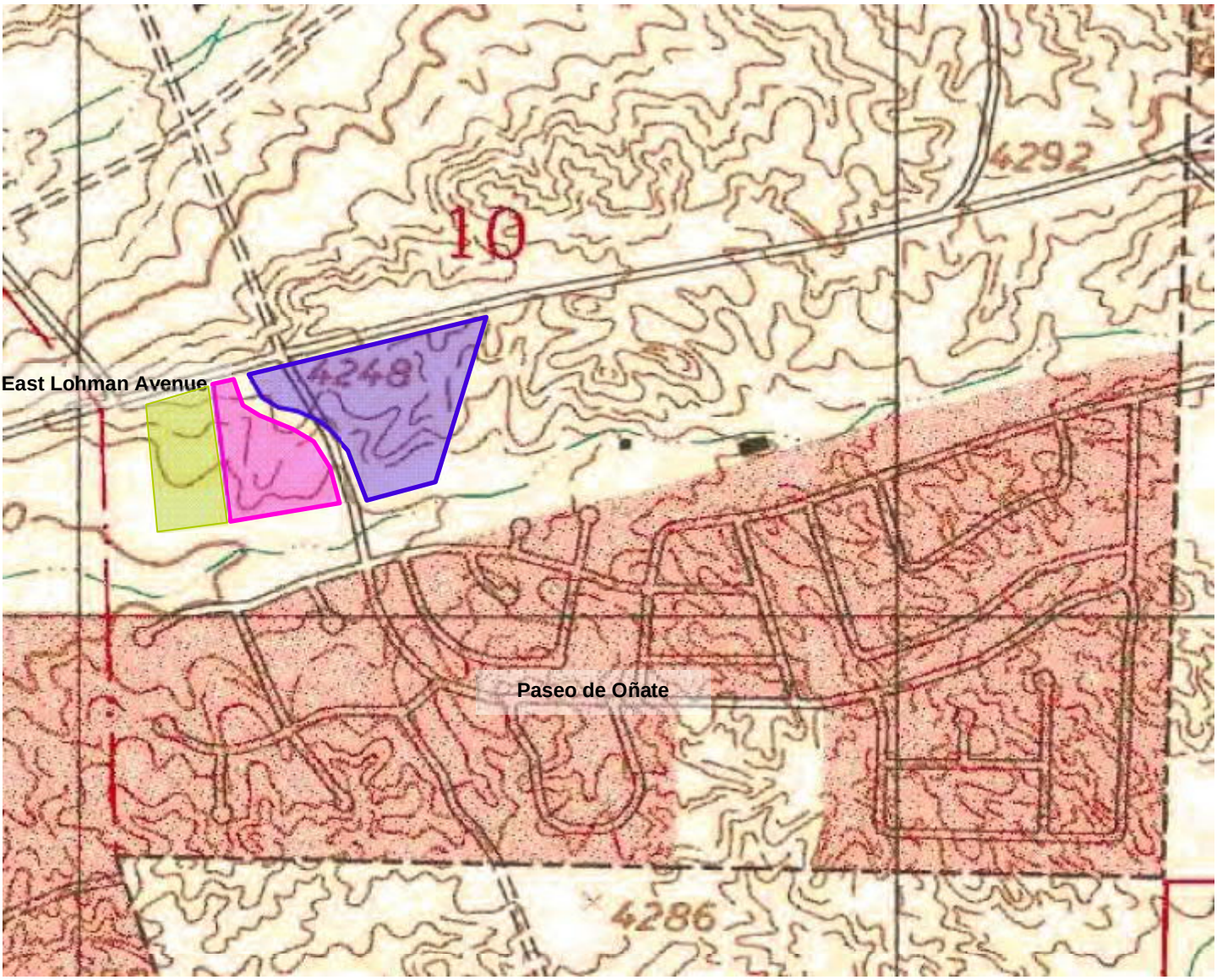
Task	Quantity*	Units	Unit Price	Amount
Mobilization/Demolition	1	Lump	$1,500.00	$1,500.00
Water Truck (2)	23	Day	$1,500.00	$34,500.00
Excavation	9,000	CY	$4.00	$36,000.00
Load	9,000	CY	$2.00	$18,000.00
Truck Bed Liner (double liner)	900	Each	$225.00	$202,500.00
Transportation & Disposal of ACM soils	9,000	CY	$57.55	$517,950.00
Delivery of Clean Fill	9,000	CY	$5.00	$45,000.00
Placement and Compaction	9,000	CY	$2.00	$18,000.00
Terracon Fee	1	Lump	$13,800.00	$13,800.00
			TOTAL	**$887,250.00**

**Estimated quantity based in the removal of 6 inches of soils on the entire 11-acre site.*

TABLE 9: ALTERNATIVE 2 - ACM ENCAPSULATION

Task	Quantity*	Units	Unit Price	Amount
Mobilization/Demolition	1	Lump	$5650.00	$5,650.00
Water Truck (2)	92	Day	$1,500.00	$138,000.00
Excavation	36,000	CY	$4.00	$144,000.00
Load	36,000	CY	$2.00	$72,000.00
Delivery of Clean Fill	36,000	CY	$5.00	$180,000.00
Placement and Compaction	36,000	CY	$2.00	$72,000.00
Terracon Fee	1	Lump	$13,800.00	$55,200.00
			TOTAL	**$666,850.00**

**Estimated quantity based on 24 inches of fill on the entire 11-acre site.*



Source: USGS 7.5-Minute Topographic Map
"Tortugas Mountain Quadrangle,
New Mexico – Doña Ana Co." dated 1996

LEGEND:

- BLM land
- SWC Section
- SEC Section

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

TOPOGRAPHIC MAP
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE LAS CRUCES,
DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon	**Project No.** 68067007
Designed By: OTHER	1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Scale:** Not to scale
Checked By: MEW		**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure1.doc		**Figure No.** 1

Source: TerraServer USA White Sands Aerial Photograph 2003.

LEGEND:

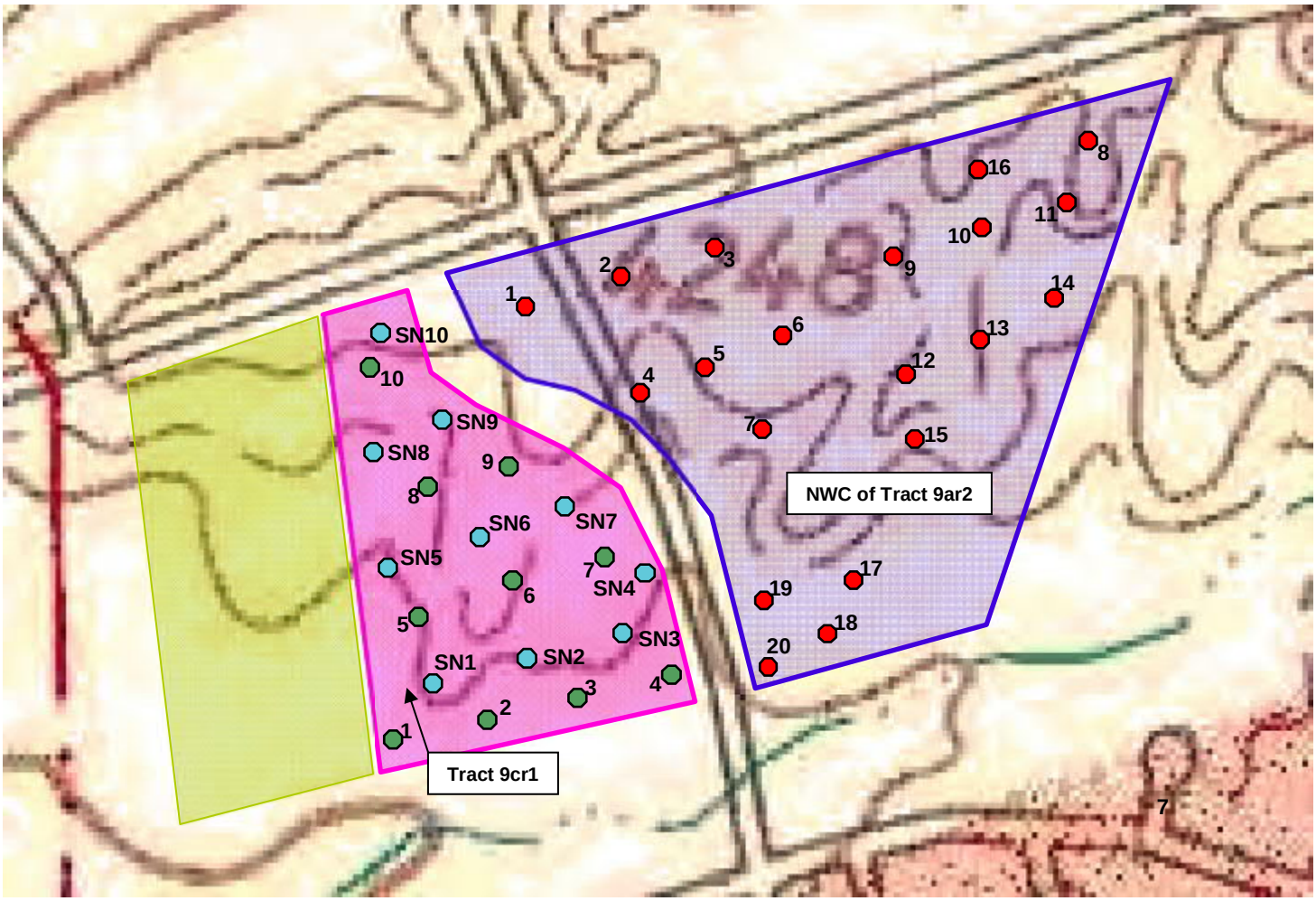
- BLM land
- SWC Section
- SEC Section

N

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

SITE DIAGRAM
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon 1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Project No.** 68067007
Designed By: OTHER		**Scale:** Not to scale
Checked By: MEW		**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure2.doc		**Figure No.** 2



Source: USGS 7.5-Minute Topographic Map
"Tortugas Mountain Quadrangle,
New Mexico – Doña Ana Co." dated 1996

LEGEND:

- Southeast Section
- Soil and ACM samples location
- Southwest Section
- Soil sample location
- ACM sample location
- BLM land

N

SOIL AND ACM SAMPLES LOCATION
LIMITED SITE INVESTIGATION
CLC OLD LANDFILL ON THE SEC AND SWC
OF LOHMAN AVENUE AND PASEO DE OÑATE
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

Project Mngr: MEW	Terracon	**Project No.** 68067007
Designed By: OTHER		**Scale:** Not to scale
Checked By: MEW	1630 Hickory Loop, Suite H Las Cruces, New Mexico 88005 505.527.1700 Fax: 505.527.1092	**Date:** 08/23/06
Approved By: MEW		**Drawn By:** CGM (68)
File Name: \68067007\Figure3.doc		**Figure No.** 3

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess
Las Cruces, New Mexico 88005
www.nm.blm.gov

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

1703 (03100)

SEP 4 2007

William C. Olsen, Chief
Ground Water Quality
Harold Runnels Building
P.O. Box 26110
Santa Fe, NM 87502-6110

Dear Mr. Olsen:

This response is in regard to your letter dated June 5, 2007, concerning the Old Las Cruces landfill. The landfill is located in T. 23 S., R. 2 E., section 10, lots 11 and 12.

The City of Albuquerque owns most of section 10 including lot 11 and part of lot 12. The remaining portion of lot 12 is Federal land administered by the Bureau of Land Management (BLM). The City of Las Cruces (CLC) operated the landfill under a Recreation and Public Purpose Act lease (lease number NM 081315) from 1959 through 1966. The landfill was capped in 1966 with a 2-foot layer of soil, and the lease with the CLC was relinquished. CLC does remain a potentially responsible party as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in that they operated the landfill from 1959 to 1966.

BLM and CLC continue to maintain the cap. In 2003, the landfill was re-capped with a 2-foot layer of soil by the BLM to correct erosion damage. The cap has since experienced erosion damage to the southwest corner. This damage is now being repaired by adding soil to the erosion channels and re-contouring as well as reseeding the surface (see Element No. 1 discussion below).

In response to the specific elements in your letter, we submit the following:

Element 1: In a pro-active response to this matter, BLM and CLC are using excess soil from a project at the Federal Courthouse to repair erosion damage on the southwest corner of the landfill cap. We are using the excess soil to repair the erosion damage by filling the erosion channels, compacting soil, stabilizing th[illegible]nd contouring the soil to prevent future erosion damage.

This action has added approximately 35,000 cubic yards of compacted soil to the cap. The addition of the soil has increased the thickness of the cap from approximately 2 feet to approximately 9 feet in the southwest corner. Soil has also been added throughout the cap to

help remedy low ponding areas that existed on the old cap. BLM is in the process of working with the CLC to hydro-seed the cap to promote growth of native vegetation and deter erosion in the future. Hydro-seeding will be down by ripping the surface to a depth of 3 inches, placing the hydro-seed and covering the seed with mulch to hold moisture to establish plant growth.

Element 2: We believe that past investigations at the landfill (including sampling events) appropriately define both the horizontal and vertical extents of the landfill (see Element 3 below).

Element 3: A post closure plan is in progress between the BLM and the CLC for the BLM-owned portion of the landfill. The post closure plan proposes a desert-style walking park to be built on the landfill. This type of a park will require minimal watering to establish natural desert landscape vegetation after which there will be no watering on the landfill cap. We feel that this type of covering on the landfill will be a sufficient, permanent cap for the landfill.

There have been various sampling events at the landfill to determine the likelihood of landfill leachate and landfill gas.

- November 19-20, 2002: SCS Engineers conducted a methane gas survey/sampling event. SCS took 32 soil boring samples and 53 samples from surrounding manholes. No trace of methane gas was detected in any of the soil samples or the manhole samples. Waste layer was determined to be 3-10 feet thick.

- February 22, 2002: Souder Miller and Associates conducted a sampling event. This event sampled for ACM, VOCs, SVOCs, TPH, Pesticides/PCBs and TCLP metals. The report showed findings of friable asbestos. Arsenic, Barium, Cadmium, Chromium, Lead and Mercury in several samples were detected above method detection levels; however, they were well below NMED soil screening levels (SSLs) as found in NMED Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, August 2005.

- June 30, 2005: Red J conducted a soil sampling event to determine existence of pesticides, asbestos, and heavy metals. They took 24 soil samples at 4 to12-foot depths and 4 samples for asbestos. There were two hits for asbestos; one showed asbestos from a transit pipe, and the second showed asbestos from floor tiles. Several of the soil samples showed hits for DDT, DDE, PCB and heavy metals that were above method detection levels, but most were below SSLs. Only one sample showed a hit of lead that was above residential levels, but well below commercial levels and NMED SSLs as found in NMED Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, August 2005.

- August 9, 2006: Terracon conducted a sampling event on behalf of the CLC. The sampling event included 40 soil borings to 5 feet with an additional 20 soil samples in the

southeast section taken at surface, 2.5 feet and 5 feet below surface. There were an additional 10 samples taken in the southwest section at the surface and 2.5 feet below surface. Some samples were above method detection levels, but well below NMED SSLs and commercial levels.

Element 4: No samples taken in the past have shown a risk of volatile or semi-volatile organic compounds (including methane) or heavy metals (see Element 3 above).

In regards to the Corrective Action Report (CAR), all involved entities are working together to determine the extent needed to sufficiently meet NMED's requirements for a long term monitoring plan.

Element 5: We believe the approach addressed in Element 1 is sufficient to address stabilization issues.

In conclusion, we would like to complete the landfill closure for beneficial use at the earliest possible time so the property can be enjoyed by the public. We are committed to establishing and maintaining a stable cover consisting of native vegetation with such amenities as to constitute a desert-style walking park for the enjoyment of the public. This project has been widely supported within the BLM, the CLC and in the Las Cruces community where open space is becoming increasingly important. We look forward to working in partnership with NMED to make this walking park a reality.

The Bureau of Land Management, City of Albuquerque, and the City of Las Cruces respectfully request an extension on the 90 day response time to adequately address the needs and requirements of the requested CAR.

If we can be of further assistance, please do not hesitate to contact David E. Jevons, Haz-Mat Coordinator, at (505) 525-4334 or at david_jevons@blm.gov.

Sincerely,

Tim L. Sanders
Assistant District Manager
Division of Multi-Resources

cc:
Batt Faris
✓ Christopher Whitman

NEW MEXICO
ENVIRONMENT DEPARTMENT

Solid Waste Bureau

Harold Runnels Building – Room 2050
1190 St Francis Dr.
PO Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0197 Fax (505) 827-2902
www.nmenv.state.nm.us

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

Certified Mail - Return Receipt Requested No. 7008 3230 0003 2811 0895

NOTICE OF VIOLATION

RESPONSIBLE PARTY: City of Albuquerque Real Property Division

ADDRESS: Mr. Scott Howell, Acting Real Property Division Administrator, P.O. BOX 2248 Albq. NM 87103

LOCATION OF VIOLATION: Parcel ID# 02-21775, Account # 34945
Map Code 4010-134-140-417, Las Cruces, New Mexico

Evidence obtained by the New Mexico Environment Department (NMED) indicates that solid waste, as documented by the City of Las Cruces Codes Enforcement via a NMED Environmental Notification Tracking System, ENTS # 5739, 8-31-2009, 9:54:56 A.M., complaint indicates that municipal solid waste has been exposed on your property along an embankment adjacent to an arroyo owned or leased by the City of Albuquerque in violation of the Solid Waste Act, § 74-9-31 NMSA, and the New Mexico Solid Waste Rules (SWR), 20.9.2.10.A(3) NMAC, which prohibits the disposal of solid waste except at an approved solid waste facility.

The NMED is seeking your voluntary cooperation in the proper disposal of this waste at an approved solid waste facility. Please contact the issuing enforcement officer at (505) 222-9589 within ten (10) days of receipt of this notice to verify corrective action. Failure to respond may result in additional enforcement action, which may include the assessment of monetary penalties.

Marco Bañales

Issuing Officer: Marco A. Bañales
Enforcement Officer, EA-I
NMED District I 5500 San Antonio Dr. NE
Albuquerque, New Mexico 87109

Date: September 2, 2009

Record Number: ENTS 5739

[X] Violator [ ] Officer [ ] Enforcement Office

RECEIVED
SEP 8 2009
CITY ATTORNEY'S OFFICE
LEGAL DEPARTMENT

Environmental Notification Tracking System

View Notification

Back to list

Notification Id	5739
Notification Type	Dumping (solid waste, drums or containers, illegal)
Notification Date	8/31/2009 9:54:56 AM
Notification Priority	High
EJ Issue	
Status	Notice of Violation Issued
Assigned Bureau	Solid Waste Bureau
Assigned Staff	Banales, Marco
Status Date	9/2/2009 10:37:00 AM
Description	Old landfill on property in Las Cruces owned by the City of Albuquerque adjacent to residential area has waste and trash exposed by arroyo through property.
Location	On several acre lot located near intersection of Paseo de Onate and Pinnacle View, just East of outer Lohman Avenue, in Las Cruces
Nearest City	Las Cruces
County	Dona Ana
District	III
Field Office	Las Cruces
Suspected Violator	City of LAs Cruces (property supv. Scott Howell)
Violator Address1	
Violator Address2	
Violator City	Allbuquerque
Violator State	New Mexico
Violator Zip	
Violator Phone	505-768-4500
Reporter Name	Officer Vincent Pettes
Reporter Address1	City of Las Cruces Codes Enforcement
Reporter Address2	
Reporter City	Las Cruces
Reporter State	New Mexico
Reporter Zip	88001
Reporter Phone	575-528-4502
Reporter Email	VPettes@las_cruces.org
Created By	FRANK.FIORE
Date Created	8/31/2009 1:58:38 PM

APPENDIX D

SAFETY AND HEALTH PLAN
INTRUSIVE SITE ASSESSMENT
FORMER MUNICIPAL SOLID WASTE LANDFILL
CITY OF LAS CRUCES, NEW MEXICO

Terracon Project No. 68107011

1.0 INTRODUCTION

This Site Safety and Health Plan (Plan) will govern the activities of all Terracon personnel conducting intrusive assessment of solid waste landfill facilities. The purpose of this plan is to prevent adverse health effects from potential contaminants and safety hazards which may be present at this site.

Subcontractors engaged in project activity at this site will comply applicable provisions of the Occupational Safety and Health Act of 1970, the safety and health requirements set forth in Occupational Safety and Health Administration regulation 29 CFR 1910.120, where applicable, and any applicable state, city or local safety codes. Each subcontractor will be responsible for supplying a competent person to oversee the work they perform at this project site. The competent person for each subcontractor will bear primary responsibility for utilizing equipment and work practices necessary to protect the safety of the subcontractor's employees engaged in activities at this project site.

The subcontractor will maintain an orderly and safe work area around drilling/probe/excavation equipment to minimize the potential for accidents. In addition, the subcontractor will provide whatever safety barricades or warning devices are deemed necessary by Terracon to prevent accidents or injury to field personnel and the general public.

Subcontractors engaged on this project site may utilize this site Safety and Health Plan for their employees, or each subcontractor may develop and utilize their own site Safety and Health Plan provided the provisions of the subcontractor's site Safety and Health Plan are at least as stringent as the requirements contained in this Plan. Decisions regarding equivalence of safety and health requirements will be made by Terracon Project Manager and Corporate Safety and Health Manager. Adoption of this Site Safety and Health Plan by subcontract employers shall not relieve any site subcontractor for the responsibility for the health and safety of its employees.

2.0 SAFETY AND HEALTH ADMINISTRATION

The Project Manager is ultimately responsible for seeing that work on this project is performed in accordance with the safety and health provisions contained in this Plan. The designated Site Safety and Health Officer (SSO) will monitor compliance with this Plan during field activities. All field team members engaged in project activities will be required to sign the "Acknowledgment of Instruction" form included with this Plan. The SSO will maintain a copy of this Plan on site for the duration of project activities.

Terracon and subcontractor task leaders will be responsible for:

- Providing subordinate personnel a copy of this Plan, and briefing them on its content.
- Enforcing the applicable provisions of this Plan.
- Inspecting and maintaining equipment in compliance with applicable federal, state or local safety regulations.
- Enforcement of corrective actions.
- Investigation of accidents or injuries.

The following individuals will be responsible for implementation and enforcement of the Plan:

TITLE	NAME	PHONE
Project Manager:	Carina G. Munoz-Ortega	575-527-1700
Terracon Safety and Health Manager:	Gary K. Bradley, CSP, CHMM	913-599-6886
Site Safety and Health Officer:	Carina G. Munoz-Ortega	575-527-1700
Terracon Task Leader(s):	Mary E. Wells, P.E	575-527-1700
Subcontractor Task Leader:	Daniele Berardelli	915-886-4355

If hazardous conditions develop during the course of project activity, the SSO will consult the Corporate Safety and Health Manager and coordinate actions required to safeguard site personnel and members of the general public. Additional safety measures will be verbally communicated to all project personnel, recorded in writing and appended to this Plan.

3.0 MEDICAL SURVEILLANCE REQUIREMENTS

Subsurface contamination may be encountered during the course of this investigation. All Terracon personnel participating in this project shall be enrolled in a health monitoring program in accordance with the provisions of OSHA 29 CFR 1910.120 and 1910.134. Each project participant shall be certified by a Doctor of Medicine as fit for respirator and semi-permeable/impermeable protective equipment use. All personnel shall have received an environmental physical examination within one year prior to the start of project activities. The content of acceptable physical examinations will be determined by a consulting physician. Follow-up medical examinations will also be provided in the event of job site injury or unprotected exposure to contaminants in excess of eight-hour time weighted average permissible exposure limits. Certificates of medical examination will be maintained by the Corporate Safety and Health Manager.

4.0 EMPLOYEE TRAINING REQUIREMENTS

All Terracon personnel participating in this project must have completed 40 hour Hazardous Waste Operations Training and at least three days of supervised field activity per requirements of OSHA 29 CFR 1910.120. In addition, a current 8-hour annual refresher training certificate will be required for all personnel. Training certificates for all project personnel will be maintained by the Corporate Safety and Health Manager and/or the SSO at the project command center. The SSO and at least one other Terracon site participant shall maintain a current certification in basic First Aid training as provided by the American Red Cross or US Bureau of Mines.

Prior to the start of site activities, all Terracon project personnel will participate in a pre-project safety and health briefing outlining the contents of this Plan. The personnel responsible for project safety and health will be addressed, as will site history, scope of work, site control measures, emergency procedures and site communications. Daily "tailgate" safety and health briefings will be presented by the SSO at the start of each work day. Records of safety and health briefings will be maintained for the duration of this project.

5.0 SITE HISTORY/SCOPE OF SERVICES

The project site is a solid waste landfill which has served the community of Las Cruces. Terrain surrounding the site is relatively flat, etc. and access will be via existing, active roadways, etc. The landfill has been closed for several years. Terracon personnel will mobilize to the former City of Las Cruces landfill site to conduct the following services:

- Soil borings and sample collection within probable fill areas. Borings will also be conducted outside fill materials in attempting to delineate the horizontal extent of fill areas.

Anticipated site activities governed by this Plan will require approximately 2 days for completion.

6.0 HAZARD ASSESSMENT

The former City of Las Cruces landfill site has been out of operation for several years. Complete records of wastes buried at this landfill are not available. Although it is not believed that drummed chemical wastes have been deposited in the landfill, their presence cannot be ruled out. Buried solid wastes such as agricultural chemicals, automotive and paint-related compounds and solvents, discarded batteries, etc. may be encountered during soil boring activities. Drilling personnel will remain alert to staining of drill tools, the presence of granular materials, chemical odors or other signs of subsurface encounters with potentially hazardous

materials. Impermeable gloves will be donned prior to handling drilling tools which are suspected to have encountered subsurface contaminants.

Site personnel performing soil borings at this project site may be exposed to biological, as well as slip, trip and fall hazards as outlined below. Air monitoring as outlined below will only be required during boring in proximity to fill areas. All Terracon personnel who mobilize to the project site will wear Level D personal protective equipment consisting of a standard work uniform, abrasion resistant gloves (leather, heavy PVC), safety footwear (ANSI-Z41) and hard hat. Additional requirements for air monitoring and personal protective requirements for personnel engaged in intrusive operations are outlined below.

6.1 Physical Hazards

Activities to be performed on site will involve hydraulic probing operations and perhaps powered drilling equipment. Personnel must remain aware that as personal protective equipment increases, dexterity and visibility may be impacted and performing some tasks may be more difficult. Tape all loose protective clothing to avoid entanglement in drilling/probing equipment. Before drilling or hydraulic soil probing proceeds, underground utilities must be located and marked. Other drilling/probing safety precautions to be observed include the following:

- All personnel working around drill rigs will be familiarized with emergency shut-down procedures and the position of "kill" switches.
- No loose fitting clothing, jewelry or unsecured long hair is permitted near the rig.
- Keep hands and feet away from all moving parts while drilling is in progress. Shovel auger cuttings with long handled shovel DO NOT use hands or feet.
- Daily inspection of all ropes, cables and moving parts is mandatory.
- A first aid kit and fire extinguisher will be immediately available at all times.
- All drill crews shall consist of at least two persons.
- No drilling is permitted during impeding electrical storms, tornadoes or when rain creates a hazardous work environment.
- Keep drill rig at least 10 feet from all overhead power lines; use spotters to help rig operator maneuver vehicle.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of site materials is prohibited in the exclusion zone.

- Before raising the drill mast, walk completely around the rig and ensure that minimum clearance distance of 10 feet is maintained from the nearest power line.

- Drill rigs will not be moved with the mast in the upright position.

- If drilling must be performed less than 10 feet from overhead power lines, the local utility must be contacted.

Other physical hazards which may be present on this project site include:

- Back injuries due to improper lifting - Use proper lifting techniques. Lift with the legs, not the back. Keep loads close to the body and avoid twisting. Loads heavier than 50 pounds (lbs) require a second person or mechanical device for lifting. Use mechanical devices such as drum dollies, hand trucks, and tool hoists (for lifting augers) to lift or move heavy loads whenever possible.

- Ergonomic Stress - Lift carefully with load close to body with the legs taking most of the weight. Get help with lifts greater than 40 lbs. When working with a heavy tool or object, keep legs under the load and do not overreach or twist to the side. Reposition body to be more square to the load and work. Push loads, rather than pull, whenever feasible. Do not persist with lifting when the load is too heavy. Use a mechanical lifting aid or have a coworker assist with the lift. Rotate repetitive tasks to avoid soft-tissue fatigue.

- Falls From Elevated Surfaces - Protect employees from falling off surfaces that have a side or an edge that is 6 ft or more above a lower level. Provide a safety harness and shock-absorbing lifeline or adequate fall protection where applicable. Employees must wear them when working 6 ft or higher above the platform or main work deck. Install either a guardrail system or fall arrest system that conforms to 29 CFR 1926.502 (d) and is approved by the American National Standards Institute.

- Fire and Explosion - Make ABC fire extinguishers accessible in the work area. Store flammables in Underwriter's Laboratory and Occupational Safety and Health Administration (OSHA) approved metal safety cans equipped with spark arrestors. Store flammable containers more than 50 ft from possible ignition sources. Keep exhaust equipment powered by internal combustion engines well away from flammables and combustibles. Secure hot work permits/approvals before welding or cutting. Store and use compressed gases in a safe manner. Never refuel equipment (e.g., generators) while it is in operation or hot enough to ignite fuel vapors. Conspicuously mark operations that pose fire hazards "No Smoking" or "Open Flames." Remove trash, weeds, and unnecessary combustibles from the Exclusion Zone (EZ). Transfer of potentially flammable liquids will be conducted with intrinsically safe pumping equipment. Drums will be bonded and grounded prior to transfer of potentially flammable liquids.

- Vehicles - Obey all site traffic signs and speed limits. Seat belts must be functional and in use during operation of any site vehicles (including rentals). Operator shall regularly inspect the vehicle for defective parts, such as brakes, controls, motor, chassis and drives. Always be aware and stay alert to traffic around the work area.

- Inclement Weather – The project may be shutdown by the SSO during the following inclement weather conditions: poor visibility; precipitation severe enough to impair safe movement or travel; lightning in the immediate area; steady winds in excess of 40 mph; or, other conditions as determined by the SSO or Corporate Safety and Health Manager. Work will resume when the conditions are deemed safe by the SSO.

- Noise - Wear hearing protection when speech becomes difficult to understand at a distance of 10 ft and while standing within 20 to 25 ft from heavy equipment, pneumatic power tools, steam cleaners, and other equipment in operation that can generate more than 85 decibels (A-weighted scale) (dBA).

- Slips, Trips, and Falls - Clear work area of obstructions and debris before setting up. Alter work areas as necessary to provide a safe, reasonably level area. All walking and working surfaces shall continually be inspected and maintained to be free of slip, trip, and fall hazards. Keep platforms, stairs, and immediate work areas clear. Do not allow oil, grease, or excessive mud to accumulate in these areas. Eliminate slip, trip, and fall hazards or identify them clearly with caution tape, barricades, or equivalent means. Store loose or light material and debris in designated areas or containers. Secure tools, materials, and equipment subject to displacement or falling.

- Traffic Control - If site activities interrupt the normal flow of pedestrian or vehicular traffic, barricades and warning signs which comply with the Manual on Uniform Traffic Control Devices and/or State or local ordinances will be erected around affected equipment. Safety orange work vests will be worn by personnel working within 10 feet of any active roadway. All borings or partially completed groundwater monitoring wells will be adequately covered and/or barricaded if left unattended for any period of time.

6.2 Biological Hazards

In addition to the chemical contaminants identified in site groundwater, disease-causing microorganisms (bacteria, fungus, viruses, molds) may exist in decaying organic materials which may be present in fill materials. Illness may result from inadvertent ingestion of these microorganisms. Partially buried sharp or jagged debris, broken glass and rusty metal pose trip, puncture and potential laceration hazards. Safety footwear is MANDATORY for this project. Landfills attract rodents, wild dogs, raccoons and other wild animals which could bite or carry diseases. Do not approach animals on any landfill site. Decaying organic material in fill areas will potentially yield flammable methane gas. Off-gassing of methane generated in sub-surface fill areas can also bring organic vapors from buried chemical substances to the surface. Due to the potential presence of methane being liberated to the surface during drilling and excavation in fill areas, smoking is banned while within 50 feet of fill areas on landfill projects.

6.3 Methane

Methane is a non-toxic, colorless, odorless and tasteless gas. Methane is lighter than air. Methane is produced by the anaerobic decomposition of organic matter. Methane is considered a simple asphyxiant (i.e., is toxic only in its ability to displace normal oxygen. Methane is extremely flammable; the explosive range is indicated below.

- **Lower Flammable Limit--5% (concentration in air)**
- **Upper Flammable Limit--15% (concentration in air)**

Activities to be performed on site will involve truck-mounted drill rigs. Personnel should be aware that as personal protective equipment increases, dexterity and visibility may be impacted and performing some tasks may be more difficult. Personnel must remain outside the swing radius backhoes at all times. Operators will ascertain the direction of prevailing winds at each boring location. Drill rigs will be positioned to the upwind side of each proposed bore hole.

7.0 Air Monitoring Requirements

The designated Site Safety Officer will ensure that both a photoionization detector (PID) and a combustible gas indicator are mobilized to the landfill project site on each day of boring activity.

The combustible gas indicator (CGI) and photoionization detector will be calibrated in accordance with manufacturers instructions daily prior to use. The CGI will be calibrated to 50% LEL methane calibration gas. Photoionization detectors will be calibrated with isobutylene calibration gas (100--250 ppm). A response factor of 1.0 will be used during calibration and field operation of photoionization detectors used on this project site. Operators manuals will accompany each instrument to the project site.

7.1 Organic Vapors

Frequent photoionization detector readings will be taken in the breathing zone of site personnel during soil boring activities. If sustained (> 5 minutes continuous) breathing zone OVM readings exceed **5 ppm** above background or if any unusual chemical odors are noted, personnel will don full face air purifying respirators as described below.

Respirators will be equipped with combination organic vapor/HEPA cartridges. If sustained breathing zone readings photoionization detector readings exceed **25 ppm**, personnel will move to the upwind side of the project site and contact the Safety and Health Manager to report conditions and to discuss enhanced monitoring and personal protective equipment.

7.2 Methane Monitoring

CGI readings will be taken at the bore hole and in the work zone during advancement of each soil boring. **If CGI readings at the bore holes exceed 20% of the Lower Explosive Limit (LEL), discontinue drilling and allow the boring to vent.** Eliminate any possible ignition

sources in the vicinity. After approximately 5 minutes, repeat CGI reading. If CGI readings have fallen below 20% LEL, drilling may proceed with caution and continuous combustible gas monitoring. If CGI readings fail to move below 20% LEL after venting for 10-15 minutes, establish fans to blow vapors away from hot parts of drill rig and continue drilling with continuous combustible gas monitoring at the borehole.

7.3 Engineering Control Measures

In an effort to reduce the concentration of organic vapors and/or methane in the work zone around the bore hole, high volume fans (>2,000 CFM) will be utilized at each proposed boring location where sustained photoionization detector or combustible gas indicator readings above the borehole exceed the action levels specified above. The SSO will determine the direction of the prevailing wind at each proposed boring location. The drill rig will be position perpendicular to the prevailing wind and the high volume fan will be established approximately 4 feet to the upwind of the bore hole. Caution must be taken to maintain the fan at a distance adequate to prevent inadvertent contact by site personnel. The fan must be positioned such that vapors/landfill gases liberated during soil boring are directed DOWNWIND, and away from the operator and operator controls. Periodic photoionization detector monitoring of the breathing zone atmosphere will then be conducted to determine the adequacy of engineering control efforts and potential need for respiratory protection.

8.0 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

Intrusive site activities may begin in **LEVEL D** personal protective equipment to include:

- **Standard Work Uniform**
- **Hard Hat**
- **Rubberized Safety Foot Wear (Steel Toe/Shank per ANSI Z-41)**
- **Impermeable Gloves (PVC, Neoprene or Nitrile)**
- **Safety Eye Wear (ANSI Z-87 approved)**

If organic vapor (PID) readings during intrusive site activities exceed the action level of 5 ppm specified above, site personnel will upgrade to **LEVEL C** personal protective equipment to include:

- **Full Face Air Purifying Respirators equipped with**
- **Combination Organic Vapor/Acid Gas/HEPA cartridges**

9.0 SITE CONTROL

The area within a 20 foot radius of each boring will be considered the site contaminant zone. Anyone entering this area must be wearing the appropriate personal protective equipment as

described in this plan or any addendum to this plan. Personnel entering the contaminant zone must have the authorization of the Terracon SSO. All personnel allowed within the contaminant zone must meet the training and medical surveillance requirements of OSHA 29 CFR 1910.120 (see Section 3.0 and Section 4.0 of this Plan).

Safety cones, barrier fencing or barrier tape will be established at the 20 foot radius if the use of such barricade could reasonably prevent unauthorized access of, and potential injury to, non-authorized personnel. No eating, drinking or smoking will be permitted in either the contaminant or contaminant reduction zones.

10.0 DECONTAMINATION

10.1 Personnel Decontamination

Personnel decontamination is necessary on all potentially contaminated intrusive projects. Personnel decontamination for this project will consist of washing off safety footwear, proper cleaning or disposal of outer and inner gloves and thorough washing of face, arms and hands. A full body shower will be required as soon as possible upon leaving the project site. Expendable personal protective equipment will be placed in plastic trash bags, sealed and disposed of per client agreement. Decontamination solutions will be containerized or disposed of as arranged by Project Manager.

10.2 Equipment Decontamination

Decontamination of equipment will be performed to limit the migration of contaminants off-site. All equipment will be cleaned prior to site entry to remove grease, oil and encrusted soil. Decontamination of large equipment will consist of physically removing gross contamination with shovels, brushes etc. followed by detergent and water high pressure wash with a clean water rinse. Cuttings and decontamination fluids will be handled as outlined in the project work plan.

11.0 SITE COMMUNICATIONS

Communication between personnel within the Exclusion Zone will be via verbal communication or hand signals. Visual contact between members of task teams should be
possible throughout the course of project activities. Contact with the SSO will be through direct verbal communication. The hand signals listed below will be used by personnel wherever respiratory protection and/or equipment noise limit verbal communication.

Signal	Meaning
Thumbs Up	OK, all is well
Grab throat with both hands	Can't breathe
Shake head, thumbs down	NO, negative
Point right (When facing equipment operator)	Move/steer left
Point left (When facing equipment operator)	Move/steer right
Grab partner's wrist	Leave area immediately

12.0 EMERGENCY RESPONSE PROCEDURES

12.1 Emergency Notification

The Project Manager is responsible for obtaining and recording the following emergency information prior to site mobilization:

Nearest Hospital/Clinic: Mountain View Regional Medical Center Phone: 575-556-7600

Estimated Drive Time: 15 minutes

Directions From Site: (ATTACH SITE DIAGRAM)
West approximately 500 feet
North approximately 1,200 feet
East approximately 2,100 feet

EMERGENCY TELEPHONE CONTACTS

Ambulance:	**911**
Fire Department:	**911**
Police:	**911 or 575-526-0795**
Project Manager:	**575-527-1700**
Safety and Health Manager:	**(913) 599-6886**

12.2 Emergency Equipment

The Site Safety Officer will ensure that at least one 10# B/C-rated fire extinguisher is mobilized to the project site during intrusive activity. In addition, a 10-unit (minimum) first aid kit and a supply of clean water will be immediately available at the project site at all times.

12.3 Personal Injury

For minor injuries, such as cuts, burns, exhaustion, heat cramps, insect stings, etc., the affected employee will be removed to an uncontaminated area. The SSO or other designated employee will administer appropriate first aid. All lacerations, abrasions or punctures incurred on landfill project sites must be cleaned, disinfected and bandaged as soon as possible. If the injury warrants additional medical attention (lacerations requiring sutures, direct puncture wounds, etc.) , the wounds will be disinfected and bandaged and the employee will be transported to the nearest hospital or emergency medical facility.

For injuries which may involve spinal injuries, the Site Safety Officer or designee will summon an ambulance to the project site. No attempt will be made by Terracon personnel to move the victim without the aid and/or instructions of qualified medical personnel. In the absence of toxic gases or vapors, the ambulance will be directed to the affected employee. If site conditions

warrant and as time permits, the wheels of the ambulance will be decontaminated with high pressure wash.

The SSO or designee will accompany the ambulance to the medical facility, and provide guidance concerning additional decontamination which may be required for the injured employee, ambulance or attendants. If rescuer(s) assess that the victim cannot be removed without a stretcher or other specialized equipment, the victim will be removed at the earliest possible moment by appropriately attired Terracon personnel with the direction and/or assistance of qualified medical response personnel. The injured employee will be immediately decontaminated and transported to the nearest medical facility. A crew member designated by the SSO will inform the ambulance crew of known site contaminants and will provide assistance with decontamination if required.

13.0 DRILLING SAFETY PROCEDURES

All personnel working in proximity to a drill rig will be familiarized with the location and operation of emergency kill switches prior to equipment start-up.

Because heavy equipment can create major hazards at the job site, the following procedures shall be followed during soil boring activities: Personnel are advised that as the level of personal protection increases, mobility, visibility and communication may become impaired.

- Prior to mobilization to the project site, all underground utilities will be located and properly marked.
- No loose fitting clothing, jewelry or unsecured long hair is permitted near the rig.
- Keep hands and feet AWAY from all moving parts while drilling is in progress. Persons shall not pass under or over a moving stem or auger.
- Daily inspection of all ropes, cables and moving parts is mandatory.
- A first aid kit and fire extinguisher (10 # class B/C, minimum) will be available at all times.
- All crews shall consist of at least two persons.
- No drilling is permitted during impeding electrical storms, tornadoes or when rain or icing creates a hazardous work environment.
- Keep drill at least 10 feet from all overhead power lines; use spotters to assist driver in positioning rigs when overhead powerlines or other obstructions are near.
- Personnel are not allowed on a mast while the auger is in operation.

- When a drill rig is moved from one location to another, drill steel, tools and other equipment shall be secured and the mast placed in a safe position.

- Bore holes large enough to constitute a hazard shall be plugged, covered or barricaded to prevent injury.

SAFETY AND HEALTH PLAN

MUNICIPAL LANDFILL CONTRACT DRILLING SERVICES
FORMER CITY OF LAS CRUCES LANDFILL

Terracon Project No. 68107011

TERRACON
Las Cruces, New Mexico
October 4, 2010

Rev. 4/99

APPENDIX E

Photo #1 Eroded area on north side of tract 9AR2, exposing drebis.

Photo #2 Test pit 3, debris.

Photo #3 Test pit 4, debris.

Photo #4 Test pit 5, clean.

Photo #5 Test pit 6, minor debris.

Photo #6 Test pit 12, debris.

Photo #7 Test pit 13, debris.

Photo #8 Test pit 14, debris.

Photo #9 Test pit 15, debris.

Photo #10 Test pit 2, minor debris.

Photo #11 Test pit 1, minor debris.

Photo #12 Arroyo on Parcel 02-21775.

ATTACHMENT 8

Terracon 2016 Limited Site Investigation Report

Draft Limited Site Investigation

Old City Landfill

SEQ of East Lohman Avenue and Roadrunner Parkway

Las Cruces, New Mexico

September 22, 2016

Terracon Project No. 68165115

Prepared for:

City of Las Cruces

Solid Waste Operations

Las Cruces, New Mexico

Prepared by:

Terracon Consultants, Inc.
Las Cruces, New Mexico

Terracon

September 22, 2016

City of Las Cruces
Solid Waste Operations
680 North Motel Boulevard
Las Cruces, New Mexico 88004

Attn: Mr. Klaus Kemmer, Solid Waste Operations Administrator
P: 575.528.3543
F: 575.528.3513
E: kkemmer@las-cruces.org

Re: Limited Site Investigation
Old City Landfill
SEQ of East Lohman Avenue and Roadrunner Parkway
Las Cruces, Dona Ana County, New Mexico
Terracon Project No. 68165115

Dear Mr. Kemmer:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Limited Site Investigation (LSI) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal No. P68167055 dated June 20, 2016.

Terracon appreciates the opportunity to be of continued service to the City of Las Cruces. If you have any questions or comments pertaining to the material presented herein, please contact the undersigned at 575.527.1700

Sincerely,
Terracon Consultants, Inc.

DRAFT
J. Kyle Williams
Project Scientist

DRAFT
James D. Cosper, P.E.
Office Manager

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Exhibit 1: Site Location
Exhibit 2: Site Diagram
Exhibit 3: Waste Areas, Borings, Test Pits
Exhibit 4: Northeast Waste Area
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Exhibit 6: Central Waste Area
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LIMITED SITE INVESTIGATION
OLD CITY LANDFILL
SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, NEW MEXICO

Terracon Project No. 68165115
September 22, 2016

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a Limited Site Investigation (LSI) of the approximate 25 acre tract of land in the southeast quadrant (SEQ) of East Lohman Avenue and Roadrunner Parkway in Las Cruces, Doña Ana New Mexico. The site location is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. Site Diagrams of the site are included as Exhibits 2, 3, 4, 5, 6 and 7 of Appendix A.

1.1 Site Description

Site Name	Old City Former Landfill
Site Location/Address	Southeast Quadrant (SEQ) of East Lohman Avenue and Roadrunner Parkway
Land Area	Approximately 25 acres
Site Improvements	Undeveloped

1.2 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

1.3 Additional Scope Limitation

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of

hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.4 Reliance

This LSI report has been prepared for the exclusive use and reliance of City of Las Cruces. Use or reliance by any other party is prohibited without the written authorization of the City of Las Cruces and Terracon.

Reliance on the LSI by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

1.5 Previous Investigation

On September 20, 22 and 23, 2010, and December 17, 2012, Terracon's field crew investigated the subsurface soils of the site to approximate the boundaries of the former landfill for the City of Albuquerque, New Mexico (Terracon Project No. 68107011). A total of 24 test pits were excavated using a backhoe to approximate the boundaries of the former landfill. The thickness of the cover material and buried waste were observed and recorded. The general composition of the waste was also characterized during the field exploration. The City of Albuquerque released the results of this investigation to the City of Las Cruces to assist in further characterization of the approximate extent and volume of landfill waste at the site.

2.0 SITE INVESTIGATION

2.1 Field Activities

On August 31 and September 2, 2016 Terracon installed a total of 30 borings at the site to more accurately define the horizontal and vertical extent of buried waste. Some of the locations were changed during our field activities, as a result of accessibility and observations during the field investigation. The borings were backfilled with the excavated materials immediately upon completion.

The borings were advanced to depths ranging between 3 feet and 20 feet below ground surface (bgs). The purpose of the borings was to approximate the boundaries of the former landfill, record the observed thicknesses of the cover material, record the observed thickness of the waste, and characterize the general composition of the waste.

2.2 Field Observations

A total of 30 borings were advanced at the site, of which, 15 encountered waste materials. The observed buried waste ranged in thickness from 1 to 13 feet, and the observed cover material ranged in thickness from 1 to 7 feet bgs. The remaining borings did not appear to contain waste materials.

Buried waste encountered during installation of the borings was observed to consist of household waste mixed with minor amounts of construction debris. Cover material appeared to consist of mixed fine- to medium-grained sand with varying amounts of silt, and included minor amounts of household waste and construction debris.

3.0 FINDINGS

Terracon evaluated the findings of the 30 soil borings advanced in August and September 2016 and the test pits excavated in 2010 and 2012 to estimate the horizontal and vertical extent of buried waste at the site. Based on the observations and locations of the borings and test pits, there appears to be four distinct locations at the site that contain buried waste. These areas, depicted on Exhibit 3 in Appendix A, are designated the northeast (NE), southeast (SE), central (C) and southwest (SW). The approximate square feet (SF) and acres that each area occupies are as follows; NE, 175,810 SF or 4.04 acres; SE, 99,640 SF or 2.28 acres; C, 97,600 SF or 2.24 acres, and; SW, 161,900 SF or 3.72 acres.

One test pit, TP-6, was observed to contain approximately 1.5 feet of buried waste, and is located outside of the four waste areas described above. Soil borings installed near T-6 did not encounter buried waste. The buried waste at T-6 is assumed to be of limited lateral extent, and has been excluded from waste volume calculations described in Section 4.0 of this report. The following tables summarize the findings and observations of soil borings and test pits installed at the site:

Soil Borings Installed August and September 2016

Boring No.	Total Depth	Approximate Waste Depth	Approximate Waste Thickness	Type[1]	Latitude	Longitude	Waste Area
B-1	10'	None			32.32323	-106.72517	
B-2	10'	None			32.32229	-106.72511	
B-3	10'	None			32.32195	-106.72508	
B-4	10'	None			32.32224	-106.72574	

Boring No.	Total Depth	Approximate Waste Depth	Approximate Waste Thickness	Type[1]	Latitude	Longitude	Waste Area
B-5	15'	5'-11'	6'	H	32.32309	-106.72559	NE
B-6	15'	7'-10'	3'	H	32.32220	-106.72690	NE
B-7	15'	3'-8'	5'	H	32.32207	-106.72711	NE
B-8	3'	None			32.32285	-106.72672	
B-9	3'	1'-2.5'	1.5'	H	32.32256	-106.72718	NE
B-10	10'	4'-5'	1'	H	32.32206	-106.72639	NE
B-11	10'	2'-4'	2'	H	32.32158	-106.72624	SE
B-12	10'	None			32.32144	-106.72683	
B-13	10'	None			32.32132	-106.72706	
B-14	10'	None			32.31984	-106.72698	
B-15	10'	None			32.32077	-106.72744	
B-16	10'	None			32.32084	-106.72797	
B-17	10'	None			32.31992	-106.72750	
B-18	10'	None			32.32069	-106.72858	
B-19	10'	3'-4'	1'	H	32.32011	-106.72974	SW
B-20	10'	None			32.31989	-106.72930	
B-21	20'	4'-17'	13'	H	32.31955	-106.72894	SW
B-22	10'	3'-10'	7'	H	32.31904	-106.72926	SW
B-23	10'	3'-7'	4'	H	32.31938	-106.72935	SW
B-24	15'	7'-10'	3'	H	32.31908	-106.72844	SW
B-25	10'	5'-6'	1'	H	32.32291	-106.72591	NE
B-26	15'	4'-15'	11'	H	32.32287	-106.72543	NE
B-27	10'	3'-5'	2'	H	32.32010	-106.72810	C
B-28	10'	3'-5'	2'	H	32.32077	-106.72672	SE
B-29	3'	None			32.32319	-106.72565	
B-30	3.5'	None			32.32299	-106.72606	

1 – C-construction debris, H-household waste

Test Pits Installed September 2010 and December 2012

Test Pit No.	Total Depth	Approximate Waste Depth	Approximate Waste Thickness	Type[1]	Latitude	Longitude	Waste Area
TP-1	5'	3' +	2'	H	32.32265	-106.72619	NE
TP-2	8'	1' to 7.5'	6.5'	H	32.32246	-106.72696	NE
TP-3	13.5'	6" +	13'	H	32.31900	-106.72874	SW

Test Pit No.	Total Depth	Approximate Waste Depth	Approximate Waste Thickness	Type[1]	Latitude	Longitude	Waste Area
TP-4	10'	6" to 10'	9.5'	H	32.31891	-106.72912	SW
TP-5	5'	None			32.31954	-106.72775	
TP-6	7'	6" to 2'	1.5'	H	32.31983	-106.72648	
TP-7	5'	None			32.32090	-106.72715	
TP-8	5'	None			32.32191	-106.72681	
TP-9	5'	None			32.32206	-106.72550	
TP-10	5'	None			32.32178	-106.72738	
TP-11	8'	6" to 4'	3.5'	C, H	32.32077	-106.72852	C
TP-12	7'	1' to 4.5'	3.5'	C, H	32.32068	-106.72782	C
TP-13	10'	6" to 6'	5.5'	C, H	32.32039	-106.72759	C
TP-14	8'	6" to 6.5'	6'	H	32.32111	-106.72612	SE
TP-15	8'	6" to 6'	5.5'	H	32.32049	-106.72669	SE
TP-16	5'	None			32.32025	-106.72642	
TP-17	5'	None			32.31985	-106.72754	
TP-18	5'	None			32.32325	-106.72527	
TP-19	7'	0 to 5'	5'	C	32.32034	-106.72828	C
TP-20	6'	None			32.32106	-106.72890	
TP-21	5'	None			32.32228	-106.72498	
TP-22	5'	None			32.32091	-106.72583	
TP-23	5'	None			32.32057	-106.72593	
TP-24	5'	None			32.31990	-106.72611	

1 – C-construction debris, H-household waste

4.0 VOLUME ESTIMATES

Estimates of the volumes of buried waste and of cover material are provided for each of the four waste areas identified during the field activities. Volume estimates were derived by determining the average thickness of each material observed in soil borings and test pits within each waste area, and multiplying the average thickness (in feet, F) by the assumed SF of each waste area (NE, SE, C and SW). These volumes are reported in cubic feet (CF) and cubic yards (CY). The volume estimates are based on field observations and the assumptions listed above, and are not modified by application of a safety factor. These estimates of volume of cover and buried waste are shown below:

Buried Waste Volume Estimates

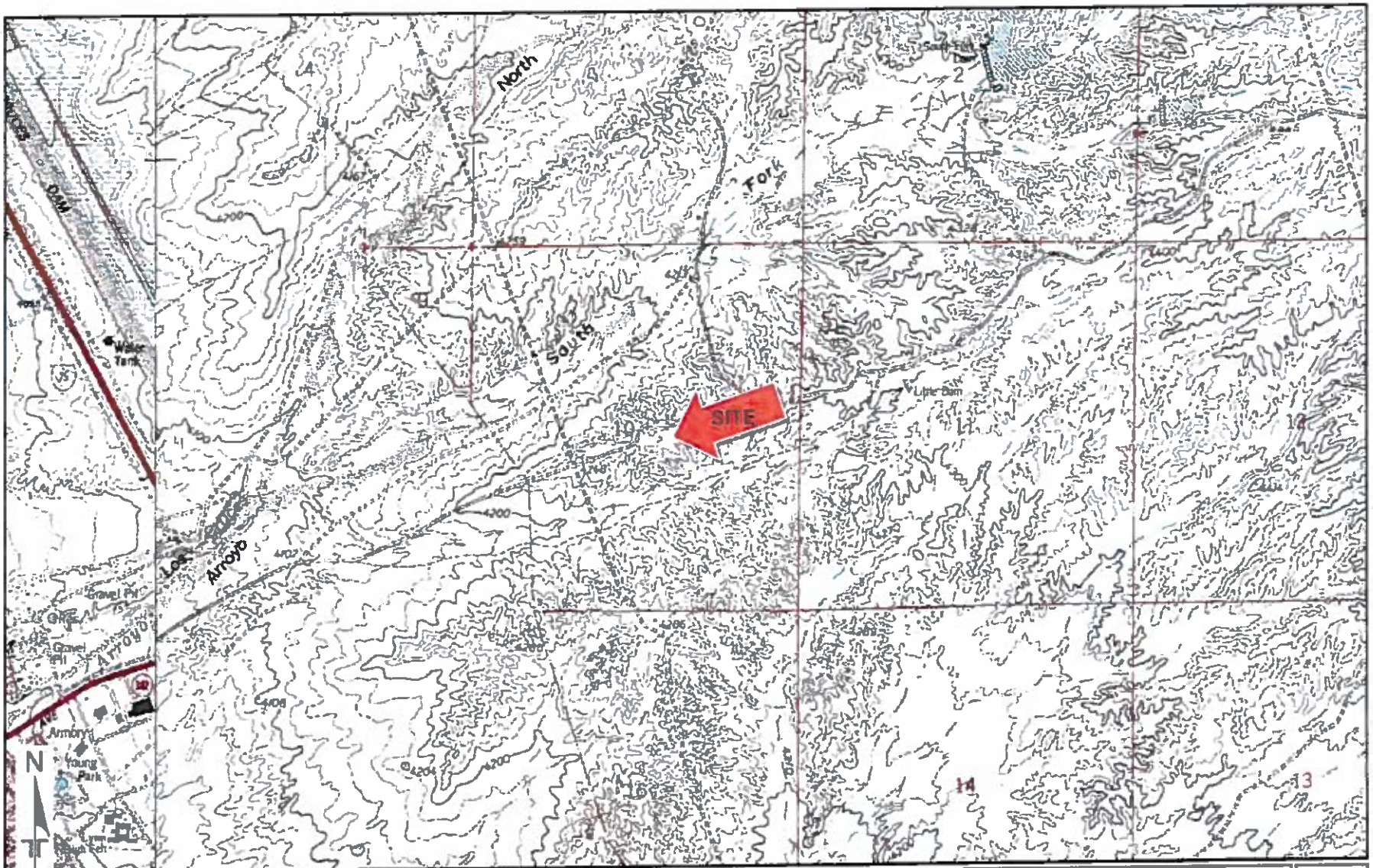
Waste Area	Average Waste Thickness (F)	Total Area (SF)	Volume (CF)	Volume (CY)
NE (9 locations)	4.11	175,810	722,774	26,769
SE (4 locations)	3.88	99,640	386,105	14,300
C (5 locations)	3.90	97,600	380,640	14,098
SW (7 locations)	7.21	161,900	1,167,993	43,259

Cover Material Volume Estimates

Waste Area	Average Cover Material Thickness (F)	Total Area (SF)	Volume (CF)	Volume (CY)
NE (9 locations)	3.67	175,810	644,637	23,875
SE (4 locations)	1.50	99,640	149,460	5,536
C (5 locations)	1.00	97,600	97,600	3,615
SW (7 locations)	3.00	161,900	485,700	17,989

APPENDIX A – EXHIBITS:

Exhibit 1: Site Location
Exhibit 2: Site Diagram
Exhibit 3: Waste Areas, Borings, Test Pits
Exhibit 4: Northeast Waste Area
Exhibit 5: Southeast Waste Area
Exhibit 6: Central Waste Area
Exhibit 7: Southwest Waste Area



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: LAS CRUCES, NM (1/1/1996) and TORTUGAS MTN, NM (1/1/1996).

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	JKW
Drawn by:	JKW
Checked by:	JDC
Approved by:	JKW

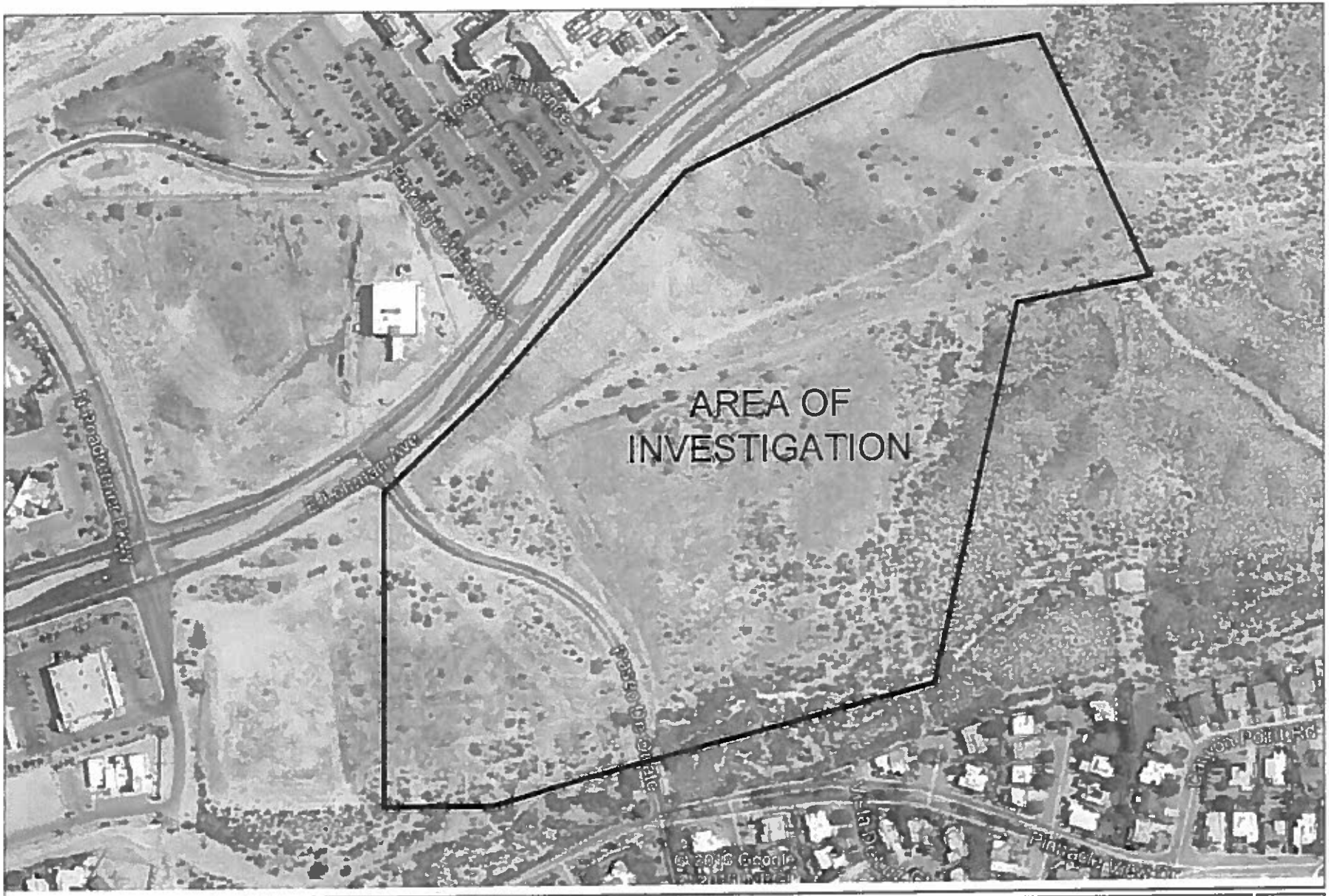
Project No.	68165115
Scale:	1"=2,000'
File Name:	Exhibits
Date:	09/15/2016

Terracon
4450 Bataan Memorial E
Las Cruces, NM 88011-6000

SITE LOCATION

Old City Landfill
SEQ of East Lohman Avenue and Roadrunner Parkway
Las Cruces, Dona Ana County, New Mexico

Exhibit 1



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW

Project No	68165115
Scale	1"=300'
Date	09/15/16

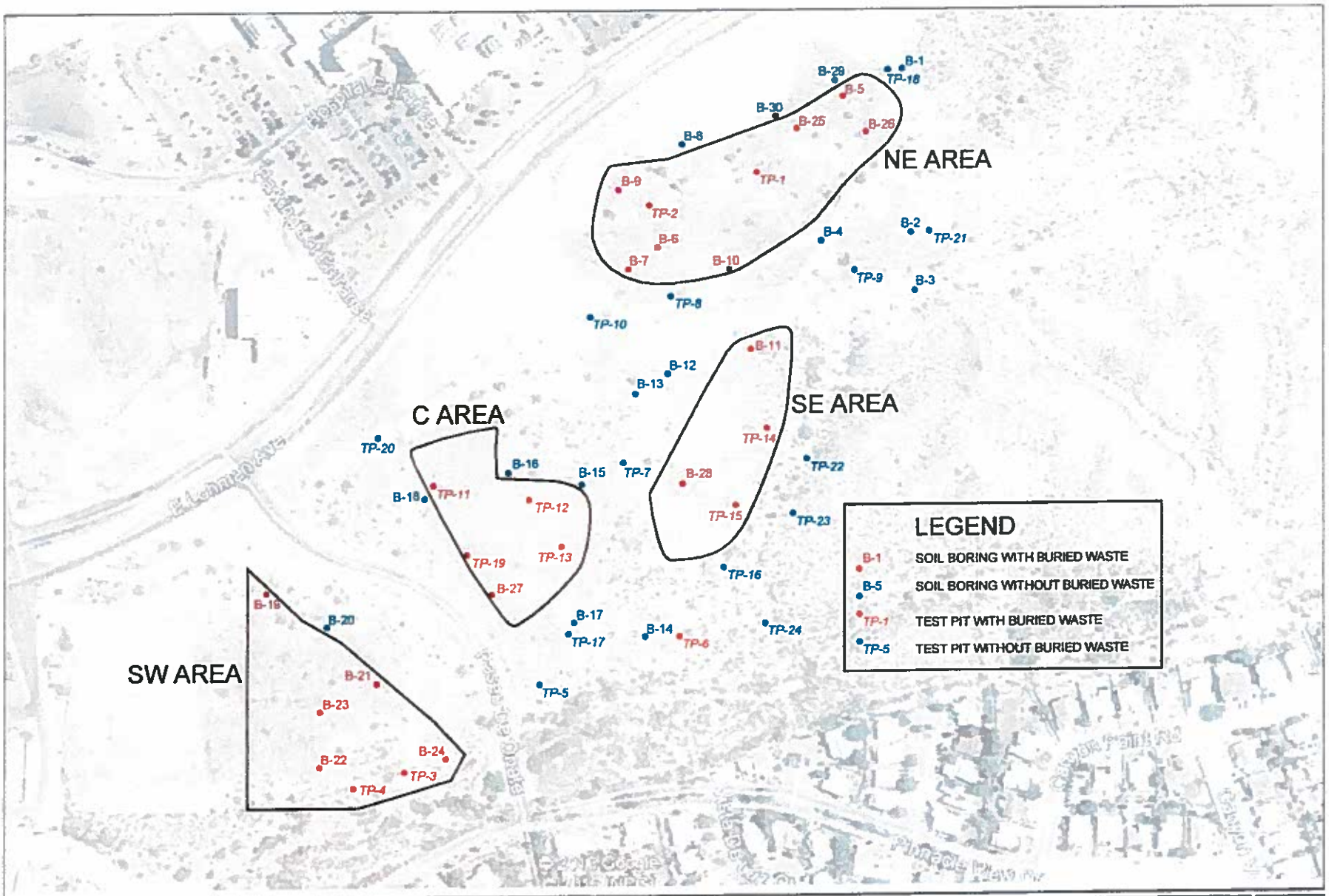
Terracon
Consulting Engineers and Scientists
2359 Bataan Memorial E Las Cruces, New Mexico 88011
Phone (575) 527-1000 FAX (575) 527-1099

SITE DIAGRAM

OLD CITY LANDFILL

SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 2



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Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW
Project No	68165115
Scale	1"=300'
Date	09/15/16

Terracon
Consulting Engineers and Scientists
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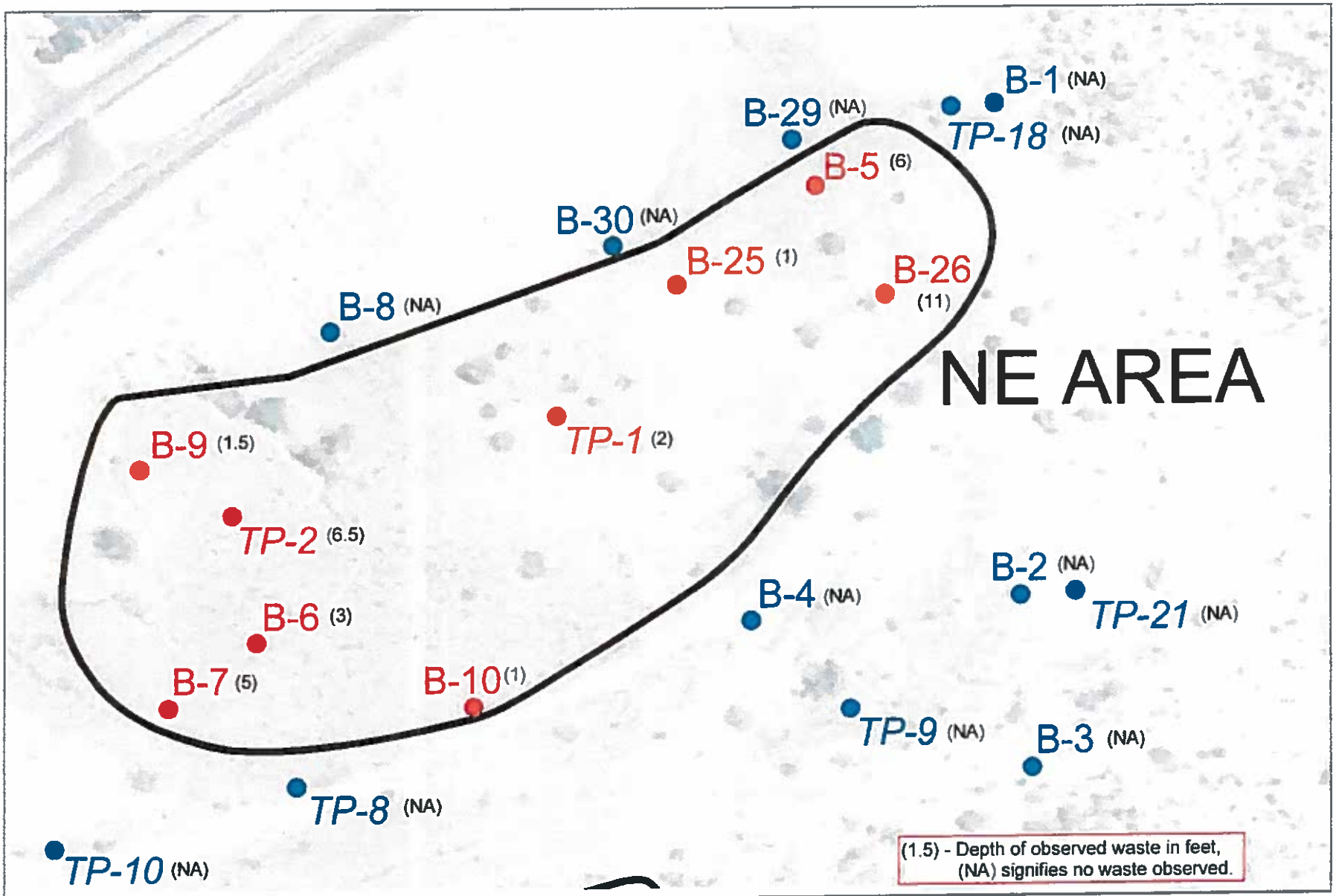
PH (575) 527-1700 FAX (575) 527-1092

WASTE AREAS, BORINGS, TEST PITS

OLD CITY LANDFILL

SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 3



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW
Project No	68165115
Scale	1"=100'
Date	09/15/16

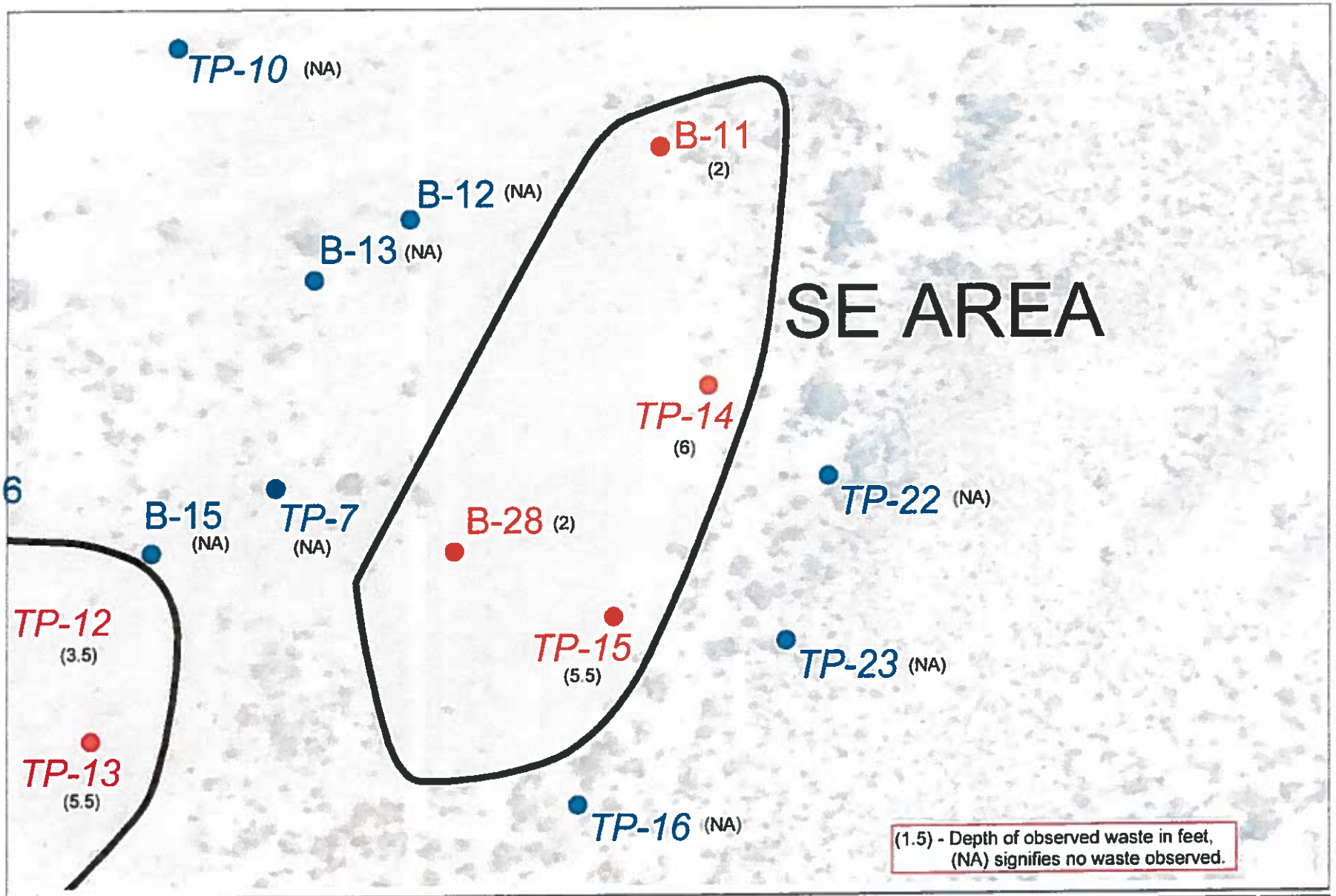
Terracon
Consulting Engineers and Scientists
4450 Belaon Memorial E Las Cruces, New Mexico 88011
PH (575) 527-1700 FAX (575) 527-1092

NORTHEAST WASTE AREA

OLD CITY LANDFILL

SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 4



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW
Project No	68165115
Scale	1"=100'
Date	09/15/16

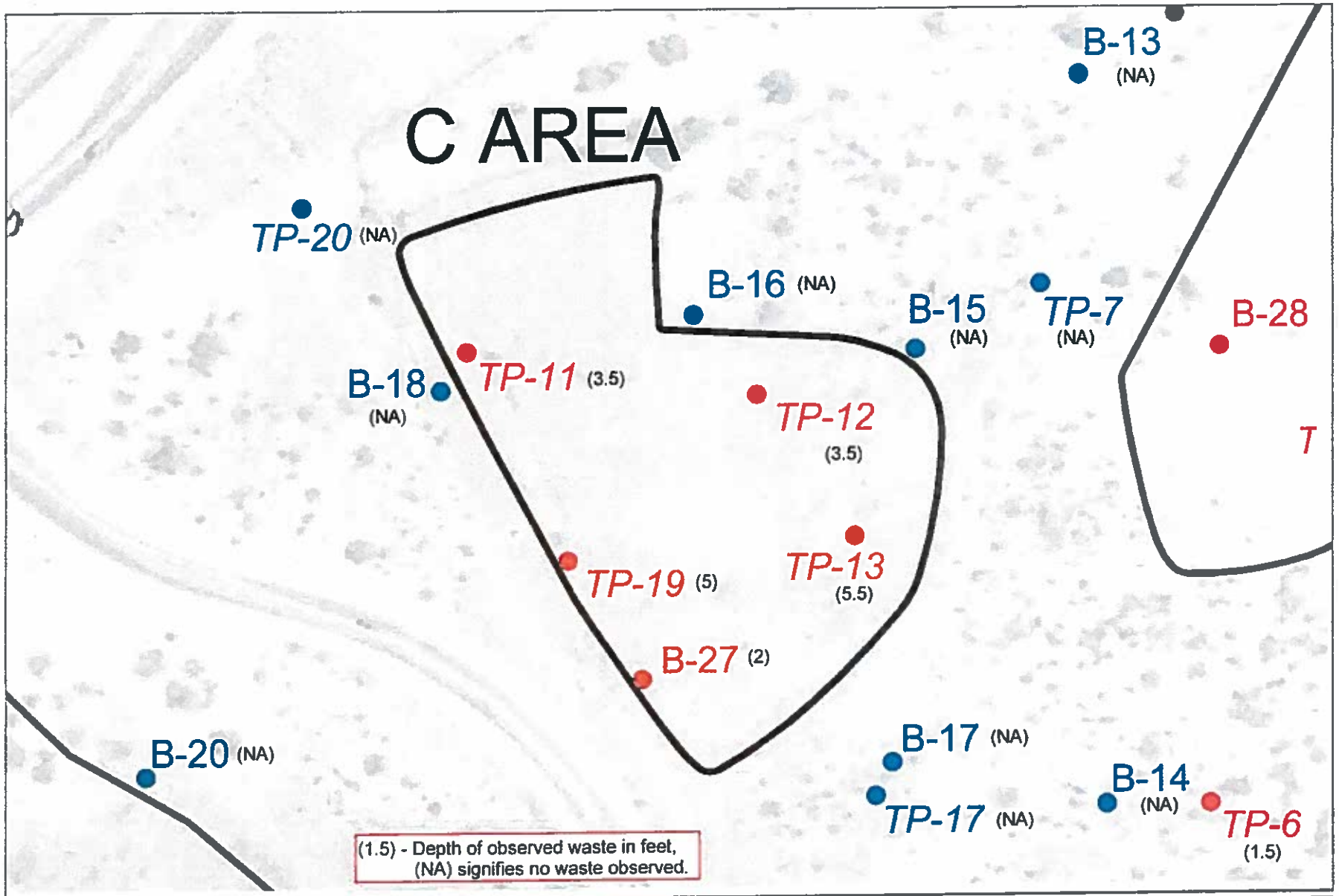
Terracon
Consulting Engineers and Scientists
4450 Bataan Memorial E Las Cruces, New Mexico 88011
PH (575) 527-1700 FAX (575) 527-1092

SOUTHEAST WASTE AREA

OLD CITY LANDFILL

SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 5



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW

Project No	68165115
Scale	1"=100'
Date	09/15/16

Terracon
Consulting Engineers and Scientists
4450 Belaire Memorial E Las Cruces, New Mexico 88011
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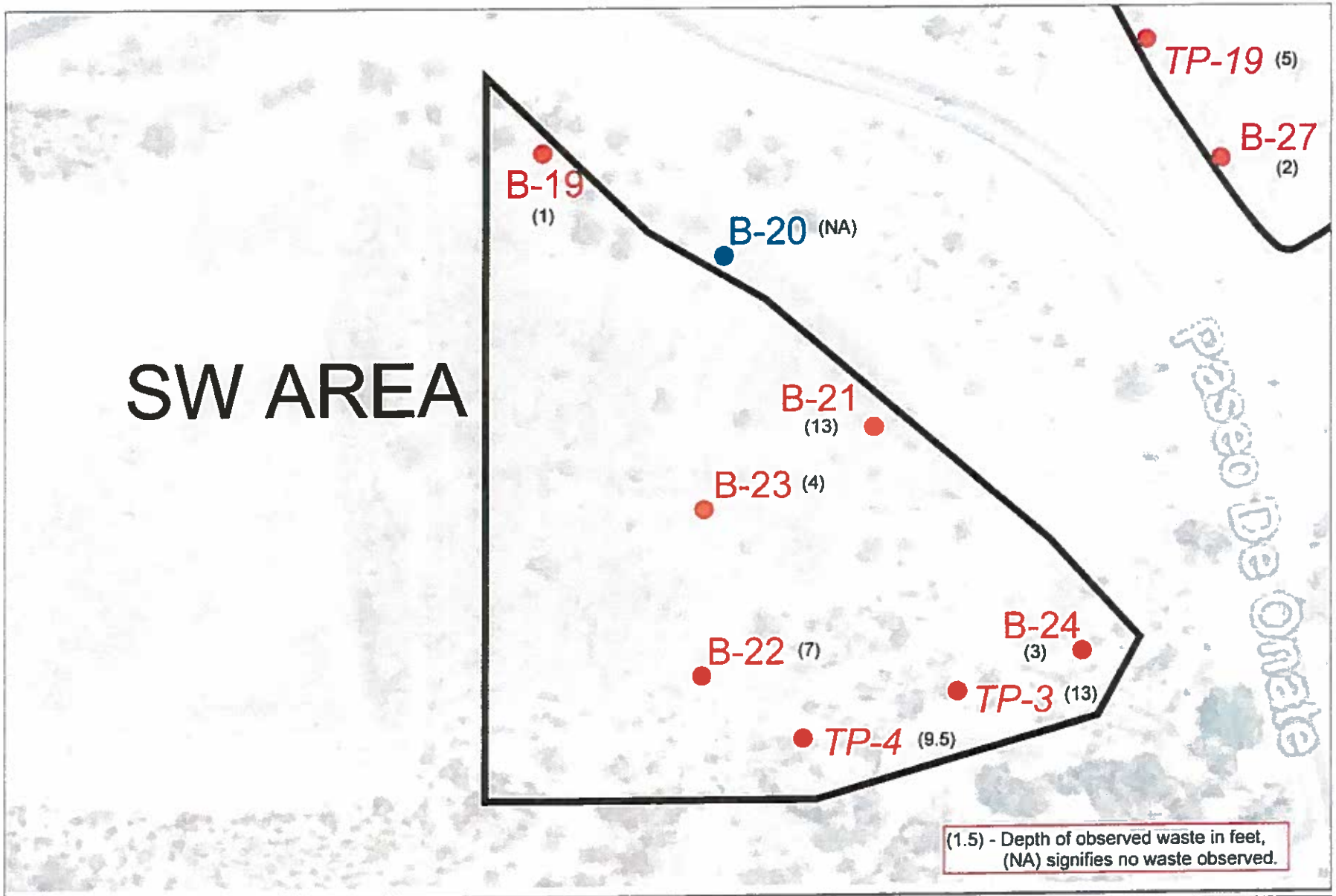
CENTRAL WASTE AREA

OLD CITY LANDFILL
SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 6



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

Project Mngr	JKW
Drawn By	JKW
Checked By	JDC
Approved By	JKW

Project No	68165115
Scale	1"=100'
Date	09/15/16

Terracon
Consulting Engineers and Scientists
4450 Baltzen Memorial E Las Cruces, New Mexico 88011
PH (575) 527-1700 FAX (575) 527-1092

SOUTHWEST WASTE AREA

OLD CITY LANDFILL
SEQ OF EAST LOHMAN AVENUE AND ROADRUNNER PARKWAY
LAS CRUCES, DONA ANA COUNTY, NEW MEXICO

EXHIBIT 7

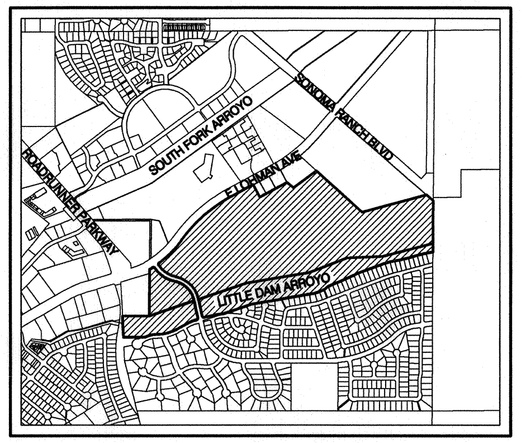
ATTACHMENT 9

ALTA NSPS LAND TITLE SURVEY FOLIO

ALTA / NSPS LAND TITLE SURVEY

LITTLE DAM ARROYO
TRACTS 1 & 2
AND TRACTS 9AR2 & 9CR 1
SOUTH FORK SUBDIVISION, REPLAT NO. 5

CITY OF LAS CRUCES, DOÑA ANA COUNTY, NEW MEXICO
MARCH 2018



LOCATION MAP
NOT TO SCALE

SCHEDULE BII TITLE EXCEPTIONS

1. Rights or claims of parties in possession not shown by the public records. (none apparent)
2. Easements, or claims of easements, not shown by the public records. (no documents provided)
3. Encroachments, overlaps, conflicts in boundary lines, shortages in area, or other matters which would be disclosed by an accurate survey and inspection of the premises. (as shown on survey)
4. Any lien, claim or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records. (no documents provided)
5. Community property, survivorship, or homestead rights, if any, of any spouse of the insured (or vestee in a leasehold or loan policy). (no documents provided)
6. Water rights, claims or title to water. (not plottable)
7. Taxes for the year 2017, and thereafter. (See 13.14.5.12 NMAC) (not plottable)
8. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this commitment. (no documents provided)
9. Reservations contained in Patent from United States of America recorded in Book 275, Pages 226-228, records of Dona Ana County, New Mexico. (not plottable)
10. Easement reserved across the 12 and 30 feet of the insured land and Road and Utility easement reserved across the 30 and 66 feet of the insured land, as shown on the recorded plat, filed in the Office of the County Clerk of Dona Ana County, New Mexico, on 11/28/2001, in Plat Book 19, Folio 762-764. (as shown on survey)

NOTES

1. Tract is located within Section 10, T23S, R2E, NMPM, City of Las Cruces, Doña Ana County, New Mexico.
2. Gross Acreage: 114.7801 Acres.
3. Bearings are based on the east line of Section 10 from Plat of Survey filed in the Office of the County Clerk of Doña Ana County, New Mexico on November 28, 2001 in Plat Book 19, Page 762-764 as Reception No. 29906. Bearing = S 00°15'57" W.
4. Distances are ground distances.
5. Record bearings and distances are the same as shown on the Plat of SOUTH FORK SUBDIVISION, REPLAT NO. 5, filed in the Office of the County Clerk of Doña Ana County, New Mexico on November 28, 2001 as Plat Book 19, Pages 762-764; CANYON POINT SUBDIVISION, filed in the Office of the County Clerk of Doña Ana County, New Mexico on April 27, 1995 as Plat Book 18, Pages 243-245; CANYON RIDGE SUBDIVISION, filed in the Office of the County Clerk of Doña Ana County, New Mexico on April 19, 1994 as Plat Book 18, Pages 52-53, SOUTH RIDGE VILLAGE UNIT B-1 / PHASE I , filed in the Office of the County Clerk of Doña Ana County, New Mexico on January 27, 1990 as Plat Book 16, Pages 211-213 ; SOUTH RIDGE VILLAGE UNIT A / PHASE I, filed in the Office of the County Clerk of Doña Ana County, New Mexico on January 26, 1990 as Plat Book 16, Pages 207-210; SOUTH RIDGE VILLAGE UNIT A / PHASE II, filed in the Office of the County Clerk of Doña Ana County, New Mexico on October 15, 1993 as Plat Book 17, Pages 353-356; SOUTH FORK ANNEXATION PLAT, recorded at Plat Book 14, Page 182 in the Doña Ana County Clerk and Recorder's Office on April 11, 1986 .
6. All easements of record are as shown on the Document of record or made known to me by the owner, utility companies, or other interested parties.
7. This ALTA / NSPS Land Title Survey was based on information obtained from Title Commitment No. 2278721-DA06 issued by Fist American Title Insurance Company issued October 5, 2017. Recorded Plats from Doña Ana County.
8. No wetlands are located on this site.
9. Tract 9ar2 and Tract 9cr1 are situated in Flood Zone X, areas determined to be outside of the 0.2% annual chance floodplain as shown in Flood Insurance Rate Map Number 35013C1103G, effective July 6, 2016 and 35013C1104G, effective July 6, 2016. A portion of Tract 9ar is situated in Flood Zone AE, 1% annual chance flood (100-year flood). Little Dam Arroyo is situated in Flood Zone AE, 1% annual chance flood (100-year flood) as shown in Flood Insurance Rate Map Number 35013C1103G, effective July 6, 2016 and 35013C1104G, effective July 6, 2016.
10. No apparent earthwork or building construction evidence found on site.
11. No evidence of site being used for a solid waste dump, sump or sanitary landfill.
12. No evidence of a recent street or sidewalk construction or repairs.
13. Tract 9ar2 and Tract 9acr1 are situated in Zoning PUD (Planned Unit Development), with an underlying land use of A-2 (Rural Agricultural District).
    Little Dam Arroyo Tracts 1 & 2 are situated in Zoning PUD (Planned Unit Development), with an underlying land use of A-1 (Flood Control District).
    This information was derived from a Statement of Zoning dated March 6, 2018, provided by the City of Las Cruces.
14. Existing conditions shown on this survey are current as of the date of the field survey, February 26, 2018.
15. This survey has a vertical accuracy for two foot contours which was provided by the client.
16. No buildings observed on subject property.
17. A "Design Locate" request was made through NM811 to facilitate the designation of underground utilities within the surveyed area. The location of underground utilities shown on this map/plat is based on the markings (i.e. paint, pinflags, stakes, etc.) placed on the surface by the utility owners, and/or based on asbuilt plans provided by the utility owners. without excavation, Bohannan Huston does not guarranty the exact location, type, size or material of the underground utility line.
    NM811 locate request number 18JA310672, request made on 1/31/2018.
18. New descriptions were prepared for Little Dam Arroyo Tracts 1 & 2 (ALTA PARCEL) because they are remnant parcels, being a portion of parent parcel as shown on South Fork Annexation Plat, recorded at Plat Book 14, Page 182 in the Doña Ana County Clerk and Recorder's Office on April 11, 1986 .

DESCRIPTION PARCEL 1
(TRACTS 9ar2 & 9cr1, SOUTH FORK SUBDIVISION, REPLAT NO. 5)

Tract 9ar2 of SOUTH FORK SUBDIVISION, REPLAT NO. 5, Las Cruces, New Mexico, as the same is shown and designated on the plat of said SOUTH FORK SUBDIVISION, REPLAT NO. 5, filed in the Office of the County Clerk of Dona Ana County, New Mexico on November 28, 2001 in Plat Book 19, Folio 762-764.

Tract contains 84.0287 acres, more or less.

TOGETHER WITH:

Tract 9cr1 of SOUTH FORK SUBDIVISION, REPLAT NO. 5, Las Cruces, New Mexico, as the same is shown and designated on the plat of said SOUTH FORK SUBDIVISION, REPLAT NO. 5, filed in the Office of the County Clerk of Dona Ana County, New Mexico on November 28, 2001 in Plat Book 19, Folio 762-764.

Tract contains 5.5734 acres, more or less.

DESCRIPTION PARCEL 2
(LITTLE DAM ARROYO TRACTS 1 & 2)

TRACT 1:
A tract of land located within Section 10, Township 23 South, Range 2 East, N.M.P.M., Las Cruces, Doña Ana County, New Mexico, also being a portion of South Fork Annexation Plat, recorded at Plat Book 14, Page 182 in the Doña Ana County Clerk and Recorder's Office on April 11, 1986, being more particularly described as follows:

BEGINNING at the northwest corner of tract herein described being a set pk nail in washer stamped "PS 23788", WHENCE a found 2.5" Aluminum Cap stamped "PLS NO 7964 DABC AP 26 T23S R2E" bears N 02°47'44" W a distance of 675.52 feet;

THENCE N 89°56'57" E a distance of 375.15 feet to a found 1" plastic cap STAMPED "nmps 12800";

THENCE the following two (2) courses, along the northerly boundary of the tract herein described and along the southerly boundary of South Fork Subdivision Replat No. 5, recorded at Plat Book 19, Pages 762 – 764 in the Doña Ana County Clerk and Recorder's Office on November 28, 2001:

1. N 71°13'13" E a distance of 525.27 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
2. N 71°21'09" E a distance of 130.72 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";

THENCE along the easterly boundary of the tract herein described, and along the westerly right of way line of Paseo De Oñate, along the arc of a non-tangent curve to the right, having a central angle of 02°28'23", a radius of 1410.00 feet, a chord bearing of S 13°02'44" E a distance of 60.85 feet, and an arc distance of 60.86 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";

THENCE along the easterly boundary of the tract herein described, and along the westerly right of way line of Paseo De Oñate as shown on South Fork Annexation / Replat #1, recorded at Plat Book 16, Pages 205 - 206 in the Doña Ana County Clerk and Recorder's Office on January 26, 1990, S 11°48'32" E a distance of 183.62 feet to a set nail and washer stamped "PS 23788";

THENCE the following five (5) courses, along the southerly boundary of the tract herein described and along the northerly boundary of South Ridge Village Unit A / Phase I, recorded at Plat Book 16, Pages 207-210 in the Doña Ana County Clerk and Recorder's Office on January 26, 1990:

1. Along the arc of a non-tangent curve to the right, having a central angle of 91°21'02", a radius of 25.00 feet, a chord bearing of S 33°54'57" W a distance of 35.77 feet and an arc distance of 39.86 feet to a found pk nail in washer with illegible stamping;
2. S 78°08'52" W a distance of 10.18 feet to the beginning of a non-tangent curve and a found pk nail in washer with illegible stamping;
3. Along the arc of a non-tangent curve to the left, having a central angle of 16°44'21", a radius of 314.00 feet, a chord bearing of S 69°33'57" W a distance of 91.41 feet and arc distance of 91.74 feet to a found no. 5 rebar;
4. S 61°13'50" W a distance of 202.86 feet to found 1.25" plastic cap with illegible stamping at the beginning of a non-tangent curve;
5. Along the arc of a non-tangent curve to the right, having a central angle of 28°41'52", a radius of 575.90 feet, a chord bearing of S 75°35'06" W a distance of 285.44 feet and an arc distance of 288.45 feet to a found a chiseled "x" in concrete;

THENCE along the arc of a non-tangent curve to the left, having a central angle of 26°21'56", a radius of 379.00 feet, a chord bearing of S 76°45'03" W a distance of 172.87 feet and an arc distance of 174.40 feet to a set scribed "x" in concrete;

THENCE along the northerly boundary South Ridge Village Unit A / Phase II, recorded at Plat Book 17, Pages 353-356 in the Doña Ana County Clerk and Recorder's Office on October 15, 1993, S 89°56'57" W a distance of 294.89 feet to the southwest corner of the tract herein described to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788", WHENCE a found no. 5 rebar, 1.5 feet buried below ground bears S 53°02'46" W a distance of 0.30 feet;

THENCE N 02°47'44" W a distance of 300.41 feet to the POINT OF BEGINNING.

Containing 7.0166 acres, more or less.

TOGETHER WITH:

TRACT 2:
A tract of land located within Section 10, Township 23 South, Range 2 East, N.M.P.M., Las Cruces, Doña Ana County, New Mexico, also being a portion of South Fork Annexation Plat, recorded at Plat Book 14, Page 182 in the Doña Ana County Clerk and Recorder's Office on April 11, 1986, being more particularly described as follows:

BEGINNING at a found 1" plastic cap stamped "NMPS 12800" being the northeast corner of the tract herein described, WHENCE a 2.5" brass cap stamped "1/4 S10 S11 1927" also being the east quarter corner of said Section 10, W bears S 00°15'57" W a distance of 323.85 feet; THENCE along the easterly line of the tract herein described, S 00°22'27" W a distance of 124.98 feet to a found 1" plastic cap with illegible stamping on the southeast corner of the tract herein described;

THENCE the following thirteen (13) courses, along the southerly boundary of the tract herein described and along the northerly boundary line of Canyon Point Subdivision, recorded at Plat Book 18, Pages 243 – 245 in the Doña Ana County Clerk and Recorder's Office on April 27, 1995:

1. S 81°56'41" W a distance of 98.56 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
2. S 76°15'51" W a distance of 65.01 feet to a set scribed "x" in rock;
3. S 74°46'21" W a distance of 130.00 feet to a set scribed "x" in rock;
4. S 73°27'02" W a distance of 65.02 feet to a set scribed "x" in rock;
5. S 76°32'10" W a distance of 130.04 feet to a set scribed "x" in rock;
6. S 79°36'28" W a distance of 130.42 feet to a set scribed "x" in rock;
7. S 72°57'53" W a distance of 80.17 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
8. S 70°22'10" W a distance of 260.22 feet to a found 1" plastic cap stamped "MOY NM 5939";
9. S 68°28'52" W a distance of 129.85 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
10. S 65°02'42" W a distance of 195.45 feet to a set scribed "x" in rock;
11. S 66°26'55" W a distance of 260.24 feet to a found 1" plastic cap stamped "MOY NM 5939";
12. S 49°56'07" W a distance of 68.79 feet to a set nail in washer stamped "PS 23788";
13. S 69°02'45" W a distance of 145.10 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";

THENCE S 80°15'47" W a distance of 566.83 feet, continuing along the southerly boundary of the tract herein described and along the northerly boundary line of Canyon Ridge Subdivision, recorded at Plat Book 18, Pages 52 – 53 in the Doña Ana County Clerk and Recorder's Office on April 19, 1994, to a found pk nail in washer stamped "7964";

THENCE the following two (2) courses, along the southerly boundary of the tract herein described, and along the northerly boundary line of South Ridge Village Unit B, recorded at Plat Book 16, Pages 211 - 213 in the Doña Ana County Clerk and Recorder's Office on January 27, 1990:

1. S 80°18'46" W a distance of 322.84 feet to a found 1.5" aluminum cap with illegible stamping;
2. S 71°31'15" W a distance of 417.11 feet to a found pk nail in washer with illegible stamping;

THENCE the following three (3) courses, along the northerly right of way of Pinnacle View as shown on said South Ridge Village Unit B:

1. Along the arc of a non-tangent curve to the left, having a central angle of 06°11'38", a radius of 900.00 feet, a chord bearing of S 81°03'44" W a distance of 97.25 feet and an arc distance of 97.29 feet to a set no. 5 rebar with plastic cap stamped "CHRISTMAS PS 23788";
2. S 77°57'56" W a distance of 171.73 feet to set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
3. Along the arc of a non-tangent curve to the right, having a central angle of 88°44'07", a radius of 25.00 feet, a chord bearing of N 56°09'29" W a distance of 34.96 feet and an arc distance of 38.72 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";

THENCE along the westerly boundary of the tract herein described, and along the easterly right of way line of Paseo De Oñate as shown on South Fork Annexation / Replat #1, recorded at Plat Book 16, Pages 205 - 206 in the Doña Ana County Clerk and Recorder's Office on January 26, 1990, N 11°48'32" W a distance of 169.72 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";

THENCE continuing along the easterly right of way of said Paseo de Oñate, along the arc of a tangent curve to the left, a radius of 1476.00 feet, having a central angle of 02°40'07" a chord bearing of N 13°08'36" W a distance of 68.74 feet, and an arc distance of 68.75 feet to a found 1" plastic cap stamped "NMPS 12800";

THENCE the following six (6) courses, along the northerly boundary of the tract herein described and along the southerly boundary of South Fork Subdivision Replat No. 5, recorded at Plat Book 19, Pages 762 – 764 in the Doña Ana County Clerk and Recorder's Office on November 28, 2001:

1. N 71°21'09" E a distance of 3.09 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
2. N 71°31'52" E a distance of 699.11 feet to a found 1" plastic cap stamped "NMPS 12800"
3. N 80°18'43" E a distance of 883.19 feet to a found 1" plastic cap with illegible stamping;
4. N 68°58'20" E a distance of 570.03 feet to a set no. 5 rebar with 1.25" plastic cap stamped "CHRISTMAS PS 23788";
5. N 87°35'03" E a distance of 502.55 feet to a found 1" plastic cap stamped "NMPS 12800";
6. N 75°02'43" E a distance of 720.02 feet to the POINT OF BEGINNING.

Tract contains 18.1614 acres, more or less.

OWNER'S NAMES TABLE

CANYON POINT SUBDIVISION (PLAT BK. 18, PGS 243-245)		
LOT	**OWNER'S NAME**	**ADDRESS**
DRAINAGE TR	CITY OF LAS CRUCES	
LT 1	LEE MATTHEW D & STEPHANIE A	598 CANYON POINT RD
LT 2	TAYLOR CHARLTON L & MARY E	596 CANYON POINT RD
LT 3	MOUNT JANE E	594 CANYON POINT RD
LT 4	SAUTER RODNEY M & MARIE A	592 CANYON POINT RD
LT 5	BARNES MICHAEL T	590 CANYON POINT RD
LT 6	CALL CARMEN M	588 CANYON POINT RD
LT 7	SKILLMAN RUSSELL A	586 CANYON POINT RD
LT 8	HERRERA CARLOS TRUSTEE	584 CANYON POINT RD
LT 9	BACHMAN KATHERINE A	582 CANYON POINT RD
LT 10	GRAF-WEBSTER ERIKA	580 CANYON POINT RD
LT 11	KEKAUOHA STANFORD & ELIZABETH	578 CANYON POINT RD
LT 12	HAUSHALTER WILLIAM R & DAVID DARST	576 CANYON POINT RD
LT 13	GUADERRAMA EDDIE & MARI	574 CANYON POINT RD
LT 14	DICK ERIC A & MARIE L MATANIS	572 CANYON POINT RD
LT 15	BEATTY LUKE W & JENNIFER	570 CANYON POINT RD
LT 16	SEIBYL WALTER L & MARON M TR	568 CANYON POINT RD
LT 17	RANDLETT RICHARD J & NANCY E TRSTS R J & N E RANDLETT REVOCABLE TRUST	566 CANYON POINT RD
LT 18	TANG YU PING & JUN DONG	564 CANYON POINT RD
LT 19	LAQUERRE JAMES B	562 CANYON POINT RD
LT 20	SHAUGHNESSY MICHAEL P & KAREN J AMACHER	560 CANYON POINT RD
LT 21	BURGESS RONALD G & TERRI L	558 CANYON POINT RD
LT 22	CABRERA GILBERT R & STEPHANIE D	556 CANYON POINT RD
LT 23	BRAGG JASON A TRUSTEE	554 CANYON POINT RD
LT 24	HEDGES ROBERT O & PHYLLIS I REV TR	552 CANYON POINT RD
LT 25	ELLIOTT JAY & DEANA	550 CANYON POINT RD
LT 26	MCKEE MICHAEL D	548 CANYON POINT RD

CANYON RIDGE SUBDIVISION (PLAT BK. 18, PGS 52-53)		
LOT	**OWNER'S NAME**	**ADDRESS**
LT 10	TYREE FAMILY TRUST	660 CANYON POINT RD
LT 11	KAFKA WILLIAM J JR & HELEN TR	650 CANYON POINT RD
LT 12	MEALOR CHARLES D & MARIETTE J	640 CANYON POINT RD
LT 13	QUINN WILLIAM FRANCIS	630 CANYON POINT RD
LT 14	HENDRICKSON BARRY E & SYLVIA A	620 CANYON POINT RD
LT 15	EISERLING ELEANOR M TRSTE THE EISERLING TRUST	610 CANYON POINT RD
LT 16	MARTINEZ ROBERT B & DELMA T	600 CANYON POINT RD

SOUTH RIDGE VILLAGE, UNIT B-1/PHASE I (PLAT BK. 16, PGS. 211-213)		
LOT - BLOCK	**OWNER'S NAME**	**ADDRESS**
LT 1 - A	RADER BARBARA C	275 CHAMISA CT
LT 2 - A	CAVINESS MICHAEL L	278 CHAMISA CT
LT 4 - B	ESCOBEDO MIGUEL A	295 LOS ARBOLES CT
LT 5 - B	SUMNER DONALD E & SANDRA L	298 LOS ARBOLES CT
TRACT A	SOUTH RIDGE VILLAGE HOMEOWNERS ASSOCIATION	

SOUTH RIDGE VILLAGE UNIT A / PHASE II (PLAT BK. 17, PGS 353-356)		
LOT	**OWNER'S NAME**	**ADDRESS**
LT 1	DURAN JESUS R & LOURDES G	3411 PINNACLE VIEW DR

SOUTH FORK SUBDIVISION, REPLAT NO. 5 (PLAT BK. 19, PGS. 762-764)					
LOT	**OWNER'S NAME**	**MAILING ADDRESS**			
TRACT 9GR	PC PROPERTIES LLC	6800 VISTA DEL NORTE NE # 1526	ALBUQUERQUE	NM	87113
TRACT 9HR	JPP INVESTMENTS LLC	2122 DESERT GREENS DR	LAS CRUCES	NM	88011
TRACT 9FR	JPP INVESTMENTS LLC	2122 DESERT GREENS DR	LAS CRUCES	NM	88011
TRACT 9ER	JPP INVESTMENTS LLC	2122 DESERT GREENS DR	LAS CRUCES	NM	88011

SURVEYOR'S CERTIFICATION

To:
City of Albuquerque, a New Mexico Municipal Corporation
City of Las Cruces, a New Mexico Municipal Corporation
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1 - 5, 6(a), 8, 11, 13, 16, 17, 18, 19 and 20 of Table A thereof. The fieldwork was completed on February 28, 2018.

Dean S. Christmas
New Mexico Professional Surveyor 23788
dchristmas@bhinc.com

DEAN S. CHRISTMAS NEW MEXICO 23788 3-15-18 PROFESSIONAL SURVEYOR

Date: MARCH 15, 2018

Bohannan Huston
Courtyard I 7500 Jefferson St. NE
Albuquerque, NM 87109 (505) 823-1000

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Thu, 15-Mar-2018 - 9:18:am, Plotted by: VRAMOS

ALTA / NSPS LAND TITLE SURVEY

LITTLE DAM ARROYO TRACTS 1 & 2 AND TRACTS 9AR2 & 9CR 1 SOUTH FORK SUBDIVISION, REPLAT NO. 5

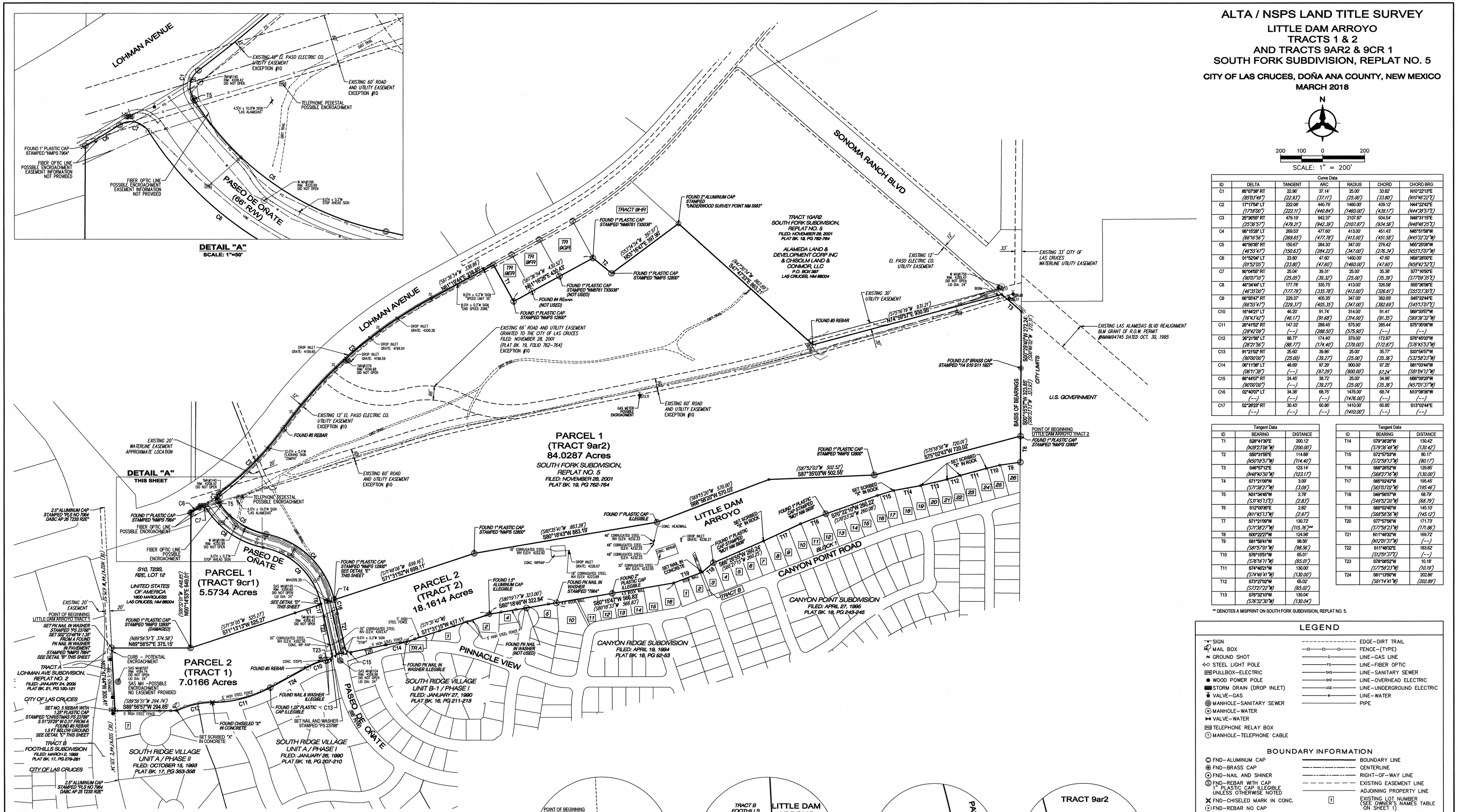
CITY OF LAS CRUCES, DOÑA ANA COUNTY, NEW MEXICO
MARCH 2018

N

200 100 0 200

SCALE: 1" = 200'

DETAIL "A"
SCALE: 1"=50'



Curve Data						
ID	DELTA	TANGENT	ARC	RADIUS	CHORD	CHORD BRG
C1	85°07'38" RT	22.96'	37.14'	25.00'	33.82'	N10°22'13"E
	(85°03'49")	(22.93')	(37.11')	(25.00')	(33.80')	(N10°16'22"E)
C2	17°11'54" LT	222.08'	440.79'	1460.00'	439.12'	N44°12'42"E
	(17°18'00")	(222.11')	(440.84')	(1460.00')	(439.17')	(N44°38'57"E)
C3	25°36'55" RT	478.19'	942.37'	2107.87'	934.54'	N48°31'15"E
	(25°36'57")	(478.21')	(942.39')	(2107.87')	(934.56')	(N48°48'25"E)
C4	66°15'28" LT	269.53'	471.60'	413.00'	451.43'	N46°51'58"W
	(66°16'58")	(268.65')	(477.78')	(413.00')	(451.58')	(N46°32'32"W)
C5	40°56'55" RT	150.67'	294.30'	347.00'	276.42'	N55°25'09"W
	(46°55'47")	(150.63')	(284.22')	(347.00')	(276.34')	(N55°13'07"W)
C6	01°52'04" LT	23.80'	47.60'	1460.00'	47.60'	N58°28'00"E
	(01°52'05")	(23.80')	(47.60')	(1460.00')	(47.60')	(N58°42'52"E)
C7	90°04'55" RT	25.04'	39.31'	25.00'	35.38'	S77°16'50"E
	(90°07'10")	(25.05')	(39.32')	(25.00')	(35.39')	(S77°09'35"E)
C8	46°34'44" LT	177.78'	335.75'	413.00'	326.58'	S55°36'59"E
	(46°35'00")	(177.79')	(335.78')	(413.00')	(326.61')	(S55°23'30"E)
C9	66°55'47" RT	229.37'	405.35'	347.00'	382.69'	S45°32'44"E
	(66°55'47")	(228.37')	(405.35')	(347.00')	(382.69')	(S45°17'07"E)
C10	16°44'21" LT	46.20'	91.74'	314.00'	91.41'	S69°39'35"W
	(16°14'52")	(46.17')	(91.68')	(314.00')	(91.35')	(S69°35'32"W)
C11	28°41'52" RT	147.32'	288.45'	575.90'	285.44'	S75°35'06"W
	(28°42'09")	(---)	(288.50')	(575.90')	(---)	(---)
C12	26°21'56" LT	88.77'	174.40'	379.00'	172.87'	S76°45'03"W
	(26°21'56")	(88.77')	(174.40')	(379.00')	(172.87')	(S76°45'53"W)
C13	91°31'02" RT	25.60'	39.86'	25.00'	35.77'	S35°54'57"W
	(90°00'00")	(25.00')	(39.27')	(25.00')	(35.36')	(S32°58'23"W)
C14	06°11'38" LT	48.69'	97.29'	900.00'	97.25'	S81°03'44"W
	(06°11'38")	(---)	(97.29')	(900.00')	97.24'	(S81°04'12"W)
C15	88°44'07" RT	24.45'	38.72'	25.00'	34.96'	N56°09'29"W
	(90°00'00")	(---)	(38.27')	(25.00')	(35.36')	(N57°01'37"W)
C16	02°40'07" LT	34.38'	68.74'	1476.00'	68.74'	N13°08'36"W
	(---)	(---)	(---)	(1476.00')	(---)	(---)
C17	02°28'23" RT	30.43'	60.86'	1410.00'	60.85'	S13°02'44"E
	(---)	(---)	(---)	(1410.00')	(---)	(---)

Tangent Data		
ID	BEARING	DISTANCE
T1	S28°41'30"E	200.12'
	(N28°23'26"W)	(200.00')
T2	S50°31'55"E	114.88'
	(N50°18'57"W)	(114.40')
T3	S48°57'12"E	123.14'
	(N48°40'50"W)	(123.17')
T4	S71°21'09"W	3.09'
	(S71°38'27"W)	(3.09')
T5	N31°34'46"W	2.78'
	(S31°45'13"E)	(2.83')
T6	S12°00'35"E	2.82'
	(N11°45'13"W)	(2.97')
T7	S71°21'09"W	130.72'
	(S71°38'27"W)	(115.76')**
T8	S00°22'27"W	124.98'
T9	S81°58'41"W	98.56'
	(S81°57'01"W)	(98.56')
T10	S76°16'51"W	65.01'
	(S76°16'11"W)	(65.01')
T11	S74°46'21"W	130.00'
	(S74°46'41"W)	(130.00')
T12	S73°37'02"W	65.02'
	(S73°27'22"W)	(65.02')
T13	S76°32'10"W	130.04'
	(S76°32'30"W)	(130.04')

Tangent Data		
ID	BEARING	DISTANCE
T14	S79°36'28"W	130.42'
	(S79°35'48"W)	(130.42')
T15	S72°57'53"W	80.17'
	(S72°56'13"W)	(80.17')
T16	S68°28'52"W	129.85'
	(S68°27'16"W)	(130.00')
T17	S65°02'42"W	195.45'
	(S65°03'02"W)	(195.46')
T18	S49°56'07"W	68.79'
	(S49°53'20"W)	(68.79')
T19	S69°02'45"W	145.10'
	(S68°58'36"W)	(145.12')
T20	S77°57'56"W	171.73'
	(S77°58'23"W)	(171.86')
T21	N11°45'52"W	169.72'
	(N12°01'37"W)	(---)
T22	S11°48'32"E	183.62'
	(S12°01'37"E)	(---)
T23	S78°08'52"W	10.18'
	(S77°58'23"W)	(10.19')
T24	S81°13'50"W	202.86'
	(S81°14'41"W)	(202.89')

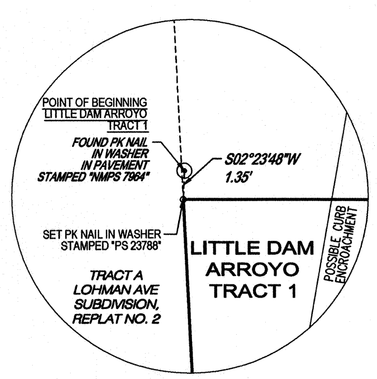
** DENOTES A MISPRINT ON SOUTH FORK SUBDIVISION, REPLAT NO. 5.

LEGEND

- SIGN
- MAIL BOX
- GROUND SHOT
- STEEL LIGHT POLE
- PULLBOX–ELECTRIC
- WOOD POWER POLE
- STORM DRAIN (DROP INLET)
- VALVE–GAS
- MANHOLE–SANITARY SEWER
- MANHOLE–WATER
- VALVE–WATER
- TELEPHONE RELAY BOX
- MANHOLE–TELEPHONE CABLE
- EDGE–DIRT TRAIL
- FENCE–(TYPE)
- LINE–GAS LINE
- LINE–FIBER OPTIC
- LINE–SANITARY SEWER
- LINE–OVERHEAD ELECTRIC
- LINE–UNDERGROUND ELECTRIC
- LINE–WATER
- PIPE

BOUNDARY INFORMATION

- FND–ALUMINUM CAP
- FND–BRASS CAP
- FND–NAIL AND SHINER
- FND–REBAR WITH CAP 1" PLASTIC CAP ILLEGIBLE UNLESS OTHERWISE NOTED
- FND–CHISELED MARK IN CONC.
- FND–REBAR NO CAP
- SET CORNER SET NO. 5 REBAR WITH 1.25" PLASTIC CAP STAMPED "CHRISTMAS PS 23788" UNLESS OTHERWISE NOTED
- BOUNDARY LINE
- CENTERLINE
- RIGHT–OF–WAY LINE
- EXISTING EASEMENT LINE
- ADJOINING PROPERTY LINE
- [7] EXISTING LOT NUMBER (SEE OWNER'S NAMES TABLE ON SHEET 1)



DETAIL "B"
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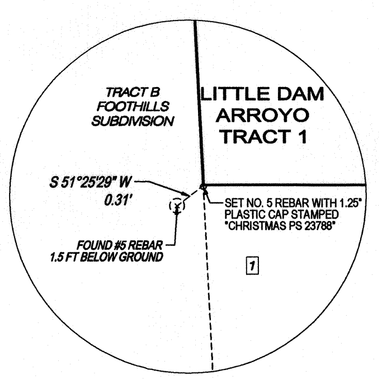

DETAIL "C"
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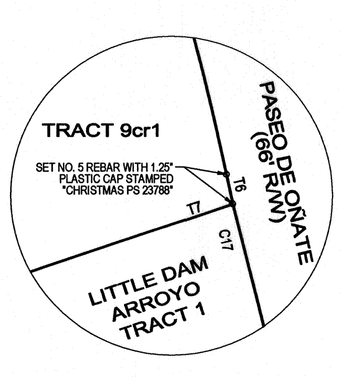

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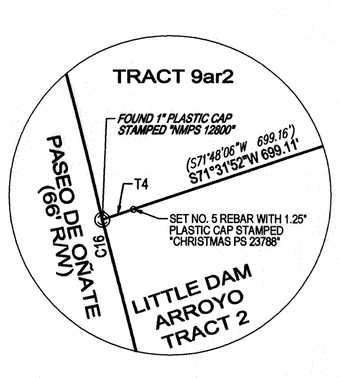

DETAIL "E"
SCALE: 1"=10'

DEAN S. CHRISTMAS NEW MEXICO 23788 3-15-18 PROFESSIONAL SURVEYOR

Bohannan Huston
Courtyard I 7500 Jefferson St. NE
Albuquerque, NM 87109 (505) 823-1000

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ALTA / NSPS LAND TITLE SURVEY

LITTLE DAM ARROYO
TRACTS 1 & 2
AND TRACTS 9AR2 & 9CR 1
SOUTH FORK SUBDIVISION, REPLAT NO. 5

CITY OF LAS CRUCES, DOÑA ANA COUNTY, NEW MEXICO
MARCH 2018

N

200 100 0 200

SCALE: 1" = 200'

CONTOUR INTERVAL = 2 FEET

LEGEND

- SIGN
- MAIL BOX
- GROUND SHOT
- STEEL LIGHT POLE
- PULLBOX–ELECTRIC
- WOOD POWER POLE
- STORM DRAIN (DROP INLET)
- VALVE–GAS
- MANHOLE–SANITARY SEWER
- MANHOLE–WATER
- VALVE–WATER
- TELEPHONE RELAY BOX
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- EDGE–DIRT TRAIL
- FENCE–(TYPE)
- LINE–GAS LINE
- LINE–FIBER OPTIC
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- BOUNDARY LINE
- CENTERLINE
- RIGHT–OF–WAY LINE
- EXISTING EASEMENT LINE
- ADJOINING PROPERTY LINE
- 7 EXISTING LOT NUMBER (SEE OWNER'S NAMES TABLE ON SHEET 1)

DEAN S. CHRISTMAS NEW MEXICO 23788 PROFESSIONAL SURVEYOR 3-15-18

Bohannan Huston
Courtyard I 7500 Jefferson St. NE
Albuquerque, NM 87109 (505) 823-1000

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ATTACHMENT 10

5/6/19 NMED-SWB LIST OF NM REGISTERED COMMERCIAL HAULERS

Commercial Haulers Registered in New Mexico

May 6, 2019

COUNTY	FACILITY NAME	CONTACT NAME	CONTACT ADDRESS	CONTACT PHONE	STRATION EXPIRA	PERMITTED WASTE
Bernalillo	Payless Rolloff, LLC	Luis Tarin	2145 Don Andrew Rd., SW, Albuquerque, NM	505-916-6777	2/15/2023	C&D
Bernalillo	Victor Trucking	Victor Gomez	1105 72nd Pl., NW, Albuquerque, NM 87121	505-720-0949	3/21/2024	PCS
Bernalillo	Redbox+, Inc.	Gavin Pantoja	11024 Montgomery Blvd, NE, #306,	505-366-9992	3/29/2019	C&D,MSW
Bernalillo	Atlas Pumping Co., Inc.	JR Fanelli	PO Box 10477, Albuquerque, NM 87184	505-898-3936	3/30/2022	Other
Bernalillo	RC Trucking	Cesar Elizondo	9804 Rio Camino Ave., SW, Albuquerque, NM	505-730-6256	2/14/2024	PCS
Bernalillo	Gregory Freeland	Gregory Freeland	9609 Snow Heights Blvd., NE, Albuquerque,	505-923-0680	3/28/2024	C&D,MSW
Bernalillo	Removal Solutions, LLC	Dustin Ritz	4115 Rancho Encanto, NW, Albuquerque, NM	505-715-0505	4/15/2024	C&D
Bernalillo	R & M Metals, LLC	Michael Rubi	2227 Mayflower Road, SW, Albuquerque, NM	505-877-2192	1/14/2020	C&D,MSW
Bernalillo	R. M. & Son Trucking, Inc.	Patricia C. Martinez	P.O. Box 634, Corrales, NM 87048	5058982995	11/3/2014	C&D,MSW
Bernalillo	Robert Salazar Trucking	Robert Salazar	2031 Metzgar Road, SW, Albuqerque, NM 87105	5058774071	11/4/2014	C&D,MSW
Bernalillo	Southwest Abatement, Inc.(Kinney St.)	Val Reser	4609 Kinney Street, SE, Albuquerque, NM 87105	505-873-2967	9/30/2019	Asbestos,C&D,MSW,PCS,Sludge
Bernalillo	Anthony R. Robles dba Daves Custom Hauling	Anthony R. Robles	4804 Overland Street, NE, Albuquerque, NM	505-830-4200	8/25/2013	MSW
Bernalillo	AUI, Inc.	Steve Drennan	P.O. Box 9825, Albuquerque, NM 87119	5052424848	7/29/2018	C&D
Bernalillo	Casias Trucking, LLC	Louie Casias	7900 Richwood, NW, Albuquerque, NM 87120	5058362068	2/1/2013	Asbestos,Ash,C&D,Industrial solid waste,MSW,PCS,Sludge
Bernalillo	Escobedo's Transportation	Gabriel M.Escobedo	1024 1/2 Edith Blvd., NE, Albuquerque, NM 87102	5052431950	5/19/2013	C&D,MSW
Bernalillo	Freddie and Sons Trucking	Grace R. Vigil	P.O. Box 5298, Bernalillo, NM 87004	5054696577	6/20/2013	C&D,MSW
Bernalillo	GranCor Enterprises, Inc.	Michael Grandjean	2121 Menaul Blvd., NE, Albuquerque, NM 87107	5058720005	9/14/2021	Asbestos,C&D

Commercial Haulers Registered in New Mexico

May 6, 2019

COUNTY	FACILITY NAME	CONTACT NAME	CONTACT ADDRESS	CONTACT PHONE	STRATION EXPIRA	PERMITTED WASTE
Bernalillo	Groundhog Excavating, Inc.	Troy Otero	805 Nikanda Road, NE, Albuquerque, NM 87107	5052432133	1/3/2024	C&D
Bernalillo	Southwest Regency Homes, LLC dba Haul It All Services	Richard Shaw	2 View Drive, Cedar Crest, NM 87008	5055535545	2/6/2023	C&D,MSW
Bernalillo	New Mexico Waste Services, Inc.	Bill Radosevich, President	P.O. Box 1780, Tijeras, NM 87059	5058329005	11/7/2023	Asbestos,Ash, C&D, MSW, Offal, PCS, Sludge
Bernalillo	Advanced Chemical Transport, Inc.	Polly Wagner	6137 Edith Blvd. NE, Albuquerque, NM 87107	5053495220	5/11/2017	Asbestos,C&D,Industrial solid waste,Infectious waste,MSW,OCD waste, PCS, TFCH
Bernalillo	L. Mora Trash Hauling	Delta Mora	5712 Piedra Road NW, Albuquerque, NM 87114	5058988162	8/16/2023	C&D,MSW
Bernalillo	Star Paving Company	Joe M. Cruz	PO Box 12333, Albuquerque, NM 87195	5058770380	6/8/2017	C&D,MSW
Bernalillo	Stericycle Specialty Waste Solutions, Inc.	Chris Morton	5338 Williams Street SE, Albuquerque, NM 87105	5058730964	9/10/2020	Asbestos,Ash,Industrial solid waste,Infectious waste, MSW, PCS, Sludge, Spill from a chemical,TFCH
Bernalillo	New Mexico Disposal Company, LLC	Ernie Byers	1204 Main St., Suite 102, Los Lunas, NM	5058665870	12/21/2015	MSW
Bernalillo	CGL Transport, LLC	Deanne Watkins	6139 Edith Blvd., NE, Albuquerque, NM 87107	5053424704	2/9/2016	Asbestos,Ash,C&D,Industrial solid waste,Infectious waste,MSW,OCD waste, PCS, RD&D, Sludge, TFCH
Bernalillo	Desert Group, LLC (The)	Wendy G. Fong	8201 Golf Course Rd., SW, Str. D3 #295,	5056152033	2/15/2013	C&D,MSW
Bernalillo	Placitas Ground Control	Adrian Arriola, Owner	P.O. Box 1131, Placitas, NM 87043	5054802850	8/15/2021	MSW
Bernalillo	Stericycle (Hauler)	Matt Valencia	1920 First Street NW, Albuquerque, NM 87102	505-247-2144	2/2/2021	Infectious waste,MSW,Sludge
Bernalillo	Dominguez Trucking	Mario Dominguez, Owner	201 Moon, NE, Albuquerque, NM 87123	5053192302	6/28/2016	C&D,MSW
Bernalillo	Bogan Brothers Painting Co, Inc.	Paul Chynoweth	3435 Vassar Dr., NE, Albuquerque, NM 87107	505-898-8000	7/22/2021	Other
Bernalillo	Special Waste Disposal	Adrian Montano	5904 Florence Ave., NE, Albuquerque, NM 87113	505-828-2650	10/14/2021	Asbestos,C&D,PCS

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Bernalillo	Thermo Fluids Inc.	Ardis Hogan	42 Longwater Drive, Norwell, MA 02061	781-792-5760	12/7/2021	MSW,PCS,Sludge
Bernalillo	Aztec Grading, Inc.	Mike Seay, President	P.O. Box 50790, Albuquerque, NM 87101	5052653641	1/31/2022	C&D,PCS
Bernalillo	TCB Corporation	Richard A. Rood, President	3220 Aztec Road NE, Albuquerque, NM 87107	5058720908	2/18/2023	C&D,MSW
Bernalillo	Above and Beyond Carpet Care, LLC	Enrique M. Castaneda	5001 Central Avenue NW, Albuquerque, NM	5058395154	3/14/2022	Infectious waste
Bernalillo	Pereyra Trucking, LLC	Jorge Pereyra	2324 Don Andres Rd, SW, Albuquerque, NM	505-877-2151	12/10/2023	Asbestos,C&D,Industrial solid waste,MSW,PCS,Sludge
Bernalillo	MAXTEK Contractors, Inc.	Anthony R. Rivera	2201 Phoenix Ave., NE, Albuquerque, NM 87107	505-888-5733	10/31/2018	C&D,MSW,Sludge
Bernalillo	Guzman Construction Solutions, LLC	Patsy Guzman	6020 Industry Way, SE, Albuquerque, NM 87105	505-452-0663	10/1/2020	C&D,MSW,PCS,Sludge
Bernalillo	Rockefeller's Cleaning and Restoration Co.	Tammie Pritchett	5514 Coal Ave, SE, Albuquerque, NM 87108	505-268-5585	9/17/2019	Infectious waste
Bernalillo	Hudspeth & Associates, Inc.	Akil McCloud	3756 Hawkins St., NE, Albuquerque, NM 87109	505-200-9373	10/6/2019	Asbestos,Other
Bernalillo	Williamson Restoration, Inc.	Tim Williamson	2323A Aztec, Albuquerque, NM 87107	505-814-7800	11/19/2018	Asbestos
Bernalillo	Oncore of New Mexico	Otley Smith	PO Box 94525, Albuquerque, NM 87199	505-480-4141	1/31/2019	Infectious waste
Bernalillo	S & H Hauling, LLC	Devin Sydenstricker	119 Industrial Ave., NE, Albuquerque, NM 87107	505-304-4324	2/6/2019	C&D,MSW
Bernalillo	Gamboa Trucking, LLC	Humberto C. Gamboa	PO Box 3157, Albuquerque, NM 87190	505-991-3347	2/28/2024	Asbestos,C&D,Industrial solid waste,MSW,PCS,Sludge
Bernalillo	Friedman Recycling of Albuquerque, LLC	David Friedman	3640 W. Lincoln St., Phoenix, AZ 85009	602-269-9324	10/29/2023	MSW
Bernalillo	W. Silver Recycling of New Mexico	Patrick Merrick	1720 Magoffin, El Paso, TX 79901	505-244-1508	5/19/2019	MSW
Bernalillo	Victor's Landscaping	Victor Aguilar, Registered Agent	1414 De Baca Circle, SW, Albuquerque, NM 87105	5052690322	11/20/2017	C&D,MSW
Bernalillo	Ivan Castillo	Ivan Castillo	1536- 5 Points Road SW, Albuquerque, NM 87105	5053213777	2/8/2018	C&D,PCS

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Bernalillo	Shamrock Grading Services	Robert McCarthy, Owner	718 Carlito Road, NE, Albuquerque, NM 87113	5053451545	2/2/2023	C&D,MSW
Bernalillo	Apodaca Earthmoving, Inc.	Christina Apodaca, Vice President	5228 Edith Blvd., NE, Albuquerque, NM 87107	5053449493	2/13/2018	C&D
Bernalillo	Pete's Top Quality Landscaping, LLC	Pete Vigil, Jr.	9300 Holly, NE, Albuquerque, NM 87122	505-822-9822	2/20/2018	C&D,PCS
Bernalillo	RSEV, LLC dba ERMS	Richard Serna or Ernest Vigil	4804 Hawkins Street NE, Albuquerque, NM 87109	505-877-4239	2/8/2023	Asbestos,C&D,MSW
Bernalillo	Ernest Ruiz Trucking	Ernest Ruiz	7401 Sanchez Road SW, Albuquerque, NM 87105	5053156281	4/3/2018	C&D,MSW,PCS
Bernalillo	Tim G. Montoya	Tim Montoya	PO Box 1534, Bernalillo, NM 87004	5058674847	3/22/2023	C&D,MSW
Bernalillo	Reliable Waste Management, LLC	Staci Shands, CEO, Registered Agent	P.O. Box 65655, Albuquerque, NM 87193	5055061511	5/21/2018	MSW
Bernalillo	A-Core of New Mexico, Inc.	Jessica Nelson	6374 Desert Road, SE, Albuquerque, NM 87105	505-873-6561	2/1/2022	C&D
Bernalillo	Concrete Washout Systems of NM	Leticia Rodriguez	1700 Daybreak Rd., SE, Rio Rancho, NM 87124	505-892-2550	2/13/2022	C&D
Bernalillo	Lucero Express, LLC	Peter Lucero	7451 Pan American Fwy, NE, Albuquerque, NM 87109	505-681-9921	6/26/2020	Asbestos,Ash,C&D,MSW,OCD waste,PCS,Sludge,Spill from a chemical
Bernalillo	New Mexico Waste Recovery, LLC	Chris Morton	6889 Augusta Hills Dr., NE, Rio Rancho, NM	505-545-9824	6/19/2020	Infectious waste
Bernalillo	LC Trucking, LLC	Louie P. Casias	7900 Richwood, NW, Albuquerque, NM 87120	505-991-1000	6/19/2020	Asbestos,Ash,Industrial solid waste,MSW,OCD waste, PCS, Sludge, Spill from a chemical,TFCH
Bernalillo	J. Casias Trucking LLC	Joshua Casias	PO Box 66165, Albuquerque, NM 87193	505-980-0221	6/19/2020	Asbestos,Ash,Industrial solid waste,MSW,OCD waste, PCS, Sludge, Spill from a chemical,TFCH
Bernalillo	KCRJ Trucking, LLC	Richard Casias	8015 Emerald Drive, Albuquerque, NM 87120	505-991-2000	6/19/2020	Asbestos,Ash,Industrial solid waste,MSW,OCD waste, PCS, Sludge, Spill from a chemical,TFCH
Bernalillo	American Restoration Water & Fire, LLC	Kathy Korte	4801 Lang Ave, NE, Suite 110, Albuquerque, NM	505-821-7900	9/21/2020	Asbestos,C&D,Infectious waste

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Bernalillo	JENM, Inc.	Jenny Valencia	4801 Lang Ave., NE, Suite 110, Albuquerque,	505-821-7900	10/27/2020	Asbestos
Bernalillo	Bin There Dump That (Paul Kelly LLC dba)	Justin Hyde	1613 Erbbe St., NE, Albuquerque, NM 87112	505-299-0641	8/9/2021	C&D,MSW
Bernalillo	Otero Transport LLC	Rubel Otero	7539 Sanchez Rd. SW, Albuquerque, NM 87105	505-804-3512	10/27/2021	Ash,C&D,MSW,PCS,Sludge
Bernalillo	Smithco Construction, Inc.	Toney Sanchez	PO Box 45, Caballo, NM 87931	575-894-6161	4/9/2024	C&D,Sludge
Bernalillo	Turley LLC dba Bio-One Albuquerque	Tyler Snow	13170 Central Ave., SE, Albuquerque, NM 87123	505-400-7370	7/19/2023	Infectious waste
Bernalillo	GranCor Environmental, LLC	Ediberto Ramos	PO Box 23393, Albuquerque, NM 87129	505-884-1683	9/14/2021	Asbestos
Bernalillo	Molinar's Trucking, LLC	Rene Molinare	3039 Stela, SW, Albuquerque, NM 87121	505-877-1099	4/16/2024	PCS
Bernalillo	Daniel Trujillo Trucking	Daniel Trujillo	194 Tafoya Road, Belen, NM 87002	5053287389	8/10/2014	C&D,MSW
Bernalillo	EMC Trucking, LLC	Carmen Chavez	P.O. Box 1333, Tijeras, NM 87059	5054807058	8/10/2014	C&D,MSW
Bernalillo	Keers Remediation Inc.	Amarante Jaramillo Jr.	5904 Florence Ave., NE, Albuquerque, NM 87113	505-823-9006	11/8/2023	Asbestos,PCS,TFCH
Bernalillo	JPR Decorative Gravel, Inc.	John L. Campbell	2518 Coors Blvd., SW, Albuquerque, NM 87105	5058773849	8/21/2020	Asbestos,Ash,C&D,Industrial solid waste,MSW,OCD waste, PCS, Sludge, Spill from a chemical,TFCH
Bernalillo	J.W. Bar Livestock Transportation	Jim Woods	P.O. Box 245, San Rafael, NM 87051	4055581470	3/9/2014	C&D,MSW,PCS
Bernalillo	Jaramillo Trucking	Monica Martinez	10015 Rio Corto Ave., SW, Albuquerque, NM		1/29/2014	C&D,MSW
Bernalillo	L & M Trucking Sand & Gravel	Leo G. Lovato	P.O. Box 45018, Rio Rancho, NM 87174	5052491178	7/15/2021	C&D,MSW
Bernalillo	Mario Tafoya dba MTR Trucking	Connie Tafoya	4144 Julia Lane, SW, Albuquerque, NM 87121	5054529395	2/2/2014	C&D,MSW,PCS
Bernalillo	Quality Trucking, LLC	Sharon E. Rodriguez	2459 Del Sur Drive, SW, Albuquerque, NM 87105	5058367225	2/2/2014	C&D,MSW,PCS,Sludge
Bernalillo	Sanchez & Son Trucking	Daniel Sanchez	93 12th Ave., NW, Rio Rancho, NM 87144	5052806118	3/10/2014	C&D,MSW,PCS

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Bernalillo	Valley Excavation & Trenching Inc.	Victor Baca	2814 San Ygnacio, SW, Albuquerque, NM 87105	5054598970	2/16/2014	C&D
Bernalillo	R. Casias Trucking	Richard Casias	P.O. Box 66165, Albuquerque, NM 87193	5059912000	2/1/2013	Asbestos,Ash,C&D,Industrial solid waste,MSW,PCS
Bernalillo	Ladybug Hauling	Richard Tenorio	815 Marquez Lane, Albuquerque, NM 87103	505-319-0310	8/15/2021	C&D,MSW
Bernalillo	Jackson Compaction, LLC	Marlon Schaus	6420 2nd Street NW, Albuquerque, NM 87107	5053448848	12/8/2014	C&D,MSW
Bernalillo	Jackson Compaction, LLC	Marlon Schaus	6420 2nd Street NW, Albuquerque, NM 87107	5053448848	12/8/2014	C&D,MSW
Bernalillo	Independent Roll-Off Service	Santiago Maes	241 East Plaza Drive, Clovis, NM 88101	5757605449	3/4/2014	C&D,MSW
Bernalillo	East Mountain Disposal, Inc.	Barton A. McCrite	P.O. Box 756, Tijeras, NM 87059	5052864798	2/7/2024	C&D,MSW
Bernalillo	MRA Trucking, LLC	Martin R. Aguilar	4601 Delamar NE, Albuquerque, NM 87001	5052384938	4/23/2014	Asbestos,Ash,C&D,Industrial solid waste,MSW,Offal,PCS,Sludge,TFCH
Bernalillo	Pacheco Trucking, Inc.	Henry Pacheco, Jr.	P.O. Box 10339, Albuquerque, NM 87184	5058987695	2/6/2020	C&D,MSW
Bernalillo	Chuska Trucking, LLC	Joe Barton, Owner/Operator	724 Halter Drive, SW, Albuquerque, NM 87121	5055532332	7/9/2014	C&D,MSW
Bernalillo	Double Take Trucking	Kenneth L. Miller	3809 Dancing Star Way, NW, Albuquerque, NM	5054405863	7/9/2014	C&D,MSW
Bernalillo	Alex Co.	Julia E. Chavez	9000 Zuni, SE, A-31, Albuquerque, NM 87123	5052967369	7/17/2013	C&D,MSW
Bernalillo	Blue Bison, LLC	Shawn Bitah, Manager	135 Virginia Street NE, Albuquerque, NM 87108	505-340-3393	8/15/2021	Asbestos
Bernalillo	CJT Trucking	Carlos J. Tafoya, Owner	449 Asbury Road, NE, Rio Rancho, NM 87124	5059177467	7/29/2014	MSW
Bernalillo	Coronado Wrecking & Salvage Company, Inc.	Keith Whale	4200 Broadway Blvd., SE, Albuquerque, NM	5058772821	4/10/2023	Asbestos,C&D,MSW
Bernalillo	Custom Grading, Inc.	Michael Montoya, President & Regist	P.O. Box 94088, Albuquerque, NM 87199	505-897-4225	4/24/2023	C&D,MSW
Bernalillo	IDA Trucking Services, LLC	Eloy Castaneda, Organizer &	6633 Shiprock Drive, NE, Rio Rancho, NM 87144	5052803467	3/4/2014	C&D,MSW,PCS

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Bernalillo	Double J Trucking	Phyllis Ruiz	2726 Bridge Blvd., SW, Albuquerque, NM 87105	5059773007	4/8/2014	Asbestos,C&D,MSW,PCS,TFCH
Bernalillo	Romero Excavation & Trucking, Inc.	Nol H. Romero	5520 Broadway Blvd., SE, Albuquerque, NM	5058733300	2/27/2013	C&D,MSW
Bernalillo	Saiz Trucking & Earthmoving	Larry P. Saiz	13412 Executive Hills Way, SE, Albuquerque,	5054507232	10/8/2018	Asbestos,C&D,Industrial solid waste,MSW,PCS,Sludge,TFCH
Bernalillo	Salls Brothers Construction	Victor Valles	P.O. Box 66239, Albuquerque, NM 87193	5058738780	2/6/2019	MSW,PCS
Bernalillo	Southwest Hazard Control, Inc.	Richard A. Serna	9112 Susan, SE, Albuquerque, NM 87123	5052986930	8/16/2023	Asbestos
Bernalillo	Zeke Chaves Trucking	Zeke Chavez	1731 Coulter, NE, Rio Rancho, NM 87144	5059807350	11/7/2018	C&D,MSW,PCS
Bernalillo	Advanced Disposal Services, Inc.	Jose Gonzalez	2881 Shannen Oxmoor Road, Birmingham, AL	8003443145	12/14/2014	MSW
Bernalillo	JG Trucking	Joe Garcia	9513 Camino Del Sol, NE, Albuquerque, NM	5052422238	12/8/2014	C&D,MSW
Bernalillo	All-American Waste Removal(Capone	Joe Capone	P.O. Box 45627, Rio Rancho, NM 87124	5053457997	8/15/2021	C&D,Industrial solid waste,MSW,Offal,PCS,Sludge,TFCH
Bernalillo	Glenn Waldo Trucking	Glen Waldo	1252 Mimbres, SW, Albuquerque, NM 87121	5052506503	7/26/2015	Asbestos,Ash,Industrial solid waste,MSW,PCS,Sludge
Bernalillo	GandyDancer, LLC d/b/a GandyDancer Railroad	Phillip Gallegos	5715 Industry Way SE, Albuquerque, NM 87105	5058732222	9/21/2020	C&D,MSW,PCS,Spill from a chemical
Bernalillo	Sundance Roofing, Inc.	Luis Barbara	2504 Broadway Blvd., SE, Albuquerque, NM	5058736125	8/17/2015	C&D
Bernalillo	Joe's Trucking, LLC	Diana Alfaro	10773 S Hwy 14, Tijeras, NM 87059	5052819115	11/27/2020	Asbestos,Ash,C&D,Industrial solid waste,MSW,PCS,Sludge,Spill from a chemical
Bernalillo	Alpha Appliance Recyclers	Jose A. Villegas	2021 Barcelona Rd, SW, Albuquerque, NM 87105	505-304-7008	10/28/2015	C&D,MSW
Bernalillo	Almanzar Trucking	Michael S. Almanzar, Owner	P.O. Box 44841, Rio Rancho, NM 87174	505-975-1863	1/26/2015	C&D,MSW
Bernalillo	Estrategy Consulting, LLC	Roger D. Mitchell, Ops. Director	4500 Anaheim Avenue NE, Suite A,	5058564000	12/23/2019	C&D,Infectious waste,MSW
Bernalillo	Altrans, Inc.	Al Sensenig	21 Orion Lane, Tijeras, NM 87059	5052812503	5/11/2015	C&D,PCS,Sludge

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Bernalillo	Altrans, Inc.	Al Sensenig	21 Orion Lane, Tijeras, NM 87059	5052812503	5/11/2015	C&D,PCS,Sludge
Bernalillo	R & B Transportation, LLC	Richard M. Martinez	3701 Commercial Street, NE, Albuquerque, NM	5058210748	5/8/2020	MSW,PCS
Bernalillo	Rinchem Company, Inc.	Bill Moore	6133 Edith Blvd., NE, Albuquerque, NM 87107	5053453655	7/22/2015	Asbestos,Ash,C&D,Industrial solid waste,Infectious waste,MSW,OCD waste,PCS,Sludge,TFCH
Bernalillo	Paul Gonzales Trucking, Inc.	Eddie Gonzales	2371 Aztec Road, NE, Albuquerque, NM 87107	5058371440	10/14/2014	Asbestos,C&D,MSW,PCS,Sludge
Bernalillo	Sandia Heights Services, LLC	John R. Pickering, Manager	10 Tramway Loop, Albuquerque, NM 87122	5058566347	7/15/2021	C&D,MSW
Bernalillo	PG Enterprises, LLC	Payam Ghoreishi	301 Murry, SE, Albuquerque, NM 87105	5058739593	10/27/2019	Asbestos,Ash,C&D,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill
Bernalillo	Galvan Enterprises	Daniel A. Galvan, Owner	204 Carlos Road, NE, Albuquerque, NM 87113	5052522169	9/23/2014	C&D,MSW
Bernalillo	MCT Waste, LLC	Robert Archuleta	7451 Pan American FWY, NE, Albuquerque,	5053458651	3/6/2020	C&D,MSW
Bernalillo	Ruff-n-Tuff Trucking	David P. Astorga	1024 Edith Blvd., NE, Albuquerque, NM 87102	5058032615	7/15/2021	C&D,MSW
Bernalillo	Dumpster Express, LLC	Tom Richardson, Registered Agent	7418 Riverton Drive, NW, Albuquerque, NM	5058993867	11/19/2019	C&D,Industrial solid waste,MSW
Bernalillo	Western Disposal Services, Inc.	John J. Richardson, President	9701 Lona Lane, NE, Albuquerque, NM 87111	5054507671	2/7/2024	C&D,Industrial solid waste,MSW
Bernalillo	Perea & Son Trucking, LLC	Adolfo Sonny Perea	4620 Sunshine Place, SW, Albuquerque, NM	505-238-7587	11/9/2014	C&D,MSW
Bernalillo	D & D Dumping Dirt, LLC	Donald J. Harrison	5600 Creggs, NW, Albuquerque, NM 87120	5055500325	11/5/2014	C&D,MSW
Bernalillo	Construction, Contracting & Management, Inc.	Amanda Blount	8019 Edith Blvd., NE, Albuquerque, NM 87113	5058987777		None
Bernalillo	Flores Trucking	Alfred Flores, Owner	2116 San Venito, NW, Albuquerque, NM 87104	5058428144	11/4/2014	C&D,MSW
Bernalillo	Hernan E. Arcos C. dba HA Trucking	Hernan E. Arcos	1729 Maxine Street, NE, Albuquerque, NM 87112	5057122179	11/19/2014	C&D,MSW
Bernalillo	J.A.A.M. Trucking Co.	Bobby C. Medina, Owner	10932 Edith, NE, Albuquerque, NM 87113	5052206258	1/26/2020	C&D,MSW,Other - auto fluff

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Bernalillo	Mario Rodriguez	Mario Rodriguez	916 Airway, SW, Albuquerque, NM 87105	5052420353	11/4/2014	C&D,MSW,PCS
Bernalillo	Muniz & Sons Trucking	Andrew J. Muniz	4512 Sun Valley Drive, Albuquerque, NM 87105	5057300119	11/4/2014	C&D,MSW
Bernalillo	Perea's Grading & Trucking	Kenneth Perea, Owner	8843 Edith Blvd., NE, Albuquerque, NM 87113	5054592325	11/3/2014	C&D,MSW
Chaves	Cesar's Trash Tralilers	Guadalupe Sanchez	5618 Kincaid Road , Roswell, NM 88203	575-347-7127	4/14/2020	MSW
Chaves	De La Cerda Trucking	Carlos De La Cerda, Jr., Owner	860 Swinging Spear Road, Roswell, NM	5756263513	6/9/2016	MSW
Chaves	Waide Sand & Gravel Co.(Hondo Resources, Inc.	James A. Waide	P.O. Box 2626, Roswell, NM 88202	575-623-9555	10/14/2021	C&D
Chaves	Goodwin Enterprises LLC	Dennis C. Goodwin	P.O. Box 2955, Roswell, NM 88202	5156221394	8/10/2014	C&D,PCS
Chaves	Desert West Enterprises, LLC	Larry C. Parker	PO Box 3000, Roswell, NM 88201	575-637-5346	11/7/2021	C&D,MSW
Chaves	R Marley LLC	Dane Marley	PO Box 1658, Roswell, NM 88202	575-347-0434	9/23/2021	Industrial solid waste,OCD waste,PCS
Chaves	Whitcamp Disposal, LLC	Roger Whitcamp, Member	RR 3 1600 Old Dexter Highway, Roswell, NM	5756226716	8/19/2020	C&D,MSW
Chaves	LDL Excavating, Inc.	Larry D. Lopez	3467 N. Sycamore, Roswell, NM 88201	575-623-8986	6/22/2022	MSW
Chaves	NG Trucking, Inc.	Ignacio compa	#9 Birdsall Pl., Roswell, NM 88203	575-910-4661	3/7/2022	C&D
Chaves	Richard or George Delnobile dba Richards Trash Hauling	Richard or George Delnobile	15 Bronco Road, Dexter, NM 88230	5753472400	5/22/2018	MSW
Chaves	Custom Construction & Roofing, LLC	Brandon Arnold	PO Box 1058, Roswell, NM 88202	5754205414	4/19/2023	Asbestos,C&D,MSW
Chaves	A De La Cerda Trucking	Armando De La Cerda	1001 W. Hobson Rd, Roswell, NM 88203	575-420-6090	12/5/2022	C&D
Chaves	Jimmy T. Perkins Trucking	Jimmy T. Perkins	48 Star Road, Roswell, NM 88201	575-840-4840	3/28/2021	MSW,PCS,Sludge
Chaves	Michael Chavez Trucking, LLC	Michael Chavez	2200 S. Union, Roswell, NM 88203	575-799-4542	5/16/2016	MSW,PCS,Sludge

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Chaves	Atkins Engineering Associates, Inc. dba Jack	Jackie Atkins	2904 W. 2nd Street, Roswell, NM 88201	5756242420	12/5/2022	C&D,MSW,PCS
Cibola	C & E Concrete, Inc.	Walter L. Meech	PO Box 2547, Milan, NM 87021	505287-2944	9/25/2023	C&D,PCS
Cibola	Moleres Trucking	Dominic R. Moleres, Owner	801 Kingman, Grants, NM 87020	5052901276	10/22/2023	C&D,Industrial solid waste,MSW
Cibola	E & R Trucking, Inc.	Eugene Chavez	P.O. Box 42, Cubero, NM 87014	5052902493	8/18/2020	Industrial solid waste
Cibola	Montano Trucking	Frank Montano	90516 San Mateo Road, Grants, NM 87020	5059998804	2/2/2014	C&D,MSW
Colfax	B.T.U. Block & Concrete, Inc.	Buddy Sonchar, President	PO Box 578, Raton, NM 87740	575-445-2373	5/5/2019	C&D,MSW
Colfax	Hunter Trucking, Inc.	Robert (Bob) T. Hunter	HCR 62 Box 112, Raton, NM 87740	5757704068	7/2/2018	MSW
Colfax	Arthur Rolloff, Inc.	Donnie Arthur	P.O. Box 609, Raton, NM 87740	5754452364	6/19/2020	C&D,MSW
Colfax	Bruce's Gravel, LLC	Bruce Jassmann	P.O. Box 414, Eagle Nest, NM 87718	5053779471	9/25/2023	C&D,MSW
Colfax	Ciganovich Construction Inc.	Mark Ciganovich	429 Stone Street, Raton, NM 87740	5754454192	10/22/2023	C&D,MSW
Colfax	EnviroWaste, LLC dba Rocky Mountain Roll-Off	David M. Mangelsdorf,	P.O. Box 541, Raton, NM 87740	5754458072	2/27/2013	C&D,MSW
Curry	NM-Solid Waste Clovis	Robert Bernard	PO Box 5477, Clovis, NM 88101	575-762-9209	2/26/2024	Asbestos,MSW
Curry	Ed's Recycling Center, Inc.	Michael Lingnau	605 S. Prince St. , Clovis, NM 88101	575-762-7699	2/25/2020	C&D,MSW,PCS
Curry	Stephens Construction & Ready Mix, Inc.	Deborah Autrey, President	P.O. Box 192, Texico, NM 88135	575-762-1218	9/22/2020	MSW,PCS
Curry	Junk Be Gone	Antoni E. Bogusz, Owner	1517 Kiowa Trail, Clovis, NM 88101	5757698886	9/8/2013	C&D
Curry	Nick Griego & Sons Construction, Inc.	Gerald S. Griego, Project Manager	1155 Kimberly Lane, Clovis, NM 88101	5759355400	10/27/2013	C&D
Curry	Ed's Recycling Center, Inc.	Michael Lingnau	605 S. Prince St. , Clovis, NM 88101	575-762-7699	2/25/2020	C&D,MSW,PCS

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De Baca	24/7 Restoration and Recycling	Sheri Head, Owner	P.O. Box 576, Fort Sumner, NM 88119	5757992283	5/22/2022	C&D,MSW
De Baca	Bridges Trash Hauling	Wendell Bridges, Owner	PO Box 694, Ft. Sumner, NM 88119	5753557301	3/8/2018	MSW
De Baca	C & L Solid Waste Services	Carlos J. Chavez	P.O. Box 481, Fort Sumner, NM 88119	5757994785	10/28/2016	MSW
Dona Ana	Waste Connections of NM dba Southwest Disposal/Las	Roger Bristow, Compliance	2485 W. Amador, Las Cruces, NM 88005	5755248482	7/9/2020	C&D,MSW,PCS,Sludge
Dona Ana	Mesilla Valley Disposal Ltd. Co.	Mark M. Olson, Owner	1200 Fort Fillmore Road, Mesilla Park, NM 88047	5756479094	4/20/2022	C&D,MSW
Dona Ana	South Central SWA Authority	Patrick Peck	2865 W. Amador Avenue, Las Cruces, NM 88005	5755283800	6/20/2021	Asbestos,Brush/Green waste,C&D,MSW,Other,PCS,Sludge, Spill from a chemical
Dona Ana	Secure Medical Waste, Inc.	Larry F. Thoma, Owner	7950 Market Place, Las Cruces, NM 88007	5756479244	1/31/2016	Infectious waste
Dona Ana	Two Bit Trucking Company, LLC	Bud Hettinga, Owner	P.O. Box 1831, Las Cruces, NM 88004	5755261915	3/5/2017	C&D
Dona Ana	H2O Environmental, Inc.	Kris Ahrens	201-1 Quinella Dr., Sunland Park, NM 88063	915-218-4634	10/27/2019	Ash,Industrial solid waste,MSW,PCS,Sludge,Spill from a chemical
Dona Ana	Chaparral Disposal Services	Julian Gaytan	549 North Road, Chaparral, NM 88081	575-824-0887	1/28/2020	MSW
Dona Ana	Monrreal Trucking, Inc.	Fernando Monrreal	PO Box 2250, Sunland Park, NM 88063	915-820-1765	2/11/2020	Industrial solid waste,MSW
Dona Ana	Miles Hauling Service LLC	Miles Widmer	PO Box 7347, Las Cruces, NM 88006	5755248747	12/28/2017	MSW
Dona Ana	Desierto View Disposal Service	Alfredo Gomez	704 Paloma Dr., Chaparral, NM 88081	5758244852	2/7/2018	MSW
Dona Ana	Medina Garbage Disposal Services	Jesus Medina, Owner	664 Old Laredo Road, Chaparral, NM 88081	9155253139	2/26/2023	C&D,MSW
Dona Ana	Elias Fernandez	Elias Fernandez	PO Box 2393, Sunland Park, NM 88063	9156334851	2/12/2023	C&D
Dona Ana	Crosstown Construction & Trucking, LLC	Rocky Nevarez	PO Box 375, Dona Ana, NM 88032	5755236101	4/10/2023	Asbestos,C&D,MSW

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Dona Ana	X Gomez Logistics, LLC	Javier Gomez	413 La Florida, Canutillo, TX 79835	915-877-3058	12/22/2021	Ash,MSW,OCD waste,PCS,Residue from Chemical,Sludge,Spill from a chemical,TFCH
Dona Ana	DE Ready Mix	David Hernandez	5300 Del Rey Blvd., Las Cruces, NM 88012	575-649-2885	9/14/2021	Sludge
Dona Ana	Bureau of Landfill Management - Las Cruces	David Jevons	1800 Marquess St., Las Cruces, NM 88005	575-525-4300	10/1/2023	PCS
Dona Ana	Southwest Envirotec	Henry Medina	5486 Del Rey Blvd., Las Cruces, NM 88012	575-382-9596	10/18/2023	Sludge
Eddy	MSWS, LLC	Guadalupe C. Trevino III	P.O. Box 3247, Carlsbad, NM 88221	5758858674	3/26/2015	Asbestos,Ash,C&D,Industrial solid waste,OCD waste,PCS,Sludge
Eddy	B & R Trucking, Inc.	Trey Hughes, President	4311 Monica Lane, Carlsbad, NM 88220	5752366012	7/18/2021	Asbestos,C&D,Industrial solid waste,OCD waste,PCS,Sludge
Eddy	Southwest Environmental, LLC	Randy Wilson	110 Comanche Dr., Carlsbad, NM 88220	575-361-9425	12/23/2019	MSW,OCD waste,Other,PCS,Sludge
Eddy	S Brothers Waste Services, Inc.	Chris Sestric	512 W. Texas Ave., Artesia, NM 88210	575-748-1213	11/6/2022	Asbestos,C&D,OCD waste,PCS,Residue from Chemical,Sludge
Eddy	J & S Enterprises	Terry Navanette	7400 Roswell Highway, Artesia, NM 88210	5757062394	2/6/2023	C&D,MSW
Eddy	BDS Enterprises	Brian Stevens	2510 Monte Vista, Carlsbad, NM 88220	575-689-8324	1/5/2022	OCD waste,PCS
Eddy	TWT, LLC	Carl Sunderland	2210 Iris Street, Carlsbad, NM 88220	575-887-4048	4/8/2020	Asbestos,Ash,C&D,Industrial solid waste,OCD waste,PCS,Sludge
Grant	Fuel Center Plus, Inc.	Richard P. Griffin	P.O. Box 2737, Silver City, NM 88062	5755382441	2/21/2024	C&D,Industrial solid waste,MSW,Sludge
Grant	Roadrunner Disposal, Inc.	Dale I. Dodds	P.O. Box 929, Santa Clara, NM 88026	5755372991	4/14/2021	C&D,MSW
Grant	Garcia Waste Management	Steven L. Garcia	P.O. Box 568, Bayard, NM 88023	5753134053	6/30/2019	C&D,MSW
Grant	Ridge Road Mobile, Ltd., Co.	Ida Baker	P.O. Box 1380, Silver City, NM 88061	5755385339	4/8/2021	MSW
Grant	Richard's Bobcat Services	Richard Mata	502 N. Silver St., Silver City, NM 88061	575-956-3682	2/26/2023	C&D,MSW

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Grant	Juan Medina Garcia	Juan Median Garcia	P.O. Box 946, Silver City, NM 88062	5753888051	7/8/2015	MSW
Grant	Havens Construction Company	Michael Roberts	PO Box 2159, Silver City, NM 88062	5755389889	2/26/2023	C&D
Guadalupe	Ortega's Wrecker Services & Auto Repair	George Ortega, Jr.	446 Historic Route 66, Santa Rosa, NM 88435	5754723204	2/5/2023	C&D,MSW
Guadalupe	White Horse Services LLC	James C. Haight	1320 Paisano Road, Puerto de Luna, NM	5754720153	8/7/2023	MSW
Guadalupe	J. R. Striping & Pavement Maintenance	Jose R. Lucero	P.O. Box 63, Anton Chico, NM 87711	5754274112	2/3/2016	C&D,MSW
Lea	JL Landes	Judy Landes	P.O. Box 344, Eunice, NM 88231	5753943075	3/18/2014	C&D,MSW
Lea	Trash Eaters, LLC	Jared Baker	PO Box 1542, Lovington, NM 88260	575-390-4549	9/16/2018	C&D,MSW
Lea	Hungry Horse, LLC	Paige McNeill	PO Box 1058, Hobbs, NM 88241	575-393-3386	2/8/2023	OCD waste,PCS
Lea	Gandy Corporation	Larry Gandy	PO Box 2140, Lovington, NM 88260	575-396-0522	4/17/2020	OCD waste,PCS,Sludge
Lea	Lea County Septic Tank Service	Elijah Taylor, Owner	PO Box 703, Hobbs, NM 88240	575-397-2382	1/27/2020	C&D,MSW
Lea	Merryman Construction Company	Mike Hall	PO Drawer U, Jal , NM 88252	575-395-3110	12/5/2022	C&D
Lea	GWC Construction, Inc.	Lonnie Goff or Steven Simpson	P.O. Box 249, Lovington, NM 88260	5753968492	6/21/2023	Asbestos,C&D
Lincoln	Greentree Solid Waste Authority	Debra L. Ingle	PO Box 2405, Ruidoso Down, NM 88346	575-378-4697	4/22/2019	C&D,MSW
Lincoln	Manuel R. Hernandez	Manuel R. Hernandez	PO Box 661, Carrizozo, NM 88301	5756482445	7/16/2017	Brush/Green waste,MSW
Lincoln	The Sierra Contracting, Inc. (Hauler)	Gary Van Patton	P.O. Box 935, Alto, NM 88312	5753781091	10/30/2019	C&D,MSW
Lincoln	R. Minnix Construction Inc.(Minnix Construction	Robert L. Minnix	PO Box 270, Alto, NM 88312	5753361623	8/6/2020	Asbestos,C&D,Industrial solid waste,PCS
Lincoln	AC & Company LLC	Johnny Autrey	PO Box 577, Alto, NM 88312	575-336-4069	2/5/2023	PCS,Sludge

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Los Alamos	Navarro Research and Engineering, Inc.	Susana Navarro-Valenti	669 Emory Valley Road, Oak Ridge, TN 37830	865-220-9650	10/18/2023	Asbestos,C&D,Industrial solid waste,MSW,PCS,Sludge,Spill from a chemical,TFCH
Luna	Rocky Mountain Transportation, Inc.	Gerald Baca	P.O. Box 1099, Deming, NM 88031	5755461084	5/14/2020	C&D,Industrial solid waste,MSW,PCS,Sludge
Luna	AT Disposal, Inc.	Fred Anzaldua	P.O. Box 2222, Deming, NM 88031	5055466389	1/22/2023	C&D,MSW,Sludge
Luna	Hamel Waste Disposal	James Hamel	PO Box 2061, Deming, NM 88031	5755468193	6/21/2022	C&D,MSW
McKinley	Checkerboard Refuse Disposal Services	Samuel H. Damon III	P.O. Box 1688, Crownpoint, NM 87313	5057865281	6/7/2023	C&D,MSW
McKinley	Kachina Rental, LLC	Prentice E. "Mike" McConnel	Rt 2, Box 52, Gallup, NM 87301	505-726-1740	6/12/2019	C&D,Industrial solid waste,PCS,Sludge
McKinley	Kachina Rental, LLC	Prentice E. "Mike" McConnel	Rt 2, Box 52, Gallup, NM 87301	505-726-1740	6/12/2019	C&D,Industrial solid waste,PCS,Sludge
McKinley	BS Enterprise, LLC	Mark G. Spitz	501 Patton Drive, Gallup, NM 87301	505-722-7430	10/18/2023	Ash,C&D,MSW
Mora	Jake Lovato Trucking Co.	Anita Lovato	PO Box 190, Holman, NM 87723	575-387-6161	8/1/2022	C&D
Mora	Daniels Ranches, Inc.	Harold Daniels	Box 125 , Wagon Mound, NM 87752	505-447-7100	10/28/2013	MSW
Mora	L. B. Regensberg Construction	Bengie L. Regensberg,	HCR 34 Box 630, Cleveland, NM 87715	5753872700	7/20/2021	C&D,MSW
Mora	AAF Hauling, LLC	Floyd Griego	P.O.Box 415, Guadalupita, NM 87722	505-617-1219	8/13/2019	C&D,Industrial solid waste,MSW,Sludge
Otero	Seven Trent Environmental Services, Inc.	Bradly Bowman	2600 N. Florida, Alamogordo, NM 88310	5754301606	4/4/2018	Sludge
Otero	Choice Waste Collection, Inc.	Robert Matheny, President	P.O. Box 621, Alamogordo, NM 88311	5754911101	6/7/2023	C&D,MSW
Otero	Tool Box, LLC dba Nelson Disposal	Doug Nelson	1600 First St., Alamogordo, NM 88310	5754371468	6/14/2018	C&D,MSW
Otero	Alamo Trucking, LLC	James Neal, Jr.	PO Box 1546, Alamogordo, NM 88311	575-491-5107	1/15/2021	Asbestos,Ash,C&D,Industrial solid waste,MSW,OCD waste, PCS,Sludge,Spill from a chemical,TFCH

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Otero	D-N-J Trucking	James Neal Jr.	P.O. Box 693, La Luz, NM 88337	5754915107	5/5/2016	Asbestos,Ash,C&D,Industrial solid waste,Infectious waste,MSW,OCD waste, PCS,Sludge,TFCH
Otero	Tool Belt Limited Partnership dba Nelson	Leland Nelson	P.O. Box 1965, Alamogordo, NM 88310	5054371468	4/14/2013	C&D
Otero	Casa Del Sol Enterprises, LLC d/b/a Alamo Disposal	Chrystal Marquez, Registered Agent	#6 West Arnold Lane, Alamogordo, NM 88310	575-437-7843	11/17/2020	MSW
Otero	Waste Connections of NM, Inc. dba Southwest	Rex McCourt	P.O. Box 1972, Alamogordo, NM 88310	5754341109	11/19/2019	MSW,Sludge
Otero	Mesa Verde Enterprises, Inc.	Ed Davidson, Safety/Compliance	P.O. Box 907, Alamogordo, NM 88311	5754372995	6/29/2022	C&D
Otero	Billy Goat, LLC	Derek Jones	PO Box 1085, La Luz, NM 88337	575-491-0916	10/18/2023	Asbestos,C&D,MSW,Offal,PCS,Sludge,Spill from a chemical
Out-of-state	Fernando Fernandez	Fernando Fernandez	PO Box 8, Sunland Park, NM 88063	9156302869	11/8/2017	Autoshred residue,Industrial solid waste
Out-of-state	Gamma Waste Systems, LLC	Joe C. Kappil	712 Pasadena Freeway, Pasadena, TX 77506	8773892783	11/14/2017	Infectious waste
Out-of-state	West Texas Abatement Company	Dan Oldham	PO Box 94287, Lubbock, TX 79493	8067449802	11/27/2017	Asbestos
Out-of-state	JL Krahl Contracting, Inc.	John Krahl	438 Thor Court, Littleton, CO 80124	3039153720	11/13/2017	Infectious waste
Out-of-state	Karl Majors LLC	Karl Majors	713 36 1/10 Road, Palisade, CO 81526	970-985-8442	2/8/2023	Infectious waste
Out-of-state	Triad Transport, Inc.	John Watkins, Safety Director	PO Box 818, McAlester, OK 74502	8003641139	2/12/2018	Industrial solid waste,Infectious waste,OCD waste,PCS,Sludge,TFCH
Out-of-state	Mark Dunning Industries, Inc.	James Mark Dunning	100 Racetrack Road, Dothan, AL 36303	3349831506	4/1/2021	C&D,MSW
Out-of-state	Liquid Environmental Solutions	Rene Ybarra	11961 Railroad Drive, El Paso, TX 79934	9154879018	7/26/2021	Sludge
Out-of-state	Clean Harbors Environmental Services, Inc.	Brett Perry	2720 Girard, NE, Albuquerque, NM 87107	781-792-5000	2/6/2022	Asbestos,Ash,Industrial solid waste,Infectious waste,OCD waste, PCS,Sludge,Spill from a chemical,TFCH
Out-of-state	Republic Industrail and Energy Solutions, LLC	Tim Parsons	10613 W. Sam Houston Parkway, N, Suite 300,	832-399-4750	5/22/2022	Asbestos,C&D,Industrial solid waste,OCD waste,PCS,Sludge

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Out-of-state	Interstate Highway Construction, Inc.	Dirk Holtman	PO Box 9172, Albuquerque, NM 87119	505-212-7007	6/19/2020	C&D
Out-of-state	Red J. Environmental Corporation	Brent Solomon	PO Box A , Joseph City, AZ 86032	928-288-3239	7/31/2020	Asbestos,C&D,Industrial solid waste,PCS,Sludge
Out-of-state	Medical Wast Disposal, LLC	Kevin Kelly	600 South 94th Ave., Tolleson, AZ 85353	602-305-8888	8/6/2020	Infectious waste
Out-of-state	Action Resources, Inc.	Douglas R. Carothers	40 County Road 517, Hanceville , AL 35077	256-352-2689	9/10/2020	Industrial solid waste,Infectious waste,OCD waste,PCS,Sludge,Spill from a chemical,TFCH
Out-of-state	Talon LPE Ltd	David Prescott	921 N. Bivins, Amarillo, TX 79107	806-467-0607	9/22/2020	PCS,Spill from a chemical
Out-of-state	Horsley Specialties, Inc.	Mark Torres	PO Box 1277 , Rapid City , SD 57701	605-342-5634	9/25/2020	Asbestos
Out-of-state	Henry Trujillo, Inc.	Herny Trujillo	PO Box 291240, El Paso, TX 79927	915-491-7982	10/19/2020	C&D,MSW,PCS
Out-of-state	N & N Trucking, Inc.	John Norby	11651 Helen Wynn Ct., El Paso , TX 79936	915-740-7765	3/17/2021	C&D,Industrial solid waste,PCS,Sludge
Out-of-state	G Bar M Corporation dba Overley's	Richard Boland	18616 South Lindsay Road, Gilbert, TX 85297	480-821-5455	5/23/2021	PCS,Sludge,Spill from a chemical
Out-of-state	Stagecoach Transportation, LLC	Mark Wilkett, Owner	PO Box 478, Jenks, OK 74037	918-424-5100	9/12/2021	Ash,MSW,OCD waste,Offal,PCS,Sludge,Spill from a chemical,TFCH
Out-of-state	Veolia ES Technical Solutions, LLC	Justin Robert	1 Eden Lane, Flanders, NJ 07836	973-347-7111	9/12/2021	Industrial solid waste,Infectious waste,PCS
Out-of-state	Veolia ES Technical Solutions, LLC	Justin Robert	1 Eden Lane, Flanders, NJ 07836	973-347-7111	9/12/2021	Industrial solid waste,Infectious waste,PCS
Out-of-state	FECC, Inc.	Victor L. San Agustin	3652 Old Winter Garden Road, Orlando, FL 32805	407-296-9995	9/14/2021	OCD waste,Other,PCS,Sludge,Spill from a chemical
Out-of-state	Advanced Environmental Services(Ron Osborn Inc.	Ron Osborn	PO Box 3709, Odessa, TX 79760	432-530-3700	9/15/2021	Asbestos
Out-of-state	Lighthouse Environmental Services	Robert A. Lowe	PO Box 84152, Pearland, TX 77584	713-987-0400	10/23/2022	C&D,OCD waste,PCS
Out-of-state	MedCare Environmental Solutions, Inc.	Nord S. Sorensen	PO Box 21106, Amarillo, TX 79114	806-355-3035	12/5/2022	Infectious waste

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Out-of-state	Waste Management of Colorado, Inc.	John Caviness	258 Stewart St., Durango, CO 81303	970-385-0700	2/27/2023	C&D,MSW,OCD waste
Out-of-state	Durango Trash, LLC	Shane French	PO Box 1909, Bayfield, CO 81122	970-903-3531	3/30/2023	None
Out-of-state	D & H United Fueling Solutions, Inc.	Victor Ayala	PO Box 17969, El Paso, TX 79917	915-859-8150	4/29/2021	PCS,Sludge,Spill from a chemical
Out-of-state	Northstar Environmental Group	Tracy Miller	417 Blythe Ave., Gallatin, TN 37066	615-451-4867	3/4/2024	Sludge
Out-of-state	Sharkline Industrial Services	Ruben Parra	1121 Larry Mahan Dr., Suite D, El Paso, NM	915-838-1188	4/10/2023	MSW,PCS
Out-of-state	Red J Servieces, LLC	Casey Fish	PO Box 52408, Amarillo, TX 79159	806-383-1133	10/10/2022	Asbestos,C&D,Industrial solid waste,OCD waste,Other,PCS,Sludge,Spill from a
Out-of-state	EP Rapid Disposal, LLC	Janet Salgado	PO Box 530, Clint, TX 79836	915-479-9996	10/15/2023	Asbestos,C&D,MSW
Out-of-state	Bin There Dump That El Paso(Alareal Corp. dba)	Tony Alarcon	8417 Beverly Pl., El Paso, TX 79907	915-593-2838	2/8/2023	C&D,MSW
Out-of-state	1 Priority Environmental Services, Inc.	Dan Oldham	208 paris Avenue, Lubbock, TX 79401	817-595-0790	11/9/2022	Asbestos
Out-of-state	Dunagin Transfer Company	Marsha Crow	PO Box 208, Merkel, TX 79536	325-928-5253	2/15/2023	C&D,MSW,OCD waste,PCS
Out-of-state	FALC Enterprises, LLC	Lourdes Castro	3730 Taylor Ave., El Paso, TX 79930	915-562-3347	4/18/2022	C&D,PCS
Out-of-state	SRE Transportation	Brad Vandersee	3230 E. Broadway, C 160, Phoenix, AZ 85044	480-240-9277	10/26/2022	Asbestos
Out-of-state	Sunbelt Industrial Services	Tim Roach	2415 Cullen St., Fort Worth, TX 76107	972-492-5108	12/5/2022	None
Out-of-state	Heist Disposal, Inc.	Charles R. Heist,	P.O. Box 370335, El Paso, TX 79937	9155943610	2/5/2023	C&D,MSW
Out-of-state	Niels Fugal Sons Co. LLC	Derek Blake	P.O. Box 650, Pleasant Grove, UT 87062	8017853152	2/5/2014	C&D
Out-of-state	Rhino Environmental Services, Inc.	Danielle Berardelli	P.O. Box 310, Canutillo, TX 79835	9158864355	10/29/2019	Asbestos,Asbestos,C&D,Industrial solid waste,MSW,OCD waste, PCS,Sludge,TFCH
Out-of-state	Sure-Way Systems, Inc.	Tammy Pool	P.O. Box 899, Deer Lodge, MT 59722	4068462033	2/24/2014	Infectious waste

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Out-of-state	Z & Z Environmental	Narciso Zavala	P.O. Box 1533, Lubbock, TX 79408	8067466488	2/17/2014	Asbestos,C&D
Out-of-state	Demcon Disposal Management, LLC	Belinda Martinez	6966 Market Avenue, El Paso, TX 79915	9155779477	10/19/2022	Asbestos,Ash,C&D,Industrial solid waste,PCS,Sludge
Out-of-state	Parker Ag Services, LLC	Luke Bond	53036 Hwy 71, Limon, CO 80828	7197759870	10/1/2014	Sludge
Out-of-state	Tri State Recycling	Jimmie L. Smith	P.O. Box 421, Texline, TX 79087	8063624828	10/14/2019	C&D,MSW
Out-of-state	Daniels Sharpsmart, Inc.	Dan Daniels	111 West Jackson Blvd. Suite 720, Chicago, IL	312-285-9087	11/25/2018	Infectious waste
Out-of-state	Frank Gomez Trucking	Frank Gomez, Owner	709 Zinn, Canutillo, TX 87935	9158737354	10/6/2013	Autoshred residue
Out-of-state	Rodolfo Silva Jr. dba Silva Trucking	Rodolfo Silva Jr.	P.O. Box 1801, Fabens, TX 79838	9157645308	12/22/2014	Autoshred residue
Out-of-state	L & B Transports, LLC	William Jordan	P.O. Box 74870, Baton Rouge, LA 70874	2253870894	12/31/2019	C&D,Industrial solid waste,MSW
Out-of-state	Navajo Sanitation, Inc.	Benjamin Damon, Jr.	P.O. Box 237, Window Rock, AZ 86515	9288714395	1/23/2020	C&D,MSW
Out-of-state	BioLogics NM, Inc.	Ronald King	595 North Valley Drive, Las Cruces, NM 88005	5756363201	7/23/2015	Infectious waste
Out-of-state	Diamond S. Trucking, Inc.	Brent Solomon	P.O. Box A, Joseph City, AZ 86032	9282883583	7/26/2015	Asbestos,C&D,PCS,Sludge
Out-of-state	Asbestos Removal, Inc.	Scott Edge, Vice President	P.O. Box 13508, Odessa, TX 79766	4323334832	7/20/2021	Asbestos
Out-of-state	Perry Management Corporation of South	Robert LeClear	P.O. Box 17817, Honolulu, HI 96817	8088474493	10/23/2020	C&D,MSW
Out-of-state	D & H Pump Service, Inc. dba D & H Petroleum & Env.	Victor Ayala	P.O. Box 17969, El Paso, TX 79907	9158598150	9/23/2015	PCS,Sludge
Out-of-state	Long Star Environmental Service	Edmundo Salmeron	9821 Staubach, El Paso, TX 79927	9158756762	11/23/2015	Asbestos
Out-of-state	Rojas Trucking	Jose S. Rojas, Owner	P.O. Box 2876, Sunland Park, NM 88063	9155396844	2/1/2015	C&D
Out-of-state	Border Demolition and Environmental, Inc.	Raul R. Solis, President	1004 Diesel Drive, Suite A, El Paso, TX 79907	915-860-8855	8/25/2020	Asbestos,C&D,MSW,PCS

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Out-of-state	El Paso Disposal, LP	Armando Lopes	P.O.Box 20179, El Paso, TX 79998	9157727495	9/17/2019	C&D,MSW,Sludge
Out-of-state	Chemical Transportation, Inc.	Kyle Wilcox	P.O. Box 397, Rillito, AZ 85654	5206242348	10/14/2019	Asbestos,Ash,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill
Out-of-state	R. Gomez Trucking	Pablo Gomez	1612 Jennifer Street, Anthony, TX 79821	9156268665	11/2/2014	Autoshred residue
Out-of-state	Messer Construction Company, Inc.	Johnnie Messer	P.O. Box 2211, Hereford, TX 79045	8063642762	8/18/2013	Industrial solid waste,OCD waste,PCS,Sludge
Out-of-state	MFH Environmental Corporation	Rafael Nickolas, Jr, Vice President	1932 W. Paisano Drive, El Paso, TX 79922	9153516004	6/26/2023	Asbestos
Out-of-state	ESI dba ESS, LLC	Mike Mireles	6044 Gateway East, Ste. 303, El Paso, TX 79905	9157751171	5/18/2017	Asbestos,PCS
Out-of-state	The Royal Flushers	Wesley Bopp	8178 Valley View Drive, El Paso, TX 79907	9158584380	4/27/2017	Other
Out-of-state	Advanced Chemical Transport, Inc.	Polly Wagner, Regional Manager	1210 Elko Drive, Sunnyvale, CA 94089	4085485050	5/22/2022	Asbestos,C&D,Industrial solid waste,Infectious waste,MSW,OCD waste,PCB's,PCS,Sludge,Spill from a chemical,TFCH
Out-of-state	EASI-NM, LLC	George Chacon	5615 Industrial Place, Colorado Springs, CO	7195709676	8/3/2017	Asbestos,C&D
Out-of-state	Red River Service Company	Weldon James Smith, President	4004 E US Highway 290, Dripping Springs, TX	5128580400	8/31/2017	C&D,MSW
Out-of-state	Red River Service Company	Weldon James Smith, President	4004 E US Highway 290, Dripping Springs, TX	5128580400	8/31/2017	C&D,MSW
Out-of-state	Baker Sanitation, Inc.	Loren Workman, President	29499 Highway 160, Cortez, CO 81321	9705651212	9/14/2017	Asbestos
Out-of-state	One Source Industrial Safety and Supply, Inc.	Scott Jordan	16055 Space Center Blvd. # 170, Houston, TX	2819565624	9/26/2017	PCS
Out-of-state	Sam's Plumbing & Environmental Control LLC	Samuel Favela	7239 Dale Road, El Paso, TX 79915	9157780340	10/9/2017	Asbestos
Out-of-state	WM Healthcare Solutions, Inc.	Linda D. Lee, Dr. PH,	1001 Fannin St. Ste 4000, Houston, TX	7132872421	5/5/2021	Infectious waste
Out-of-state	Smith Systems Transportation, Inc.	Sam Smith	P.O. Box 2455, Scottsbluff, NE 69363	8008975517	7/15/2021	Industrial solid waste,Infectious waste,Other

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Out-of-state	MP Environmental Services, Inc.	Joseph Anderson	3045 S 51st Ave., Phoenix, AZ 80504	6022786299	7/22/2021	Asbestos,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill from a
Out-of-state	BioCycle, Inc.	Mason Bryant	P.O. Box 20927, Amarillo, TX 79114	972-786-7060	1/18/2022	Infectious waste
Out-of-state	Wrangler Pumping, Inc. dba Garbage Gators	Willis Malone, Owner	P.O. Box 32108, Amarillo, TX 79120	8066227777	4/26/2022	C&D,MSW
Out-of-state	Empire Environmental Group, LLC	Martin Robledo	11405 Molly MAC Dr., Balch Springs, TX 75180	2143273653	3/8/2017	Asbestos,C&D
Out-of-state	Ventrex Environmental Services, LLC	John-David Rodriguez, Sr.	5047 David Strickland Suite 101, Fort Worth,	6822244814	8/2/2018	Infectious waste
Out-of-state	Aftermath Services, LLC	Patricia Heinle	75 Executive Dr., #200, Aurora, IL 60504	630-551-0735	10/21/2018	Infectious waste
Out-of-state	Global Alternative Fuels, LLC	Jed Smith	3500 Doniphan Dr., Suite A, El Paso, TX	915-791-8720	9/5/2019	PCS
Out-of-state	FCC Environmental, LLC	Michael Ward	523 N. Sam Houston Pardway, E., Ste 400,	432-550-2533	9/19/2019	Industrial solid waste,PCS
Out-of-state	Allgayer Inc.	Fernando Espinosa	PO Box 611, El Campo, TX 77437	979-543-7041	11/5/2019	OCD waste,PCS
Out-of-state	Matador Well Services, LLC	Katie Richardson	PO Box 51708, Midland, TX 79710	432-250-3600	2/13/2020	Sludge
Out-of-state	Bellio Environmental Services & Transportation,	Gary Moser	777 W. 62nd Avenue, Denver, CO 80216	303-426-6929	5/13/2020	Asbestos,PCS
Out-of-state	Rivas Environmental Consultants, Inc.	Charlie Rivas, Jr.	PO Box 19793, Amarillo, TX 79114	806-679-6951	1/8/2019	PCS,Spill from a chemical
Out-of-state	NJ Trucking	Julio Cesar Luera	261 Easyway Sp #1, El Paso , TX 79932	915-831-0405	2/6/2019	Other - auto fluff
Out-of-state	Mediwaste Disposal, LLC	Anthony Lich	PO Box 3516, El Paso, TX 79923	915-566-6999	2/26/2024	Infectious waste
Out-of-state	Earth Services & Abatement, Inc.	Kory Mitchell	7600 E. 50th Ave., Commerce City, CO	303-991-1280	2/14/2019	Asbestos
Out-of-state	Smartt Move, LLC	Chris Sestric	PO Box 498, Sweetwater, TX 79556	325-236-1100	3/10/2019	Asbestos,C&D,Industrial solid waste,OCD waste,PCS,Sludge
Out-of-state	Smartt Move, LLC	Chris Sestric	PO Box 498, Sweetwater, TX 79556	325-236-1100	3/10/2019	Asbestos,C&D,Industrial solid waste,OCD waste,PCS,Sludge

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Out-of-state	Oncore Technology, LLC	Otley Smith	2917 Calle Grande, NW, Albuquerque, NM 87104	972-786-7060	3/13/2019	Infectious waste
Out-of-state	Alliance Recovery, LLC	Curtis Estill	PO BOX 64832, Lubbock, TX 79464	800-794-4408	4/28/2019	OCD waste,Other,PCS,Sludge
Out-of-state	Arguijo Oilfield Services, Inc.	Dot Evans	2800 West 42nd Street, Odessa , TX 79764	432-550-5650	5/19/2019	MSW
Out-of-state	Reese Equipment Company, LLC	Kevin Reese	16400 N Hwy 133, Dixon, MO 65459	573-774-0485	5/30/2019	Asbestos,C&D
Out-of-state	Bioshield Medical Waste Solutions	Denise Stoute	PO Box 784, San Angelo, TX 86902	3257188723	11/5/2017	Infectious waste
Quay	All-Rite Towing & Repair, Inc.	Linda Unruh	P.O. Box 1024, Tucumcari, NM 88401	5754612316	7/20/2021	C&D,MSW
Quay	Terry's Service Center Inc.(Hauler)	Terry Marlin, President	P.O. Box 247, San Jon, NM 88434	5755762570	7/26/2021	C&D,MSW
Quay	Jacks Truck Repair, Inc.	Jack R. Goen, President	P.O. Box 1111, Tucumcari, NM 88401	5754614601	10/18/2023	C&D,MSW
Quay	Pacheco Construction & Trucking, Inc.	Joshua Pacheco	PO Box 1405, Tucumcari, NM 88401	5754614811	11/16/2017	C&D,MSW,OCD waste,PCS
Quay	SS Kent Waste Management	Russell Bruhn, Owner	P.O. Box 445, Logan, NM 88426	5755765368	3/13/2017	C&D,MSW
Quay	Versatile Construction Company	F. J. Smith, Jr., Owner	P.O. Box 336, Logan, NM 88426	5754872259	7/16/2023	Asbestos,PCS,Sludge
Quay	Pacheco Construction & Trucking, Inc.	Joshua Pacheco	PO Box 1405, Tucumcari, NM 88401	5754614811	11/16/2017	C&D,MSW,OCD waste,PCS
Quay	RDM Waste, Inc.	Mark Gorman	P.O. Box 272, Logan, NM 88426	5054872392	4/15/2024	C&D,MSW,PCS
Rio Arriba	Trujillo Trucking (Elirray B. Trujillo dba)	Elirray B. Trujillo, Owner	P.O. Box 5013, Fairview, NM 87533	5059294924	8/29/2021	C&D,MSW
Rio Arriba	Russom Trucking Inc.	John I. Russom	PO BOX 253, Chama, NM 87520	575-756-1853	4/28/2019	C&D
Rio Arriba	Chris Martinez d/b/a Martinez Trucking and	Chris Martinez	934 East Pueblo Drive, Espanola, NM 87532	5054703499	5/1/2018	C&D
Rio Arriba	J-n-L Trucking	Jerry Archuleta	21 Arroyo Alamo West, Espanola, NM 87532	505-469-1182	6/25/2018	Asbestos,MSW,PCS,Sludge

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Rio Arriba	Bobby Garcia Trucking	Bobby Garcia	P.O. Box 4438, Fairview, NM 87533	505-852-2569	10/18/2023	C&D,MSW,PCS,Sludge
Rio Arriba	Salazar Trucking Company, Inc.	Jacobo A. Salazar	P.O. Box 261, Espanola, NM 87532	5057536892	5/26/2021	C&D,MSW,Sludge
Roosevelt	LGT Construction, LLC	Michael Trujillo	1966 S. Roosevelt Road 8 , Portales, NM 88130	575-715-2413	3/22/2020	Ash,C&D,MSW,OCD waste,Offal,PCS,Sludge
Roosevelt	Nixon Rolloff	Keith Nixon	154 NM 467, Portales, NM 88130	575-749-1490	2/3/2020	C&D,MSW
Roosevelt	SOS Managed Waste, Inc.	Scott Pasewark	P.O. Box 659, Portales, NM 88130	5753568720	9/23/2014	C&D,MSW
Roosevelt	By-Faith Trucking, Inc.	James Robins, President	126 Highlands, Portales, NM 88130	5752267777	2/19/2018	C&D,MSW
Roosevelt	Valley Waste Removal	Brian Victor	P.O. Box 2007, Clovis, NM 88102	5756830386	8/10/2014	C&D,MSW
San Juan	Inland Corporation	Bob Simkins	409 E. Broadway, Farmington, NM 87413	505-632-2368	7/23/2013	C&D,Industrial solid waste,MSW,OCD waste,PCS
San Juan	Young Environmental Services, Inc. dba	Morris D. Young, President	5796 US Highway 64, Farmington, NM 87401	5056320615	10/6/2019	Asbestos,OCD waste,PCS,Sludge,Spill from a chemical
San Juan	Contract Environmental Services, Inc.	Yoshi Okano	925 South Broadway, Suite 251, Cortez, CO	970-565-1198	9/22/2020	Asbestos,C&D
San Juan	Serrano's Inc.	Georgia Serrano	P.O. Box 490, Flora Vista, NM 87415	5056329494	6/26/2020	C&D,MSW,OCD waste,Other,PCS,Sludge,Spill from a chemical
San Juan	M & R Trucking, Inc.	Butch Mathews	P.O. Box 600, Farmington, NM 87499	5053345541	4/4/2023	OCD waste,PCS
San Juan	Edwina Valdez dba EV Trucking	Ralph Cruz	P.O. Box 5758, Farmington, NM 87499	5056340316	12/15/2013	PCS,Sludge
San Juan	Del Prado	Ralph Prado, Owner	6784 US Highway 64, Bloomfield, NM 87413	5058603782	3/17/2021	PCS,Sludge
San Juan	Iina ba, Inc.	Duane Aspaas	PO Box 2606, Farmington , NM 87499	505-327-1072	12/16/2019	Asbestos,C&D,Industrial solid waste,MSW,PCS,Sludge
San Juan	CBH Trucking, Inc.	Bob Huish	5616 US Hwy 64, Farmington, NM 87401	505-402-3388	2/10/2019	PCS
San Juan	Animas Environmental Services, LLC	Ross Kennemer	624 E. Comanche St., Farmington, NM 87401	5055642281	7/2/2023	Industrial solid waste,OCD waste,PCS,Spill from a chemical

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San Juan	Western Refining Southwest, Inc.	Bruce Cauthen	111 CR 4990, Bloomfield, NM 87413	5056324035	11/18/2019	C&D,MSW,PCS
San Juan	Transit Waste LLC	William Rose, Gen Mgr	PO Box 215, Bloomfield, NM 87413	505-634-2510	1/8/2024	C&D,MSW,Sludge
San Miguel	Olivas Trucking Co.	Willie Olivas	PO Box 504, Mora, NM 87732	505-350-9749	4/8/2021	Asbestos,C&D,MSW,OCD waste,PCS,Sludge,Spill from a chemical
San Miguel	Pecos Waste Management(SyVil	Jon Syferd	PO Box 1155, Pecos, NM 87552	505-795-2944	3/1/2023	C&D,MSW
San Miguel	Green Arrow Septic Pumping	Gerald Encinias	PO Box 1053, Pecos, NM 87552	505-490-1253	5/13/2021	C&D
San Miguel	Crespin's Paving & Maintenance Co.	Carlos A. Crespin, Owner	900 W. Valencia Street, Box 2, Las Vegas, NM	5054259572	4/12/2023	Ash,C&D,MSW,PCS,Sludge
San Miguel	Lawrence Bachicha, Owner	Lawrence Bachicha, Owner	P.O. Box 2783, Las Vegas, NM 87701	5057182332	1/9/2017	C&D,MSW
San Miguel	Ortiz & Son	Alexander Ortiz, Owner	P.O. Box 152, Rowe, NM 87562	5054901510	6/8/2016	C&D,MSW
San Miguel	Extreme Green Refuse, LLC	Ashley F. Ulibarri, Owner	L81 Airport Road, Box 6, Las Vegas, NM 87701	5056520457	7/25/2021	C&D,MSW
San Miguel	Rocky Road Gravel Products	Oren Mathews, Owner	P.O. Box 1405, Las Vegas, NM 87701	5054256051	9/30/2021	PCS
Sandoval	Desert Ridge, Inc.	Wayne Lewis	9124 Highway 4, Jemez Pueblo, NM 87024	5758293594	3/30/2021	C&D,MSW
Sandoval	Dave's Bobcat Service	David C. Urban	082 Acosta Lane, Bernalillo, NM 87004	5052641062	10/19/2017	MSW
Sandoval	Ernest R. Chavez Trucking	Ernest R. Chavez	5800 Osuna Road, NE, Apt 5, Albuquerque, NM	5052202181	3/17/2016	C&D,MSW,PCS,Sludge
Sandoval	Blueline Construction, Inc.	Brian K. McClintock	#26 Storyteller Court, Sandia Park, NM 87047	5052861789	8/12/2021	C&D
Sandoval	J N J Utilities, LLC	Jacob Maes	P.O. Box 361, Placitas, NM 87043	5058673017	11/17/2019	Sludge
Sandoval	Chris Tena dba C-J-T Trucking	Chris Tena	1613 Debra Place, NE, Rio Rancho, NM 87144	5054632277	10/13/2014	C&D,MSW
Sandoval	Ted Chavez Trucking	Ted Chavez	3911 Torrey Pines, Rio Rancho, NM 87124	5052632278	11/7/2018	C&D,MSW,PCS

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Sandoval	Placitas Yard Works(Guillermo Arriola	Guillermo Arriola	P.O. Box 468, Placitas, NM 87043	5052639153	2/16/2014	C&D,MSW
Sandoval	Waste Management of New Mexico, Inc.	Alberto Guardado	2300 Grande Blvd. SE, Rio Rancho, NM 87124	5058916595	4/3/2019	Asbestos,Ash,C&D,Industrial solid waste,MSW,OCD waste, Offal,PCS,Sludge,Spill from a chemical, TFCH
Sandoval	Pioneer Sand of NM / R. Montoya Sand & Gravel	Debi Montoya	964 Charles Drive NE, Rio Rancho, NM 87144	5059207351	11/5/2014	C&D,MSW
Sandoval	MHXcavating, Inc.	Mark S. Hamilton	637 Walden Road, Corrales, NM 87048	5058974328	7/26/2021	C&D,MSW
Sandoval	Will Jackson's Grading	William B. Jackson	202 Pleasant View Drive, Bernalillo, NM 87004	5056815038	4/8/2014	C&D,MSW
Sandoval	Wiggins Trucking	Julian Wiggins Jr.	P.O. Box 742, Bernalillo, NM 87004	5058675464	2/13/2014	C&D,MSW
Sandoval	CH2MHILL/OMI	Eddie De Lara, Jr.	4300 Sara Road, Rio Rancho, NM 87124	505-896-8811	6/7/2023	Sludge
Sandoval	Urban Trucking & Excavation, LLC	Martin Urban	40 Los Arribenos, Pena Blanca, NM 87041	505-465-2837	4/22/2021	Asbestos,Ash,C&D,Industrial solid waste,MSW,PCS
Sandoval	Harold's Grading & Trucking, Inc.	Antoinette Dominguez, Local	P.O. Box 54, Bernalillo, NM 87144	5058672753	6/14/2018	C&D,MSW
Sandoval	Operations Management International, Inc. (OMI)	Eddie De Lara	4300 Sara Road, Rio Rancho, NM 87124	5058968811	6/6/2018	Sludge
Sandoval	Sotelo Hauling	Jesus M. Sotelo	1002 27th St., SW, Rio Rancho, NM 87124	505-681-7811	12/24/2023	C&D,MSW
Sandoval	Baldonado Trucking	Gilbert Baldonado	PO Box 822, Algodones, NM 87001	5054013747	7/16/2023	C&D,MSW
Sandoval	Road Runner Waste Services, Inc.	Benjamin Lee Dante, Vice	P.O. Box 5550, Bernalillo, NM 87004	5058679000	2/8/2022	C&D,MSW
Santa Fe	Ibarra's Trash Services	Edelmira Juarez	5067 Agua Fria Park Road, Santa Fe, NM	5059203264	7/9/2020	C&D,MSW
Santa Fe	Green Production Resource, LLC	Holly Roach	P.O. Box 32566, Santa Fe, NM 87594	5055547133	5/23/2016	MSW
Santa Fe	Ortega and Cruz	Rigoberto Ortega D.	8 Sunset, Trailer E, Santa Fe, NM 87508	5054679613	2/20/2017	MSW

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Santa Fe	Capital Scrap Metals, Inc.	Brian Witt, Vice President	1162 Cooks Lane, Santa Fe, NM 87507	505-471-0740	10/20/2021	C&D,MSW
Santa Fe	Joe Nestor Coriz	Joe Nestor Coriz	637 W. San Francisco St., Santa Fe, NM 87501		1/2/2014	Sludge
Santa Fe	A & M Bobcat Rental, llc	John M. Ojinaga	55 Canada del Rancho, Suite D, Santa Fe, NM	5054730402	2/4/2014	C&D
Santa Fe	Gallegos Trucking	Fidel Gallegos, President	18 A-B Reata Road, Santa Fe, NM 87507	5054714748	12/18/2017	C&D,MSW
Santa Fe	Santa Fe Waste Services, LLC	Vicki Montano Torres	3956 San Felipe Road, Santa Fe, NM 87507	5054717440	8/31/2022	C&D,MSW
Santa Fe	L & L Waste Services, LLC	Frank Romero	3951 Agua Fria, Santa Fe, NM 87507	5054711372	5/5/2014	C&D,MSW
Santa Fe	Exceptional Junk Removal LLC	Carols D Garcia-Martinez	4363 San Benito, Suite C, Santa Fe, NM 87507	505-595-0888	1/18/2023	MSW
Santa Fe	W J Larranaga Trucking LLC	William J. Larranaga	18 A Camino Loma, Santa Fe, NM 87507	505-470-4630	2/14/2024	C&D
Santa Fe	USA Scrap Tires LLC	Jose Rogriguez	4033 Cerrilos Road, Santa Fe, NM 87507	505-699-5879	12/1/2021	MSW
Santa Fe	Micrae Trucking, LLC	Krislynn Tabaka	57 Moriarty Road, Edgewwood, NM 87015	505-934-3249	11/17/2020	Asbestos,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill from a chemical
Santa Fe	High Mesa Environmental, LLC	Ted R. Martinez	33 A Arroyo Cuyamungue Road,	5054550795	5/4/2014	C&D,MSW
Santa Fe	Triple T Excavating, LLC	Tim Trimborn	2389 Del Ross Lane, Santa Fe, NM 87507	505-473-5856	12/6/2023	C&D,MSW
Santa Fe	Enviroworks, LLC	Nugget Sean Grossetete	PO Box 340, Edgewood, NM 87015	505-286-4891	8/1/2022	Asbestos,C&D,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill
Santa Fe	Edgewood (Town of)	Mike Butler	PO Box 3610, Edgewood, NM 87015	505-281-0595	3/1/2024	Sludge
Santa Fe	Rios Excavation & Wrecking	Mary Smith	PO Box 24034, Santa Fe, NM 87502	505-471-7772	2/5/2014	C&D
Sierra	Bartoo Sand & Gravel, Inc.	Howard Bartoo	PO Box 3769, T or C, NM 87901	5758947181	5/7/2017	MSW,Sludge
Socorro	B-B-R Disposal	Bert Padilla	1203 Santa Fe Lane, Socorro, NM 87801	575-517-6489	9/15/2020	MSW

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Socorro	Triple T Disposal LLC	Jim F Taylor	PO 337, San Antonio, NM 87832	575-517-6138	1/26/2020	C&D,MSW
Taos	Mountain & Mesa Construction	Charles Meyers	PO Box 85, Tres Piedras, NM 87577	5757580335	8/2/2023	C&D
Taos	Angel Fire (Village of)	Amos Torres	PO Box 610, Angel Fire, NM 87710	575-377-1674	5/10/2023	Sludge
Torrance	Jackson Trucking	Jack Zamora, Owner	47 Holiday Drive, Los Lunas, NM 87031	5057208360	6/17/2013	C&D,MSW
Torrance	Marquez Transportation	Thomas R. Marquez, Owner	P.O. Box 891, Moriarty, NM 87035	5058325147	9/24/2013	MSW
Torrance	Ramirez Trucking, LLC	Manuel A. Ramirez	PO Box 742, Estancia, NM 87016	505-259-8298	8/25/2020	Asbestos,C&D,MSW,OCD waste, PCS,Sludge,Spill from a chemical
Torrance	R & C Trucking, LLC	Raymond Encinias	40 A Juanito Avenue, Moriarty, NM 87035	505-832-4937	9/16/2020	Asbestos,C&D,Industrial solid waste,MSW,OCD waste,PCS,Sludge,Spill
Torrance	Chavez & Sons Trucking, Inc.	Tony Chavez	P.O. Box 234, Moriarty, NM 87035	5058329511	10/29/2018	Asbestos,C&D,MSW,PCS,Sludge
Torrance	Gallegos Transportation	Michael Gallegos, Owner	9 Chico Lane, Moriarty, NM 87035	5756406878	11/4/2014	C&D,MSW
Torrance	F & T Barela Trucking	Felix Barela	21 Barelas Road, Tajique, NM 87016	5053842412	7/22/2021	Asbestos,MSW,PCS,Sludge
Valencia	Joseph L. Salas	Joseph L. Salas	19568 Hwy 314, Belen, NM 87002	5057200766	8/10/2014	C&D,MSW
Valencia	Sanchez Demolition Inc.	Joshua A. Sanchez	P.O. Box 721, Bosque, NM 87006	5056202237	1/14/2020	C&D,MSW,PCS
Valencia	Valley Disposal Services	Randy Sanchez	618 Dalies Avenue, Belen, NM 87002	5058646693	9/25/2018	C&D,MSW
Valencia	Advanced Environmental Solutions, Inc.	Robert Chavez	2318 Roldan Dr., Belen, NM 87002	5058611700	10/19/2020	Asbestos,Brush/Green waste,C&D,Industrial solid
Valencia	AC Disposal Services, Inc.	Charles Montoya	951 Curfman Road, SW, Los Lunas, NM 87031	5056819409	10/27/2019	Asbestos,C&D,MSW,PCS,Sludge
Valencia	AC Disposal Services, Inc.	Charles Montoya	951 Curfman Road, SW, Los Lunas, NM 87031	5056819409	10/27/2019	Asbestos,C&D,MSW,PCS,Sludge
Valencia	Universal Waste Systems of New Mexico, LLC	Mark Blackburn	PO Box 3038, Whittier, CA 90605	909-959-5547	12/8/2020	C&D,MSW

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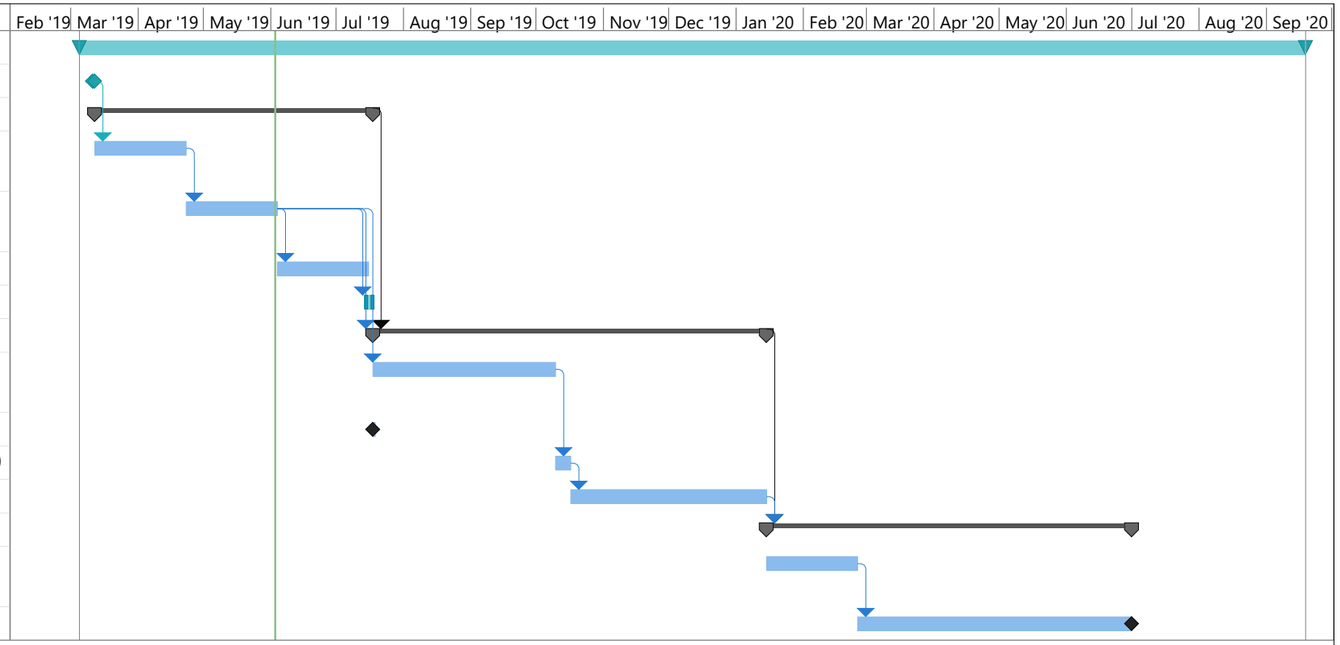
Valencia	HR Construction, Inc.	Horacio Romero	P.O. Box 463, Tome, NM 87060	5059071827	8/25/2013	C&D,Industrial solid waste,MSW,OCD waste,PCS,Residue from Chemical
Valencia	HR Construction, Inc.	Horacio Romero	P.O. Box 463, Tome, NM 87060	5059071827	8/25/2013	C&D,Industrial solid waste,MSW,OCD waste,PCS,Residue from Chemical
Valencia	Reliable Waste Disposal, Inc.	Charles Apodaca	3509 Hwy 47, Los Lunas, NM 87031	5058651195	8/31/2016	C&D,MSW
Valencia	Hawks Dirty Work	Johnny Hawks	20 A Los Chavez Loop, Belen, NM 87002	505-350-8038	7/29/2021	C&D
Valencia	KC Hauling	Erika V. Candelaria, Owner	68 San Diego Loop, Los Lunas, NM 87031	5052052576	2/12/2018	C&D,MSW,PCS
Valencia	Gonzales Transport	Ellias Gonzales	PO Box 711, Belen, NM 87002	575-538-1061	12/7/2020	C&D,MSW,PCS,Sludge
Valencia	Perea Trucking	David Perea	01 Palomas Road, Los Lunas, nm 87031	505-379-7659	11/19/2014	C&D,MSW

ATTACHMENT 11

PROJECT SCHEDULE GANTT CHART

ID	Task Mode	Task Name	Duration	Start	Finish
1		**Pre 1965 Landfill Excavation Project**	404 days	Tue 3/5/19	Fri 9/18/20
2		**NTP**	1 day	Mon 3/11/19	Mon 3/11/19
3		**Pre 1965 Landfill Waste Excavation Plan**	**92 days**	**Tue 3/12/19**	**Wed 7/17/19**
4		Task 1 - Meeting with NMED Bureau Chief	30 days	Tue 3/12/19	Mon 4/22/19
5		Task 2 - Incorporate NMED Comments into WEP, Resubmit	30 days	Tue 4/23/19	Mon 6/3/19
6		Task 3 - NMED Review Final WEP	30 days	Tue 6/4/19	Mon 7/15/19
7		Prepare and Conduct Public Meeting	3 days	Mon 7/15/19	Wed 7/17/19
8		**Pre 1965 Landfill Field Effort**	**129 days**	**Thu 7/18/19**	**Tue 1/14/20**
9		Task 4 - Contracts (onsite, waste hauler, equipment)	60 days	Thu 7/18/19	Wed 10/9/19
10		Task 5 - Flagging Waste Perimeter	1 day	Thu 7/18/19	Thu 7/18/19
11		Task 6 - Setup and Stagging	5 days	Thu 10/10/19	Wed 10/16/19
12		Task 7 - Excavation (Estimated)	64 days	Thu 10/17/19	Tue 1/14/20
13		**Pre 1965 Landfill Excavation Results**	**120 days**	**Wed 1/15/20**	**Tue 6/30/20**
14		Task 8 - Prepare Final Document of Excavation Actions	30 days	Wed 1/15/20	Tue 2/25/20
15		Task 9 - NMED Acceptance Ltr	90 days	Wed 2/26/20	Tue 6/30/20



Project: Pre 1965 Foothills Land
Date: Mon 6/3/19

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	