STOCKTON CLASS IIIB LANDFILL
PERMIT APPLICATION
DRAFT FINAL

Prepared by:

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December 2009

Utah Division of Solid and Hazardous Waste

Solid Waste Management Program

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APPLICATION FOR A PERMIT TO OPERATE A CLASS III LANDFILL

Please read the instructions that are found in the document, INSTRUCTIONS FOR APPLICATION FOR A PERMIT TO OPERATE A CLASS III LANDFILL. This application form shall be used for all Class III solid waste disposal facility permits and modifications. Part I, GENERAL INFORMATION, must accompany a permit application. Part II, APPLICATION CHECKLIST, is provided to assist applicants and, if included with the application, will assist review. Part II is provided to assist in preparation and review of a permit application, it is not rule. The text of the rule governs all permit application contents and should be consulted when questions arise.

Please note the version date of this form found on the lower right of the page; if you have received this form more than six months after this date it is recommended you contact our office at (801) 538-6170 to determine if this form is still current. When completed, please return this form and support documents, forms, drawings, and maps to:

Dennis R. Downs, Director
Division of Solid and Hazardous Waste
Utah Department of Environmental Quality
PO Box 144880
Salt Lake City, Utah 84114-4880

(Note: When the application is determined to be complete, submittal of two copies of the complete application will be required.)

Utah Class III Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

I. Landfill Type	☐ Class IIIa ☒ Class IIIb	**II. Application Type**	☒ New Application ☐ Renewal Application	☐ Facility Expansion ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number _____

III. Facility Name and Location

Legal Name of Facility Stockton Class IIIb Landfill

Site Address (street or directions to site) 0.75 South of Stockton; turn left off of Highway 36			County Tooele
City Stockton	State Utah	Zip Code 84071	Telephone (435) 882-3877
Township 4 S	Range 5 W	Section(s) 26	Quarter/Quarter Section SW	Quarter Section NE
Main Gate Latitude 40 degrees 26 minutes 40 seconds		Longitude 112 degrees 22 minutes 24 seconds	

IV. Facility Owner(s) Information

Legal Name of Facility Owner: Town of Stockton

Address (mailing) 18 North Johnson Street; PO Box 240

City Stockton	State: Utah	Zip Code: 84071	Telephone : (435) 882-3877

V. Facility Operator(s) Information

Legal Name of Facility Operator : Town of Stockton

Address (mailing) 18 North Johnson Street; PO Box 240

City Stockton	State Utah	Zip Code 84071	Telephone (435) 882-3877

VI. Property Owner(s) Information

Legal Name of Property Owner: Town of Stockton

Address (mailing) 18 North Johnson Street; PO Box 240

City: Stockton	State: Utah	Zip Code: 84071	Telephone : (435) 882-3877

VII. Contact Information

Owner Contact : Mark Whitney		Title: Mayor	
Address (mailing) 18 North Johnson Street; PO Box 240			
City : Stockton	State Utah	Zip Code 84071	Telephone : (435) 882-3877
Email Address mwhit224@yahoo.com		Alternative Telephone (cell or other)	(435) 224-3327
Operator Contact SAME		Title	
Address (mailing)			
City	State	Zip Code	Telephone
Email Address		Alternative Telephone (cell or other)	
Property Owner Contact SAME		Title	
Address (mailing)			
City	State	Zip Code	Telephone
Email Address		Alternative Telephone (cell or other)	

Utah Class III Landfill Permit Application Form

Part I General Information (Continued)

VIII. Waste Types (check all that apply)

☐ All types of non-hazardous industrial waste generated by the facility **OR** the following specific waste types

Waste Type	Combined Disposal Unit	Monofill Unit
☐ Construction & Demolition	☐	☐
☐ Industrial	☐	☐
☐ Incinerator Ash	☐	☐
☐ Animals	☐	☐
☐ Asbestos	☐	☐
☒ Other soil with lead	☐	☒

Note: All waste types must be generated by the industry which owns the facility

IX. Facility Area

Facility Area	8.88	acres
Disposal Area	0.48	acres
Design Capacity		
Years		
Cubic Yards	5,000	
Tons		

X. Fee and Application Documents

Indicate Documents Attached To This Application ☐ Application Fee: Amount $

☒ Facility Map or Maps	☒ Facility Legal Description	☒ Plan of Operation	☒ Waste Description
☐ Ground Water Report	☒ Closure Design	☒ Cost Estimates	☒ Financial Assurance

I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.

Signature of Authorized Owner Representative Mark Whitney Name typed or printed	Title Mayor	Date 12-10-09
	Address Stockton City 18 North Johnson Street PO Box 240 Stockton, UT 84071	
Signature of Authorized Land Owner Representative (if applicable) same Name typed or printed	Title	Date
	Address	
Signature of Authorized Operator Representative (if applicable) same Name typed or printed	Title	Date
	Address	

Utah Class III Landfill Permit Application Checklist

Important Note: The following checklist is for the permit application and addresses only the requirements of the Division of Solid and Hazardous Waste. Other federal, state, or local agencies may have requirements that the facility must meet. The applicant is responsible to be informed of, and meet, any applicable requirements. Examples of these requirements may include obtaining a conditional use permit, a business license, or a storm water permit. The applicant is reminded that obtaining a permit under the *Solid Waste Permitting and Management Rules* does not exempt the facility from these other requirements.

An application for a permit to construct and operate a landfill is documentation that the landfill will be located, designed, constructed, operated, and closed in compliance with the requirements of Rules R315-304 of the *Utah Solid Waste Permitting and Management Rules* and the *Utah Solid and Hazardous Waste Act* (UCA 19-6-101 through 123). The application should be written to be understandable by regulatory agencies, landfill operators, and the general public. The application should also be written so that the landfill operator, after reading it, will be able to operate the landfill according to the requirements with a minimum of additional training.

Copies of the *Solid Waste Permitting and Management Rules*, the *Utah Solid and Hazardous Waste Act*, along with many other useful guidance documents can be obtained by contacting the Division of Solid and Hazardous Waste at 801-538-6170. Most of these documents are available on the Division's web page at www.hazardouswaste.utah.gov. Guidance documents can be found at the solid waste section portion of the web page.

When the application is determined to be complete, the original complete application and one copy of the complete application are required along with an electronic copy.

Part II **Application Checklist**

I. **Facility General Information**	
Description of Item	Location In Document
Ia. General Information For - All Facilities	
Completed Part I General information	Section 1.0 pg 1
General description of the facility (R315-310-3(1)(b))	Section 1.1 pg 1
Legal description of property (R315-310-3(1)(c))	Section 1.2 pg 2
Proof of ownership, lease agreement, or other mechanism (R315-310-3(1)(c))	Section 1.2 pg 2; Appendix A
A demonstration that the landfill is not a commercial facility	Section 1.2 pg 2
Waste type and anticipated daily volume (R315-310-3(1)(d))	Section 1.3 pg 2
Intended schedule of construction (R315-302-2(2)(a))	Section 1.4 pg 2
Ib. General Information - New Or Laterally Expanding Class III Landfills	
Documentation that the facility has meet the historical survey requirement of R315-302-1(2)(f) (R315-305-4(1)(b) or R315-305-4(2)(a)(iv))	Section 1.5 pg 3; Appendix B
Name and address of all property owners within 1000 feet of the facility boundary (R315-310-3(2)(i))	Section 1.6 pg 3; Table 1
Documentation that a notice of intent to apply for a permit has been sent to all property owners listed above (R315-310-3(2)(ii))	Section 1.6 pg 3; Appendix C
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	Section 1.7 pg 4

***I.* Facility General Information**	
Description of Item	Location In Document
Ic. Location Standards - New Class IIIa Landfills (R315-304-4(1))	
Geology	N/A
Geologic maps showing significant geologic features, faults, and unstable areas	N/A
Maps showing site soils	N/A
Surface water	N/A
Magnitude of 24 hour 25 year and 100 year storm events	N/A
Average annual rainfall	N/A
Maximum elevation of flood waters proximate to the facility	N/A
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	N/A
Wetlands	N/A
Ground water	N/A
Historic Preservation Survey	N/A
Id. Additional Location Standards - New Class IIIa Landfills Not On Waste Generation Site	
Land use compatibility (R315-304-4(1)(a))	N/A
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	N/A
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	N/A
List of airports within five miles of facility and distance to each	N/A
Ie. Location Standards - New Class IIIb Landfills	
Floodplains as specified in R315-302-1(2)(c)(ii) (R315-304-4(2)(a)(i))	Section 1.8 pg 4
Wetlands as specified in R35-302-1(2)(d) (R315-304-4(2)(a)(ii))	Section 1.8 pg 4
The landfill is located so that the lowest level of waste is at least ten feet above the historical high level of ground water (R315-304-4(2)(a)(iii))	Section 1.8 pg 4
Historical Preservation Survey (R315-304-4(2)(a)(iv))	Section 1.5 pg 3; Appendix B
If. Plan of Operations - All Class III Landfills (R315-310-3(1)(e) and R315-302-2(2))	
Description of on-site waste handling procedures and an example of the form that will be used to record the weights or volumes of waste received (R315-302-2(2)(b) And R315-310-3(1)(f))	Section 2.1 pg 4; Appendix D
Schedule for conducting inspections and monitoring, and examples of the forms that will be used to record the results of the inspections and monitoring (R315-302-2(2)(c), R315-302-2(5)(a), and R315-310-3(1)(g))	Section 2.2 pg 6; Appendix D

***I.* Facility General Information**	
Description of Item	Location In Document
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Section 2.3 pg 6
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Section 2.4 pg 6
Plan for letter control and collection (R315-302-2(2)(h))	Section 2.5 pg 6
Procedures for excluding the receipt of prohibited hazardous or PCB containing wastes (R315-302-2(2)(j))	Section 2.6 pg 7
Procedures for controlling disease vectors (R315-302-2(2)(k))	Section 2.7 pg 7
A plan for alternative waste handling (R315-302-2(2)(l))	Section 2.8 pg 7
A general training and safety plan for site operations (R315-302-2(2)(o))	Section 2.9 pg 7; Appendix E
Any recycling programs planned at the facility (R315-303-4(6))	Section 2.10 pg 7
Any other site specific information pertaining to the plan of operation required by the Executive Secretary (R315-302-2(2)(p))	
Ig. Ground Water Monitoring - Class IIIa landfills	
Ground Water Monitoring Plan (R315-304-5(4)(a)	N/A
***II* Facility Technical Information**	
IIa. Maps - All Class III Landfills	
Topographic map drawn to the required scale with contours showing the boundaries of the landfill unit, ground water monitoring well locations, gas monitoring points, and the borrow and fill areas (R315-310-4(2)(a)(i))	Section 3.1 pg 8; Figure 7
Most recent U.S. Geological Survey topographic map, 7-1/2 minute series, showing the waste facility boundary; the property boundary; surface drainage channels; any existing utilities and structures within one-fourth mile of the site; and the direction of the prevailing winds (R315-310-4(2)(a)(ii))	Section 3.2 pg 8; Figure 8
IIb. Geohydrological Assessment - Class IIIa Landfills (R315-310-4(2)(b))	
Local and regional geology and hydrology including faults, unstable slopes and subsidence areas on site (R315-310-4(2)(b)(i))	N/A
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	N/A
Depth to ground water (R315-310-4(2)(b)(iii))	N/A
Quantity, location, and construction of any private or public wells on-site or within 2,000 feet of the facility boundary (R315-310-4(2)(b)(v))	N/A
Tabulation of all water rights for ground water and surface water on-site and within 2,000 feet of the facility boundary (R315-310-4(2)(b)(vi))	N/A

***I.* Facility General Information**	
Description of Item	Location In Document
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	N/A
For an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	N/A
Calculation of site water balance (R315-310-4(2)(b)(ix))	N/A
IIc. Engineering Report - Plans, Specifications, And Calculations - All Class III Landfills	
Unit design to include cover design; fill methods; and elevation of final cover including plans and drawings signed and sealed by a professional engineer registered in the State of Utah, when required (R315-310-3(1)(b))	Section 4.1 pg 8 Figures 7 & 9
Design and location of run-on and run-off control systems (R315-310-5(2)(b))	Section 4.2 pg 8
IId. Engineering Report - Plans, Specifications, And Calculations - Class IIIa Landfills	
Engineering reports required to meet the location standards of R315-304-4 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	N/A
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	N/A
Equipment requirements and availability (R315-310-4(2)(c)(iii))	N/A
Identification of borrow sources for daily and final cover and for soil liners (R315-310-4(2)(c)(iv))	N/A
Run-off treatment and disposal and documentation to show that any treatment system is being or has been reviewed by the Division of Water Quality (R315-310-4(2)(c)(v) and R315-310-3(1)(i))	N/A
IIe. Closure Requirements - All Class III Landfills	
Closure plan (R315-310-3(1)(h))	Section 5.0 pg 8; Appendix F
Closure schedule (R315-310-4(2)(d)(i))	Section 5.1 pg 9
Design of final cover (R315-310-4(2)(c)(iii))	Section 5.2 pg 9
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Section 5.3 pg 9
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Section 5.4 pg 10
IIf. Post-Closure Care Requirements - All Class III Landfills	
Post-closure care plan (R315-310-3(1)(h))	Section 6.0 pg 10; Appendix F
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(ii))	Section 6.1 pg 10
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Section 6.2 pg 10

***I.* Facility General Information**	
Description of Item	Location In Document
List the name, address, and telephone number of the person or office to contact about the facility during the post-closure care period (R315-310-4(2)(e)(vi))	Section 6.3 pg 10
IIg. Financial Assurance Requirements - All Class III Landfills	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))	Section 7.1 pg 11; Table 2
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Section 7.2 pg 11; Table 2
Identification of the financial assurance mechanism that meets the requirements of Rule R315-309 and the date that the mechanism will become effective (R315-309-1(1) and R315-310-3(1)(j))	Section 7.3 pg 12

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STOCKTON CLASS IIIB LANDFILL
PERMIT APPLICATION

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STOCKTON CLASS IIIB LANDFILL
PERMIT APPLICATION

1.0 FACILITY GENERAL INFORMATION

The Town of Stockton, Utah is in the process installing a new City wide wastewater collection and associated treatment lagoons. Previously, the town was the site of an EPA/DEQ clean-up involving heavy metal contaminated soils. Analysis of samples collected during recent soil investigations show lead concentrations exceed EPA clean up levels and require placement in a repository. Soil placed in the proposed landfill will not exceed standards set forth in 40 CFR 261.24 regarding the toxicity characteristic (for lead).

With this application the Town of Stockton is applying for a permit to operate a Class IIIb landfill for deposition of lead-impacted soil material mainly derived from the excavation of a community sewer system and miscellaneous residential excavation. Figures 1, 2, and 3 show the vicinity and zoning around the proposed landfill. The general site plan and cross sections of the proposed facility are presented on Figures 4 and 5. This report has been prepared to satisfy requirements of the State of Utah Solid Waste Permitting and Management Rules, Section R 315-4(2)(b) for this Class IIIB landfill.

Facility Name: Stockton Solid Waste Management Facility
Facility Owner: Town of Stockton
Facility Operator: Town of Stockton
Site Description: Historically, the site has been used for farming and pasture land and is presently vacant. The proposed landfill location is relatively flat with a gradual slope to the west-northwest toward Rush Lake and is situated on Lake Bonneville lakebed and shoreline deposits. The surficial soils in the area are lean clay to clayey silt.

1.1 General Description of the Facility

(R315-310-3(1)(b))

The facility will be constructed as individual landfill cells, with only one cell open and operating at a time. Cells will be sized to accommodate the intended volume of soil disposal. A new cell will be excavated and opened when the former cell has reached capacity and is closed and capped. The Executive Secretary shall be notified regarding closure and subsequent construction of a new cell in accordance with all applicable administrative rules.

Each cell dimension will be approximately 145 feet x 145 feet. It is anticipated that the cells will be excavated 7 feet deep and will have 3 foot high berms on the native ground surface, resulting in a total waste thickness of 10 feet. Each cell will have a capacity of approximately 5,000 cubic yards.

1.2 Legal Description of the Property

(R315-310-3(1)(c)(d))

The 300 ft X 300 ft site is located approximately ¼ mile southwest of Stockton in the NE1/4 of Section 26, T4S, R5W, SLBM
Latitude: 40° 26' 46" N
Longitude: 112° 22' 27" W

The landfill will be constructed on property owned by the Town of Stockton. (See copy of Deed in Appendix A).

1.3 Waste Type and Anticipated Daily Volume

(R315-310-3(1)(d))

The landfill will not be operated as a commercial entity. Use will be restricted to disposal of excess lead-impacted soils generated during sewer trench construction during the initial project and in the future when residents install laterals and connect to the sewer collection lines. It will also provide for the future disposal of contaminated soils which may result from miscellaneous residential yard excavation.

No soils will be permitted which exceed the toxicity characteristic listed in 40 CFR 261.24 (TCLP lead concentration of 5 mg/L). Section 2.1 and Appendix G of this application discuss the relationship between total lead concentrations, XRF lead values, and TCLP lead concentrations observed in the soil at Stockton. Using these relationships, disposal shall be limited to soils with total lead concentrations less than 3,000 mg/kg (XRF values less than 2,250 ppm).

No construction/demolition, household, or municipal waste will be allowed in the landfill; however, incidental debris associated with sewer hookups will be allowed, such as old pipe.

Daily waste volume will range from a high of 120 cubic yards during excavation of the sewer main lines to a low of 0 to a few yards per week when the facility will be open to residents.

1.4 Intended Schedule for Construction

(R315-302-2(2)(a))

The intended schedule of construction of the Class IIIB landfill would begin in March of 2010, with the excavation of the first cell, which would be ready to accept waste in April or May of 2010. The proposed landfill would be designed, constructed, and operated in accordance with all applicable Federal, State, and County laws and regulations for management and operation of landfill sites. This includes, but is not limited to, Subtitle D of the Resource Conservation and Recovery Act (RCRA) and regulations for solid waste designated by the State of Utah.

1.5 Historical Survey

(R315-302-1(2)(f))
(R315-304-4(2)(a)(iv))

A cultural resource inventory was conducted at the site as required for S Subsection 9-8-404 compliance with the State Historic Preservation Office. A copy of the report is attached in Appendix B. No cultural resource sites were identified during the inventory. A copy of the report with required cover letter was submitted by the town of Stockton to the State Historical Preservation Officer.

1.6 Adjacent Property Owners

(R315-310-3(2)(i))
(R315-310-3(2)(ii))

Table 1 shows the owners of property located within 1000 feet of the facility boundary. The subject lots are indicated on Figure 6.

Table 1
Adjacent Property Owners
Stockton IIIb Landfill

Parcel Number	Parcel Owner	Mailing Address
11-079-0-0004	Larry E. Vancamp	Barbara Macpeek 1870 N. 440 W. Layton, UT 84041
11-079-0-0005	Buddy Smith Brenda Smith	Buddy Smith PO Box 15 415 W. Walk St. Stockton, UT 84071
11-079-0-0006	Richard Metzger Wendy Metzger	Richard Metzger PO Box 301 395 W. Walk St. Stockton, UT 84071
11-079-0-0007	Darin V. Tall Sherri K. Tall	Darin V. Tall PO Box 8 Stockton, UT 84071
11-079-0-0008	Tommy E. Kinsman Synethia M. Kinsman	Synethia M Kinsman PO Box 258 Stockton, UT 84071
11-079-0-0009	Cheryl Lynn Prawl (trustee) Lewis Paul Klason (trustee)	Cheryl Lynn Prawl PO Box 294 335 W. Walk St. Stockton, UT 84071
11-079-0-0010	Kim Allred Dana Allred	Kim Allred PO Box 204 315 W. Walk St. Stockton, UT 84071

Appendix C contains copies of the letters that were sent to the owners of property within 1000 feet of the facility boundary, as well as the postal receipt documenting that the letters were sent out.

1.7 Local Government with Jurisdiction

(R315-310-3(2)(iii))

The town of Stockton will is the local government entity with jurisdiction over the landfill facility.

1.8 Location Standards

(R315-302-1(2)(c)(ii)
(R315-304-4(2)(a)(i))
(R315-302-1(2)(d))
(R315-304-4(2)(a)(ii)
(R315-304-4(2)(a)(iii))

The proposed landfill will be located adjacent to the new wastewater treatment system lagoons to be constructed southwest of the town of Stockton. The landfill cell will be placed northeast of the new lagoons, above the high water mark of Rush Lake. The proposed location of the landfill cell is on the opposite side of the lagoons as Rush Lake.

Since it is situated above the high water mark of Rush Lake, and is not located near any streams, the cell is not located in any floodplain or wetland area.

Records for a private well located approximately 2,400 feet southeast of the landfill indicate the depth to water of 170 feet in 1980. While investigating the site for the future adjacent wastewater treatment lagoons a test hole was drilled which encountered water at a depth of between 50 and 60 feet. In addition, two Geoprobe borings were drilled to a depth of 25 feet at the landfill site and no water was encountered. The evidence indicates that the lowest level of the landfill cell will be greater than 10 feet above the historical high level of groundwater.

2.0 PLAN OF OPERATION

2.1 Waste Handling Procedures

(R315-302-2(2)(b))
(R315-310-3(1)(f))

Landfill operations will be divided into three main phases. Each phase will correspond to a separate cell constructed for the purpose of providing disposal for that particular waste soil volume.

Only soil having a TCLP lead concentration less than the hazardous waste limit of 5 mg/L will be allowed in the landfill. Studies were conducted previously during earlier lead soil cleanup activities in Stockton, in order to develop a relationship between the TCLP values and the total lead concentrations (Pacificorp, 2004, Classification of Metal Contaminated Soil, Town of Stockton –

OU1, as a Bevill Waste). A summary of the study results is contained in Appendix G.

Based on the relationship between total lead and TCLP lead values at the site, a concentration of 3,000 mg/kg total lead is considered to be hazardous waste and shall be removed from the site to a hazardous waste disposal facility. This is consistent with the determination made during previous cleanup efforts to consider soil with lead concentrations greater than 3,000 mg/kg as hazardous waste. Soil with total lead concentrations greater than 500 mg/kg is considered to be impacted.

During the previous studies (Appendix G) a comparison was also made between the XRF lead values, total lead concentrations, and TCLP lead concentrations. The average ratio between XRF values and total lead concentrations was 81%. A ratio of 75% will be the criteria used to screen the soil coming into the landfill (with 5% of the samples being sent to the laboratory for verification analysis of total lead).

Therefore, soil not being replaced in the trenches or excavations, with total lead concentrations less than 3,000 mg/kg, or XRF values less than 2,250 ppm may be placed in the landfill.

Phase 1: During the installation of the wastewater treatment system main lines, the landfill will be used for disposal of the waste soil from the main sewer trenches.

Phase 2: During Phase 2, the landfill will be used for the disposal of impacted soils generated from the installation of the sewer laterals to individual residences.

Phase 3: After the wastewater treatment system is in place, the landfill will be used (as needed) for the disposal of impacted soils from miscellaneous homeowners' activities, including construction excavation, and any other activity which results in more than one cubic yard of contaminated soil (as per Stockton Ordinance #20004 – Excavation and Development within the Jacob Smelter).

During Phase 1, trucks carrying soil spoils from trenches during excavation of sewer lines, dispose of soil in landfill cell. Trucks will back into the landfill cell, keeping tires on the gravel track-in pad. Loads will be dumped at the edge of the pad and heavy equipment (such as a dozer or backhoe with loader bucket) will be used to spread the soil within the landfill cell. Trucks will not drive across the bottom of the landfill, over impacted soil, thus eliminating the potential to track impacted soil back onto city roads.

During Phase 2 and Phase 3 operations, the town of Stockton will operate the landfill on an as-needed basis. The gate will be opened to homeowners (or their designated contractors) on an appointment schedule to be determined. The homeowner will be responsible for providing the landfill operator with documentation stating that proper testing has been completed on the soil and that it meets the disposal criteria, and that it does not exceed hazardous waste limits. Residents will deposit the soil at the edge of the gravel track-in pad, after which the operator will spread the material across the landfill cell using a dozer.

During all three phases, a log will be kept identifying the waste placed in the landfill, including the date, waste type (documenting that no alternative waste is being placed), lead concentration, and volume of the load. A copy of the log form is included in Appendix D. The gate will remain locked at all times that the landfill is not actively receiving waste with the operator present.

The operator will be trained in the inspection of loads to ensure only proper material is placed in the landfill cell (see Section 2.9).

2.2 Inspections and Monitoring

(R315-302-2(2)(c))
(R315-302-2(5)(a))
(R315-310-3(1)(g))

The landfill will be inspected a minimum of quarterly. An inspection will also occur after a major storm event (greater than a 25 year 24 hour storm). The inspections are intended to provide assurance that the landfill is functioning as designed, with no erosion damage to the berms or cover. An inspection form is included in Appendix D. The completed inspection form shall be kept on file at the Stockton Town offices for a period of at least three years.

2.3 Fire/Explosion Contingency Plans

(R315-302-2(2)(d))

Only non-flammable soils will be disposed of in the landfill. No liquid or solid flammable or combustible waste will be accepted in the landfill.

2.4 Fugitive Dust Control

(R315-302-2(2)(g))

Soils will be brought to the landfill and dumped in a moistened condition. The disposed soils will be spread and compacted with a loader or dozer, minimizing the loose material subject to wind. The active area of the landfill surface will be lower in elevation than the surrounding berms, which will provide a wind break.

Fine materials that present a fugitive dust risk shall be covered with a minimum of six inches of earth at the end of the working day in which they are received. A six-inch earthen cover shall be placed at least once a month for all wastes received at the landfill. Cover material shall consist of native soils derived from the construction of the landfill cell and stockpiled to the side of the cell.

2.5 Litter Control

(R315-302-(2)(h))

No household or construction-demolition waste will be allowed in the landfill, so no litter is expected.

2.6 Procedure to Exclude Hazardous Waste

(R315-302-2(2)(j))

Soil having TCLP lead concentrations greater than 5 mg/L is considered hazardous waste and shall not be allowed in the landfill. As indicated in Section 2.1, and in the data presented in Appendix G, a relationship has been established between total lead concentrations, XRF lead values, and TCLP lead concentrations for soil in Stockton. Relying on this relationship, the concentration limits used as acceptance criteria for soil disposal will be 3,000 mg/kg total lead as determined by laboratory analysis (EPA SW-846 Method 3050B) or 2,250 ppm lead by XRF analysis. Analytical data shall accompany and be logged for each load entering the landfill.

The landfill operator will inspect each load entering the landfill to ensure that the waste type is in accordance with the allowed waste for this landfill, which includes excavated soil, along with incidental pipe and debris from the excavation. A log sheet will record all waste loads brought to the landfill.

2.7 Procedure to Control Disease Vectors

(R315-302-2(2)(k))

Since household, biological, or otherwise hazardous waste is excluded from the landfill, no material harboring disease vectors is expected to be present in the landfill. Waste soil will be graded to avoid water ponding in order to prevent mosquito larvae habitat.

2.8 Alternative Waste Handling

(R315-302-2(2)(l))

If there is a time when the landfill is not able to accept waste, material (approved for documented for disposal) may be stored in one of two stockpile areas located within the landfill facility fence. Material will be placed in the landfill cell as soon as practical following procedures listed in Section 2.1.

2.9 General Training and Safety Plan for Site Operators

(R315-302-2(2)(o))

All landfill operators will be trained in accordance with the General Training and Safety Plan presented in Appendix E.

2.10 Recycling Programs

(R315-303-4(6))

Because household solid waste is not accepted at the landfill, no recycling program is planned for the landfill.

3.0 MAPS

3.1 Topographic Map

(R315-310-4(2)(a)(i))

A topographic map is presented as Figure 7

3.2 USGS Topographic Map

(R315-310-4(2)(a)(ii))

The most recent US Geological Survey topographic map is included as Figure 8.

4.0 ENGINEERING REPORT

4.1 Design and Fill Methods

(R315-310-3(1)(b))

Individual cells will be constructed to hold the waste soil from the different phases of the landfill. Figures 7 and 9 show the design of the cell and future closure. Each cell will be constructed by excavating a pit approximately 7 feet below grade and using the spoils to construct berms approximately 3 feet above grade. Cut and fill slopes will be constructed at a 3% grade. Waste soil will be placed and spread in the cell, then wheel or track rolled for compaction (depending upon the equipment used). When the elevation of the waste soil reaches the height of the berms, a cap will be placed over the waste, consisting of 18 inches of soil and 6 inches of topsoil (both derived from the excavation of the cell). The cap will have a slope between 2% and 3%. Following placement, the cover shall be vegetated to prohibit erosion (see Section 5.2).

4.2 Run-On / Run-Off Controls

(R315-310-5(2)(b))

The constructed berm around the waste cell will prohibit surface water run-on into the cell. Within the cell, waste will be graded as it is received in order to promote evaporation and inhibit ponding as much as possible.

Run-off from the outside of the berms shall be diverted away from the landfill cell and routed via drainage swales into the ditch surrounding the wastewater treatment lagoon site.

5.0 CLOSURE PLAN

(R315-310-3(1)(h))

A Closure Plan for this facility is included in Appendix F. This plan is intended to comply with the requirements of R315-302-3 and minimize the need for future maintenance, and protect human health and the environment.

5.1 Closure Schedule

(R315-310-4(2)(d)(i))

Administrative rule R315-302-3(4)(a) requires that the owner or operator notify the Executive Secretary of the intent to implement the Closure Plan 60 days prior to the projected final receipt of waste at the facility. Since future disposal in the landfill (Phase 2 operation) is likely to be sporadic, dependent upon the need of residents, it may be difficult to anticipate the when the final load will be received that would cause the landfill to reach capacity. The owner or operator shall therefore notify the Executive Secretary when the landfill is within 6 inches of reaching the final elevation.

5.2 Final Cover Design

(R315-310-4(2)(c)(iii))

Figure 9 shows the proposed landfill cover design. The cover of the landfill shall consist of a minimum 2 foot cap consisting of 18 inches of native material (derived from the cell excavation) and 6 inches of topsoil. The soil and topsoil required for the cover shall be obtained from the cell excavation and shall be stockpiled adjacent to the cell (within the permitted fenced landfill area). Documentation shall be provided in the annual report submitted to the State that a sufficient quantity of soil required for the cover is stockpiled.

The surface of the cover shall be graded to promote drainage while minimizing erosion potential. The final surface of the landfill shall be surveyed prior to and after cover placement to verify the required thickness of the cap.

The final surface shall be seeded with native vegetation to help prohibit wind or water erosion. The following seed will be planted at the rate of 20 lbs/acre:

- Crested wheatgrass (40%)
- Smooth brome (50 %)
- Russian wildrye (5 %)
- Yellow clover (5%)

5.3 Capacity of Facility

(R315-310-4(2)(d)(ii))

Each cell of the landfill facility is designed to hold approximately 5,000 cubic yards of waste material.

5.4 Final Inspection

(R315-310-4(2)(d)(iii))

Prior to placing the cover, the owner or operator shall schedule a final inspection of the facility by regulatory agencies.

6.0 POST-COSURE PLAN

(R315-310-3(1)(h))

A Post-Closure Plan for this facility is included in Appendix F. This plan is intended to comply with the requirements of R315-302-3 and provide for future protection of human health and the environment.

6.1 Changes to Record of Title, Land Use, Zoning Requirements

(R315-310-4(2)(e)(ii))

Within 60 days after certification of closure, the owner or operator shall submit plats and a statement of fact concerning the location of the disposal site to the county recorder to be recorded as part of the record of title and submit proof of the record of title filing to the Executive Secretary.

6.2 Maintenance Activities

(R315-310-4(2)(e)(iii))

During the post-closure period, the closed landfill facility will be inspected bi-annually to assess the stability of the closure features (slope stability, vegetation growth, etc.). Maintenance will be performed as necessary to correct for erosion, or other issues which are seen as a potential risk to human health or the environment. The post-closure period will continue for a period of 30 years, or until the Executive Secretary determines that the facility has become stabilized. The inspection form is included in Appendix D of this application.

6.3 Contact Person

(R315-310-4(2)(e)(vi))

The contact person for the landfill shall be the current mayor of Stockton (or successor). The current mayor (2010) is:

Mark Whitney, Mayor
Town of Stockton
18 North Johnson Street
PO Box 240
Stockton, UT 84071

7.0 FINANCIAL ASSURANCE PLAN

7.1 Closure Costs

(R315-310-4(2)(d)(iv))

The estimated closure costs are shown on Table 2. The costs include spreading the cover material, consisting of 18 inches of soil and 6 inches of topsoil, over the open cell. The topsoil surface will then be seeded with native vegetation.

7.2 Post-Closure Care Costs

(R315-310-4(2)(e)(iv))

Post-Closure costs will include a bi-annual inspection. Maintenance actions will repair any deficiencies which may be found. Such maintenance actions are assumed to be minor, such as repair of erosion rills or re-seeding areas of the cap.

Table 2
Estimated Closure and Post-Closure Costs

Closure				
Task	**Quantity**	**Units**	**Unit Cost**	**Task Cost**
Place and grade 18 inch cover soil	1,500	CY	$5	$7,500
Place and grade 6 inch topsoil	500	CY	$5	$2,500
Vegetation seeding	0.8	Acre	$1000	$800
			Closure Cost	**$10,800**
Post-Closure (30 yr)				
Task	**Quantity**	**Units**	**Unit Cost**	**Task Cost**
Inspection (per event)	8	Hr	$40	$320
			Post-Closure Inspection Cost (2 inspections/year x 30 years)	**$19,200**
Maintenance Contingency	1	LS	$10,000	**$10,000**
			Total Estimated Closure and Post-Closure Costs	**$40,000**

7.3 Financial Assurance Mechanism

(R315-309-1(1))
(R315-310-3(1)(j))

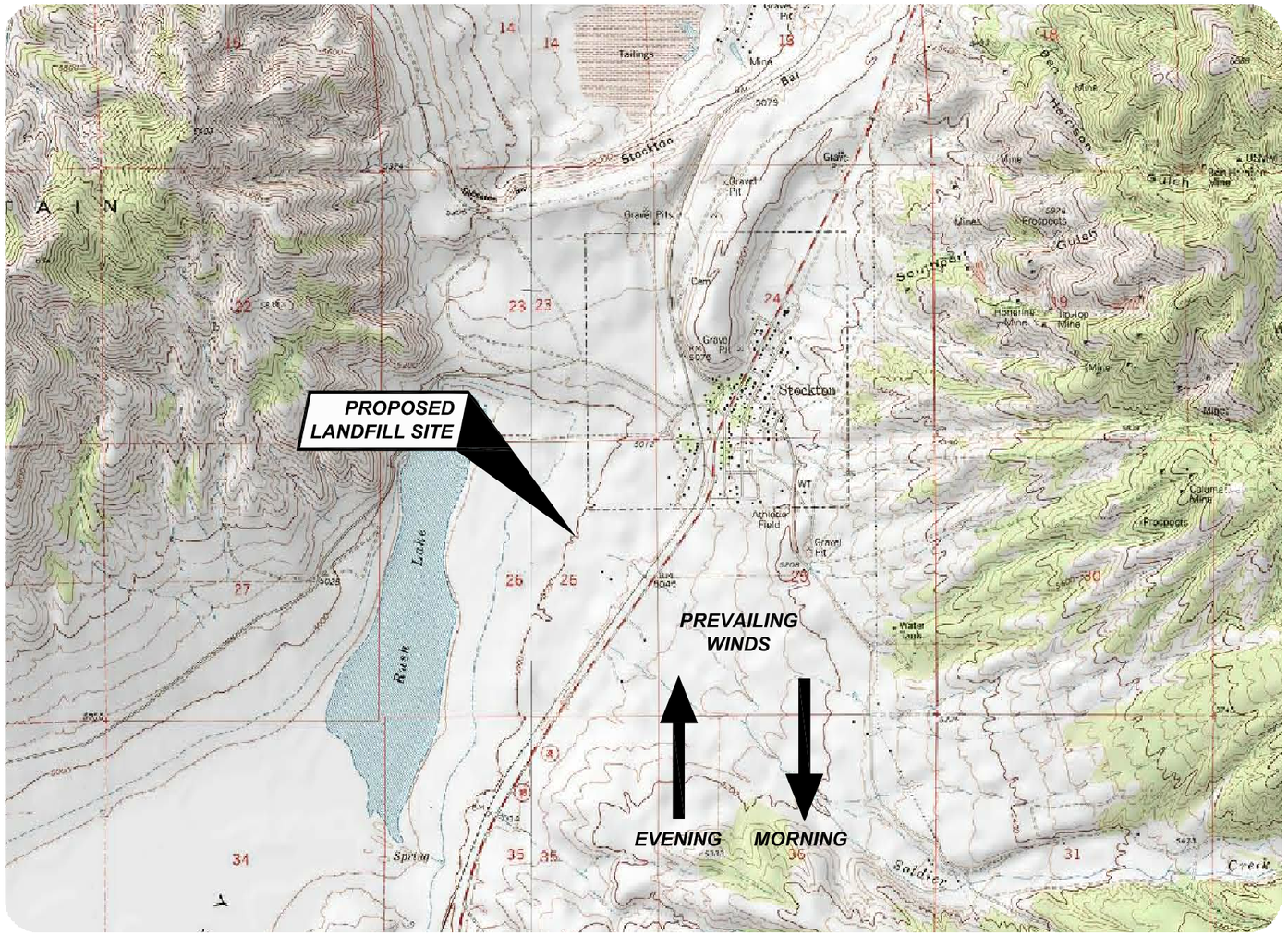
It is proposed to use the mechanism of a Trust Fund, consisting of a Public Treasurer's Investment Fund (PTIF) account with the Utah State Treasurer's Office. The financial assurance shall be updated yearly as part of the required annual report for the facility to adjust for inflation or facility modification.

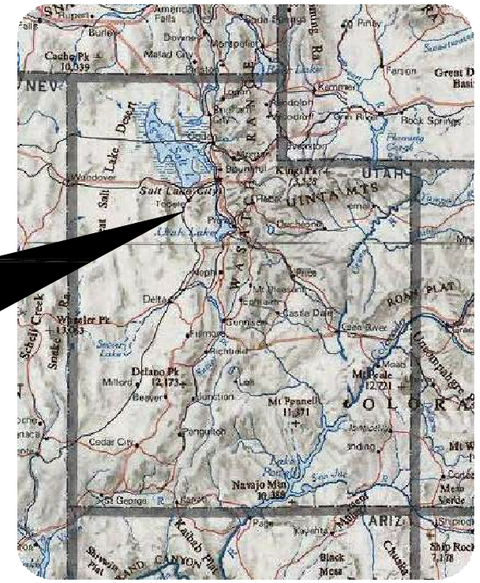
8.0 RECORD KEEPING AND REPORTING

(R315-302-2(4))

In accordance with R315-302-2(4) the landfill owner shall prepare an annual report and place the report in the facility's operating record. The owner shall submit a copy of the annual report to the Executive Secretary by March 1 of each year for the most recent calendar year or fiscal year of facility operation. The report shall include, at a minimum, the following information:

- The name and address of the facility.
- The calendar year covered by the report.
- Annual quantity, in cubic yard, of solid waste received.
- The annual update of the required financial assurances mechanism pursuant to Subsection R315-309-2(2).
- Training programs or procedures completed.
- Documentation that sufficient cover soils (soil and topsoil) are stockpiled at the site





N

Scale in Miles

0 0.5 1

General Notes

No.	Revision/Issue	Date

JOHANSEN CONSTRUCTION, INC.

ANDERSON ENGINEERING COMPANY, INC.

DRAWN BY: SB

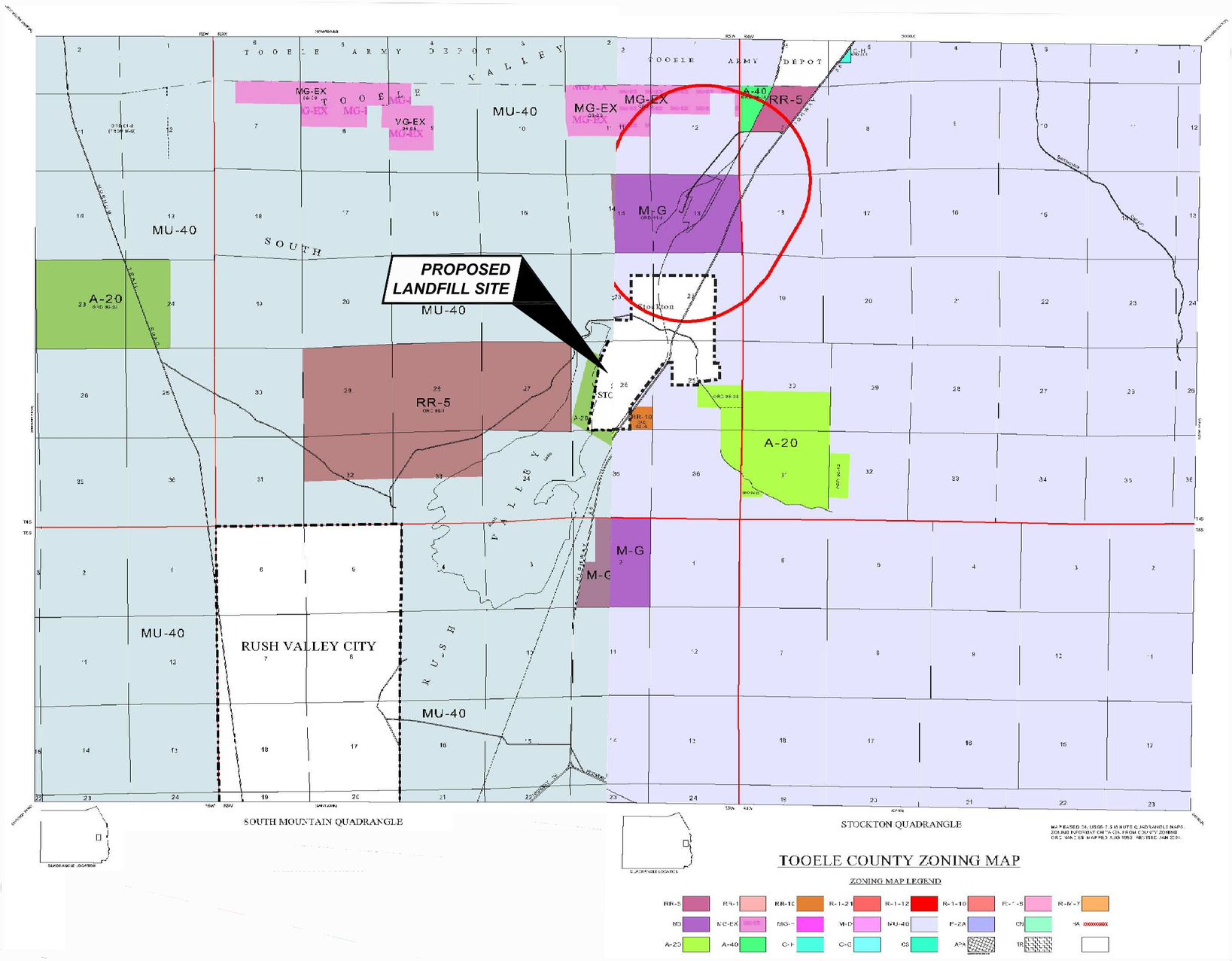
ENGINEER: SB

APPROVED:

LOCATION MAP

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 1
Date: 13-OCT-2009	
Scale: AS SHOWN	



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF ANDERSON ENGINEERING COMPANY, INC., 977 WEST 2100 SOUTH, SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes

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ANDERSON
ENGINEERING COMPANY, INC.

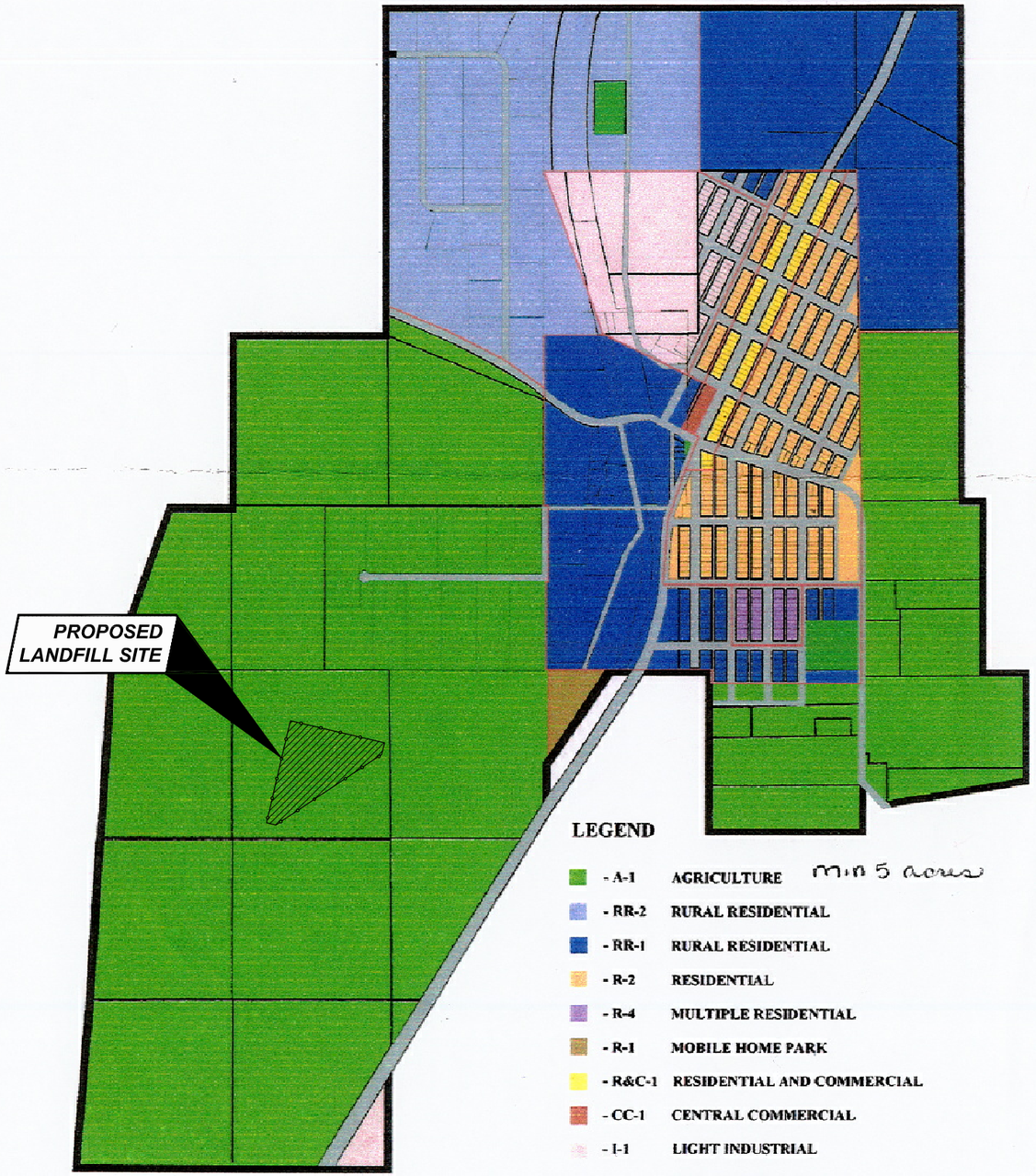
DRAWN BY:	SB
ENGINEER:	SB
APPROVED:	

COUNTY ZONING MAP

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	XX-XXX
Date	13-OCT-2009
Scale	AS SHOWN
Sheet	FIGURE 2

TOWN OF STOCKTON ZONING MAP



General Notes

No.	Revision/Issue	Date

JOHANSEN CONSTRUCTION, INC.

ANDERSON
ENGINEERING COMPANY, INC.

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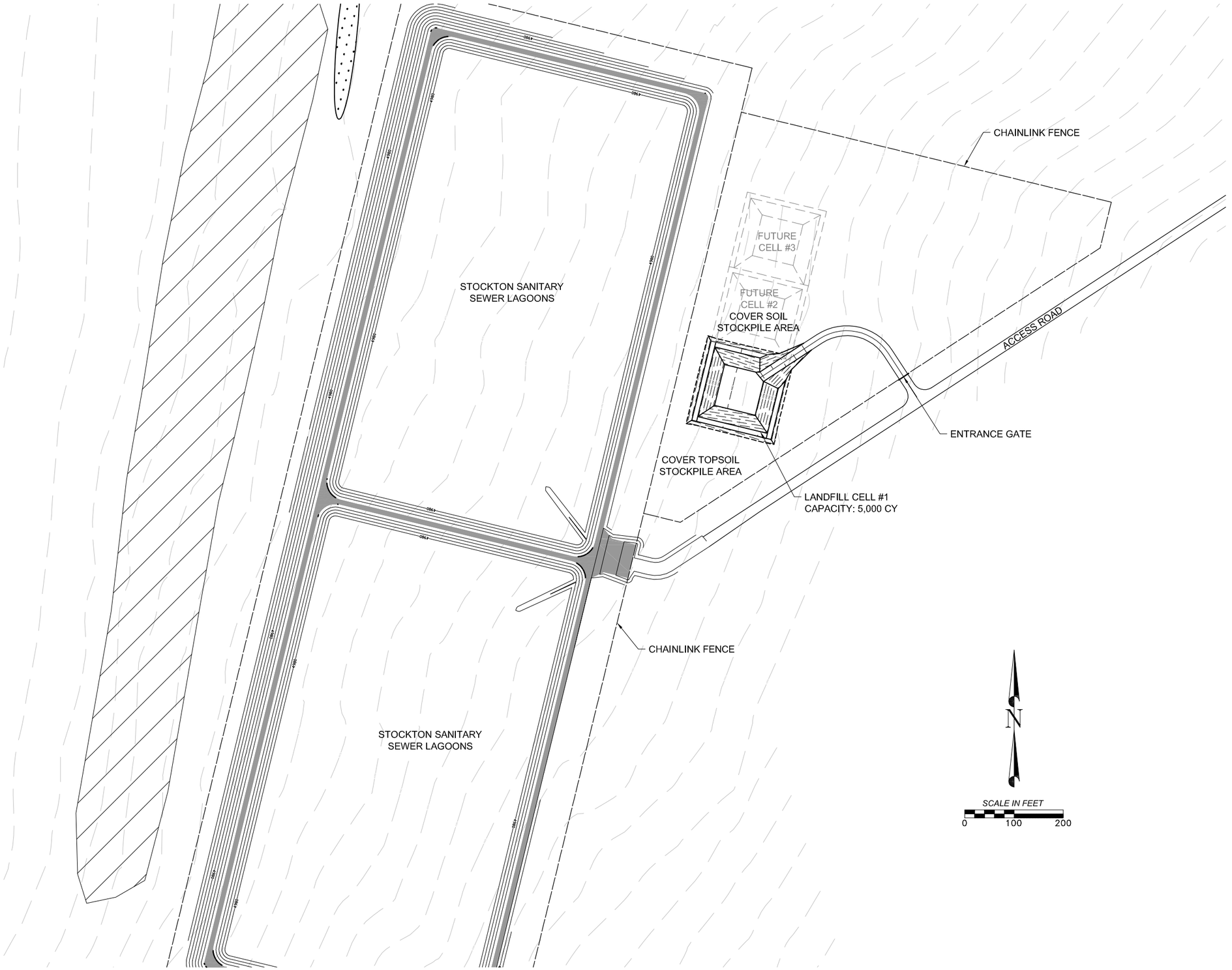
ENGINEER: SB
APPROVED:

TOWN OF STOCKTON ZONING MAP

STOCKTON CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 3
Date: 13-OCT-2009	
Scale: AS SHOWN	



General Notes

No.	Revision/Issue	Date

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ANDERSON ENGINEERING COMPANY, INC.

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ENGINEER: SB
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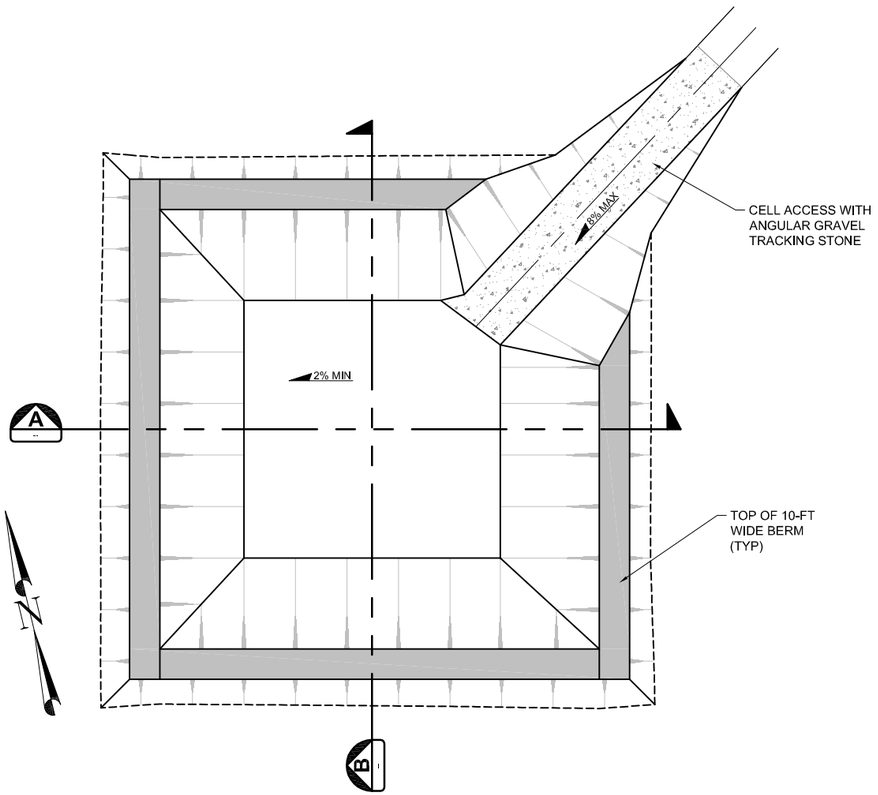
SITE PLAN

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

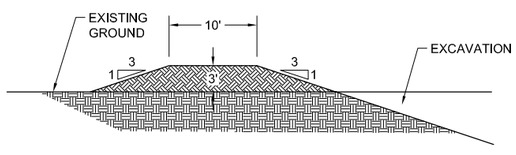
Project	Sheet
XX-XXX	FIGURE 4
Date: 22-DEC-2009	
Scale: AS SHOWN	



PLAN VIEW

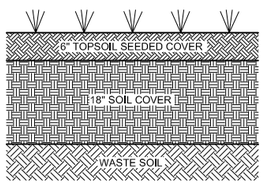
SCALE: 1" = 50'

0 25 50



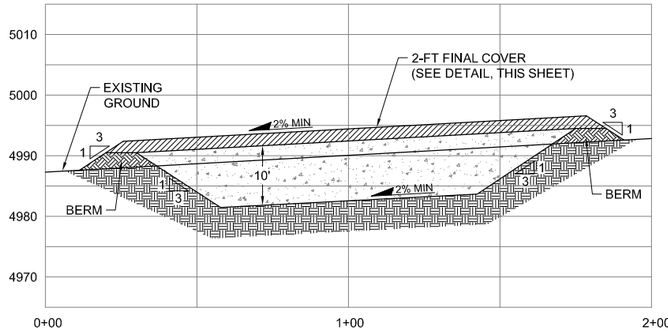
TYPICAL BERM SECTION

N.T.S.



FINAL COVER

N.T.S.



A SECTION

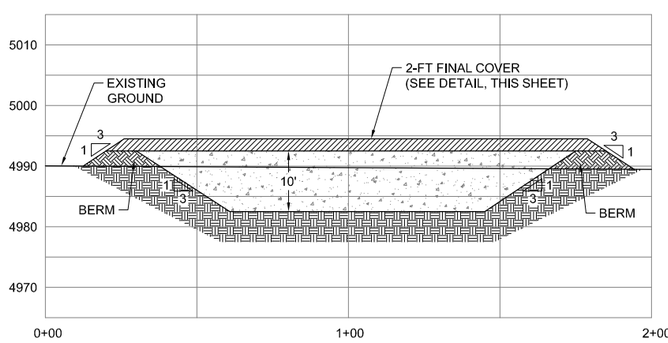
SCALE: HOR. 1" = 50', VER. 1" = 25'

HORIZONTAL

0 25 50

VERTICAL

0 15 25



B SECTION

SCALE: HOR. 1" = 50', VER. 1" = 25'

HORIZONTAL

0 25 50

VERTICAL

0 15 25

General Notes

No.	Revision/Issue	Date

JOHANSEN CONSTRUCTION, INC.

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ENGINEERING COMPANY, INC.

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ENGINEER: SB

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PLAN AND CROSS SECTIONS

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project: XX-XXX

Date: 22-DEC-2009

Scale: AS SHOWN

Sheet: FIGURE 5

General Notes

No.	Revision/Issue	Date

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ENGINEERING COMPANY, INC.

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ENGINEER: SB
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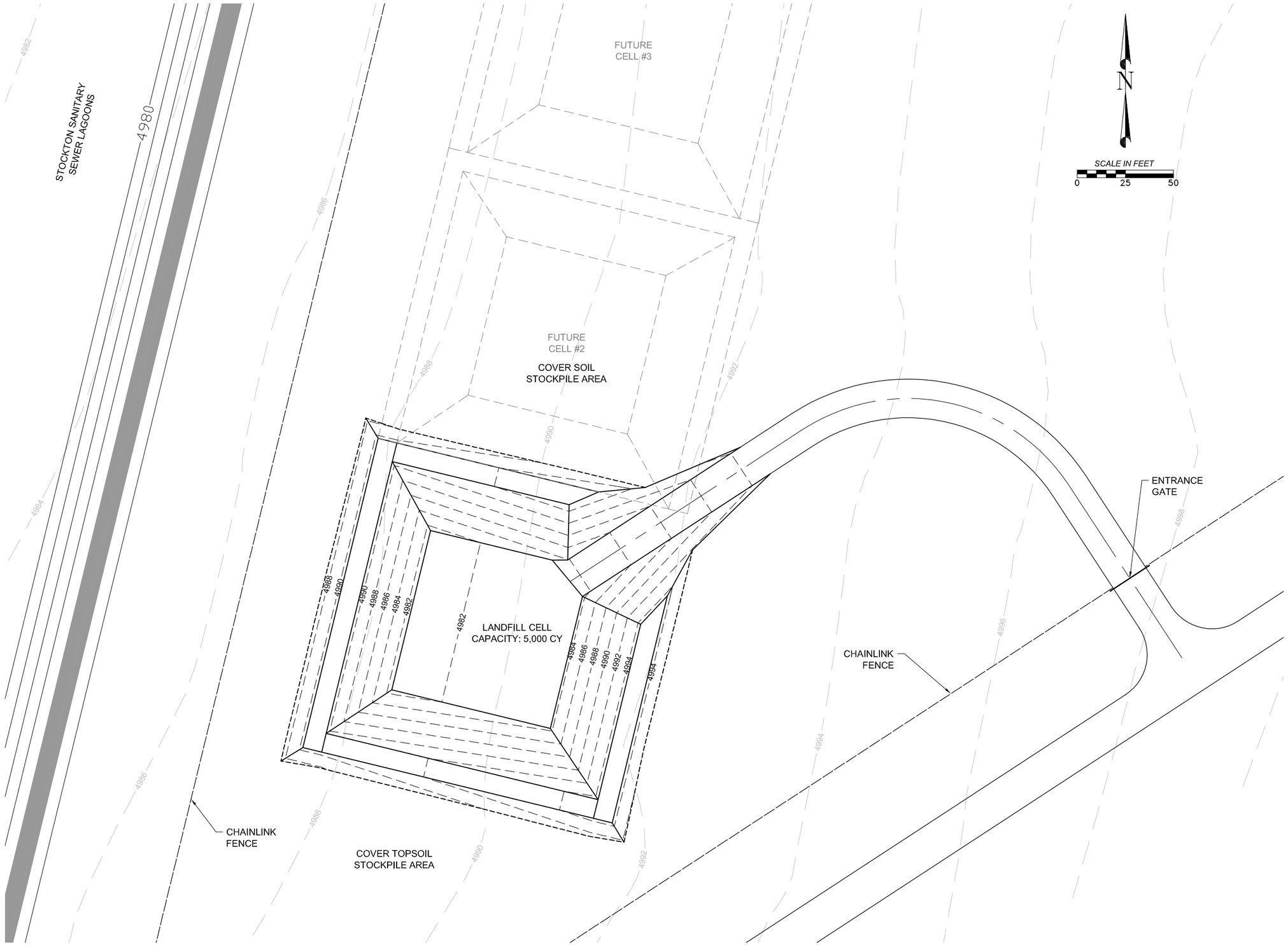
AERIAL VIEW WITH OVERLAY

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 6
Date: 22-DEC-2009	
Scale: AS SHOWN	



General Notes

No.	Revision/Issue	Date

JOHANSEN CONSTRUCTION, INC.

ANDERSON
ENGINEERING COMPANY, INC.

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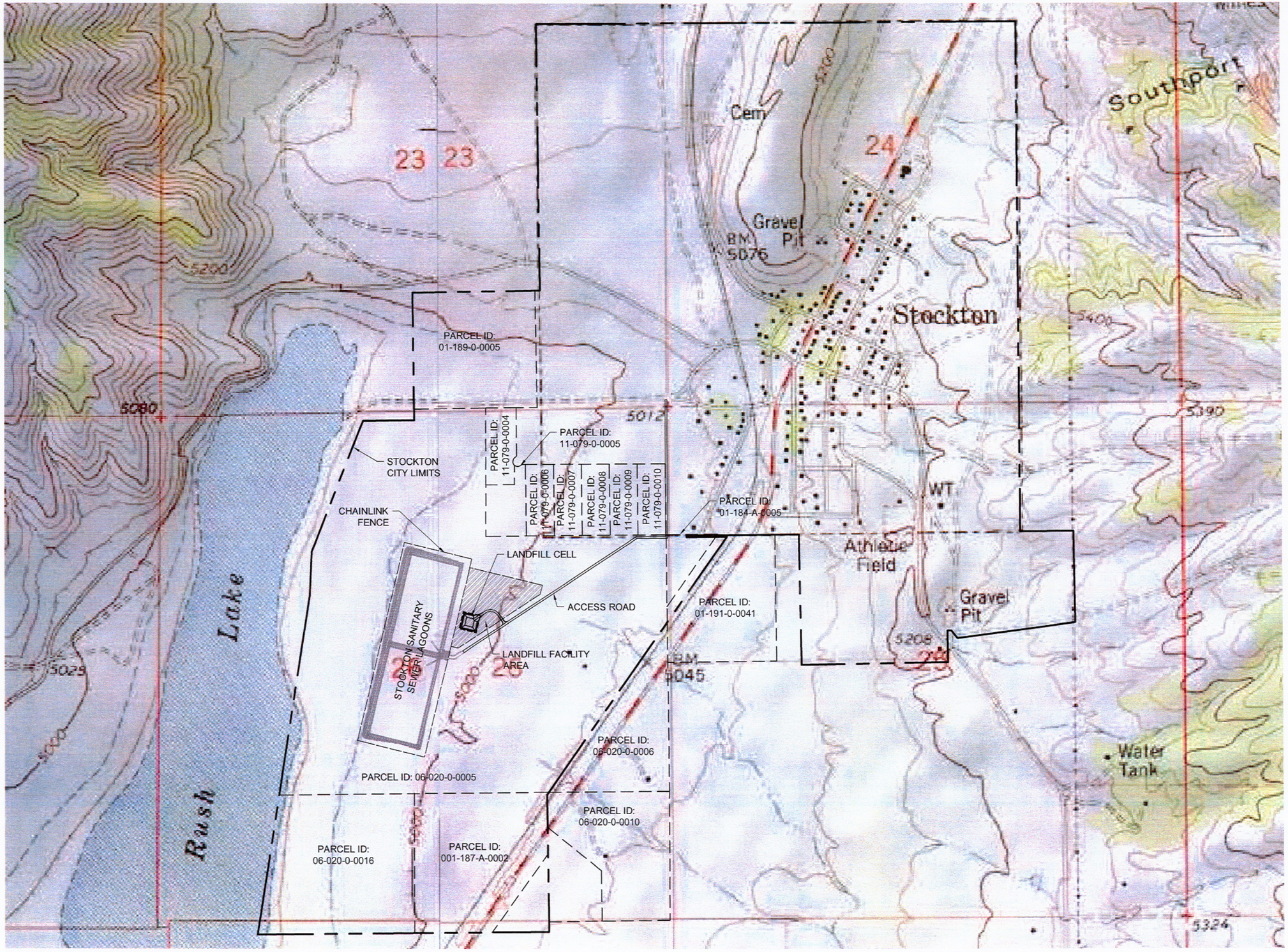
ENGINEER: SB
APPROVED:

INITIAL LANDFILL TOPOGRAPHY

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 7
Date: 22-DEC-2009	
Scale: AS SHOWN	



General Notes

N

SCALE IN FEET
0 500 1000

No.	Revision/Issue	Date

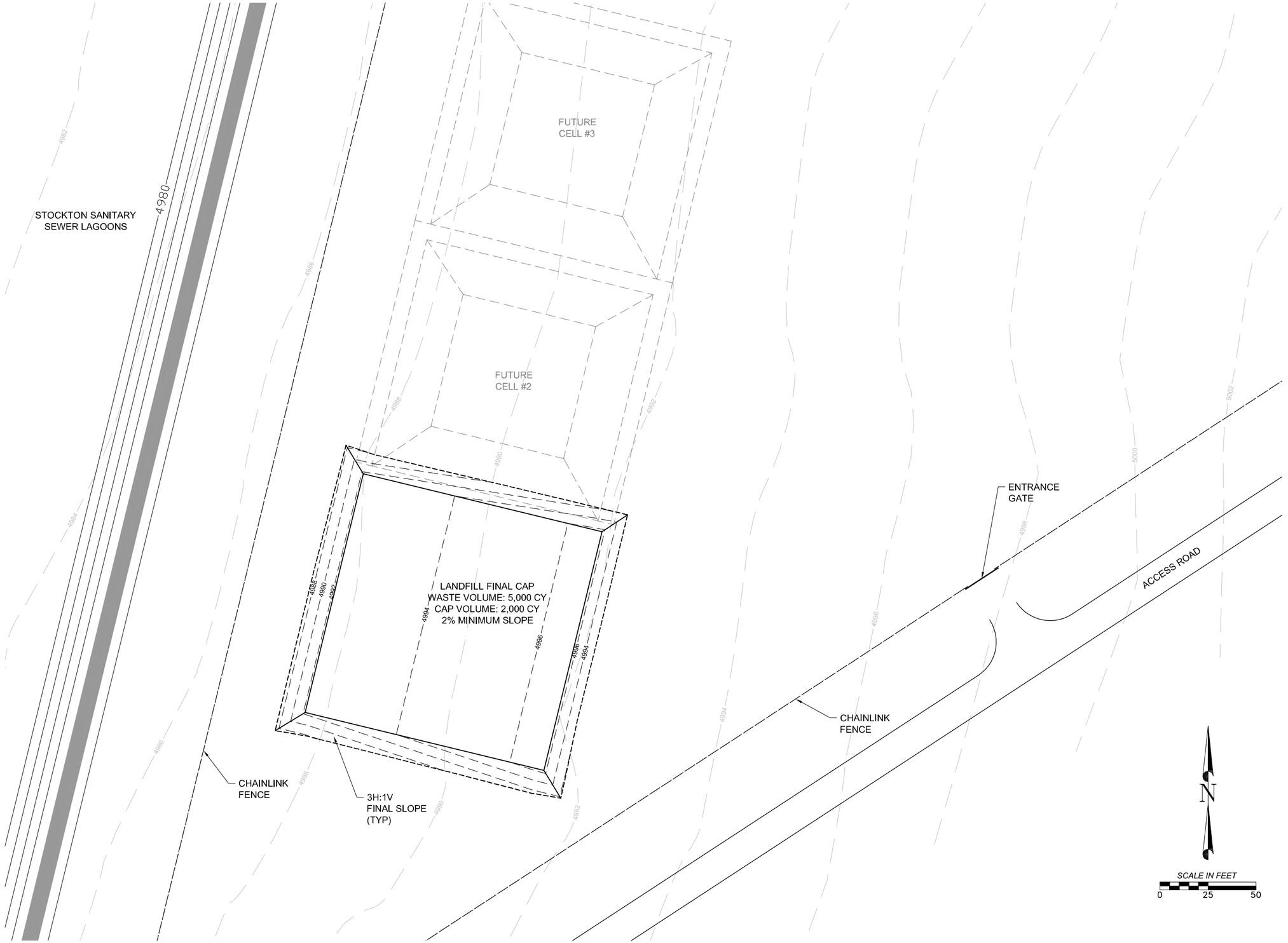
JOHANSEN CONSTRUCTION, INC.

ANDERSON ENGINEERING COMPANY, INC.

DRAWN BY: DBJ
ENGINEER: SB
APPROVED:

USGS TOPOGRAPHIC MAP
STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 8
Date: 22-DEC-2009	
Scale: AS SHOWN	



General Notes

No.	Revision/Issue	Date

JOHANSEN CONSTRUCTION, INC.

ANDERSON
ENGINEERING COMPANY, INC.

DRAWN BY: SB
ENGINEER: SB
APPROVED:

FINAL LANDFILL TOPOGRAPHY

STOCKTON
CLASS IIIB LANDFILL
STOCKTON, UTAH

Project	Sheet
XX-XXX	FIGURE 9
Date: 22-DEC-2009	
Scale: AS SHOWN	

Stockton Class IIIb Landfill

Appendix A

Property Ownership Deed

155

WHEN RECORDED MAIL TO

SPECIAL WARRANTY DEED

Number 209600-5

WESTERN FARM CREDIT BANK, a corporation existing under provisions of the Farm Credit Act of 1971 (Public Law 92-181), as amended, with its principal place of business at Sacramento, California, for good and valuable consideration, receipt of which is acknowledged, does hereby GRANT, BARGAIN, SELL, CONVEY, and WARRANTS against all claiming by, through or under it to

TOWN OF STOCKTON

all that real property in the County of Tooele, State of Utah, described as follows:

FOR DESCRIPTION OF REAL PROPERTY SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

IN WITNESS WHEREOF, the Western Farm Credit Bank, has caused this deed to be executed and its corporate seal to be affixed by its proper and duly authorized officers on August 7, 1991.

WESTERN FARM CREDIT BANK ORGANIZED JULY 1st 1988 ELEVENTH DISTRICT

WESTERN FARM CREDIT BANK

By _____
Manuel Cordero,
Vice President

BOOK 327
045553
PAGE 155-156
ENT V PT V AB BLK
Water Blk.

Superseded Title

'92 FEB -3 PM 3:49

DONNA S. McKEE, COUNTY
TOOELE COUNTY RECORDER

FEE 12.50

STATE OF California.....)

County of Sacramento.....)

On August 7, 1991, before me, the undersigned Notary Public in and for said County and State, personally appeared Manuel Cordero [(XX) personally known to me] [( ) proved to me on the basis of satisfactory evidence] to be the person(s) who executed the within instrument as Vice President or on behalf of the corporation therein named and acknowledged to me that the corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

OFFICIAL SEAL
SUSAN SCINTO
NOTARY PUBLIC-CALIFORNIA
SACRAMENTO COUNTY
My Comm. Expires 8-27-94

WITNESS my hand and official seal

_____ 155
Notary Public in and for said
County and State

Mail tax statements to:

Name Address Zip

EXHIBIT A

1-20-9

Lots 1, 2, 3, and 4; the Northeast quarter: the North half of the Southeast quarter of Section 26, Township 4 South, Range 5 West, Salt Lake Base and Meridian.

Excepting therefrom that portion thereof, included in Utah Highway No. 36, County Roads, and railroad rights of way.

Also excepting therefrom the following: Beginning at the Southeast corner of the Northeast quarter of the Southeast quarter of Section 26, Township 4 South, Range 5 West, Salt Lake Base and Meridian; and running thence North 1390.0 feet along the Section line to the Southeasterly side of the State Highway No. 36; thence South 36°04' West 1719.66 feet along the Southeasterly side of said Highway; thence East 1012.50 feet to the point of beginning.

Also excepting therefrom: Beginning 50 feet South and 30 feet West from the Northeast corner of Section 26, Township 4 South, Range 5 West, Salt Lake Base and Meridian; thence South 208 feet; West 208 feet; North 208 feet; and East 208 feet to the beginning.

TOGETHER WITH the right to divert 3 c.f.s. of water from Rush Lake for the irrigation of 365 acres of the above described land as more fully described under Water User's Claim Number 15-1730 issued by the State Engineer.

ALSO TOGETHER with the right to use 5/12 of the water diverted from Soldier Creek for the irrigation of 212.1 acres of the above described land as more fully described under Water User's Claim Number 15-2283 issued by the State Engineer.

Stockton Class IIIb Landfill

Appendix B

Historical Preservation Survey

TOWN OF STOCKTON
18 North Johnson Street
P.O. Box 240
Stockton, Utah 84071
Phone: (435) 882-3877
Fax: (435) 833-9031

Utah State Historic Preservation Office
Attn: Lori Hunsaker
300 S Rio Grande St
Salt Lake City UT 84101-1106

Dear Ms. Hunsaker:

The City of Stockton formally requests that you review the enclosed cultural resource inventory report for a proposed landfill near Stockton, Utah. This request incorporates both consultation under 36CFR800 and Utah Code 9-8-404. If you have any questions, please contact EarthTouch archaeologist, Lorna Billat, at her email lbillat@earthtouchinc.com or phone 801-423-1014. Thank you for your attention to this matter.

Sincerely,

Mark Whitney
Stockton Mayor

COVER PAGE
Must Accompany All Project Reports
Submitted to Utah SHPO

Project Name: A Cultural Resource Inventory of A Proposed Landfill Area Near Stockton, Tooele County, Utah

State Project No.: U-09-EP-0731s
Report Date: November 30, 2009
Principal Investigator: Lorna Billat
Records search completed at what office(s)? USHPO
Record search date(s): 11/19/09
Acreage Surveyed
Intensive: 13.9 acres (city land)

County (ies): Tooele
Field Supervisor(s): Lorna Billat
Recon/Intuitive:

7.5' Series USGS Map Reference(s): Stockton, Utah

Sites Reported	Count	Smithsonian Site Numbers
Archaeological Sites		
Revisits (no inventory form update)	0	
Revisits (updated IMACS site inventory form attached)	0	
New Recordings (IMACS site inventory form attached)	0	
Total Count of Archaeological Sites	0	
Historic Structures (USHS 106 site info form attached)		
Total National Register Eligible Sites	0	

Checklist of Required Items

1. 1 Copy of the Final Report,
2. Copy of 7.5' Series USGS Map with Surveyed/Excavated Area Clearly Identified.
3. Completed IMACS Site Inventory Forms, Including Parts A and B or C, the IMACS encoding form, Site Sketch Map, Photographs, and Copy of the Appropriate 7.5' Series USGS Map with the Site Location Clearly Marked and Labeled with the Smithsonian Site Number.
4. Completed "Cover Sheet" Accompanying Final Report and Survey Materials

A CULTURAL RESOURCE INVENTORY OF A PROPOSED LANDFILL AREA NEAR STOCKTON, TOOELE COUNTY, UTAH

ET Cultural Resource Report 09-18

By

Lorna Billat and Sean Thal

Prepared for
Anderson Engineering Company Inc.
Salt Lake City, UT

Submitted by

EarthTouch, Inc.
3135 North Fairfield Road, Suite D
Layton, Utah 84041
Telephone: 801.771.2800
Facsimile: 801.771.2838

November 23, 2009

Utah SHPO Project U-09-EP-0731s

ABSTRACT

On behalf of Anderson Engineering Company Inc., EarthTouch, Inc. has conducted a cultural resource inventory of a proposed landfill area in Tooele County, Utah. The project location is situated about ½-mile southwest of Stockton, Utah. The proposed landfill is on lands administered by the community of Stockton. The inventory for the landfill covered 13.9 acres. No cultural resource sites were identified during the Class III pedestrian inventory of the proposed project area. The project will have no effect on any known cultural resource sites.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

1.0 INTRODUCTION

On behalf of Anderson Engineering Company, Inc., EarthTouch, Inc. has conducted a cultural resource Class III inventory of a proposed landfill area (Figure 1). The subject property is situated about ½-mile southwest of Stockton, in Tooele County, Utah. The proposed landfill location is on lands administered by the community of Stockton. The cultural resource inventory covered approximately 13.9 acres. The field work was completed on November 20, 2009, by EarthTouch archaeologists Lorna Billat and Sean Thal. The project was completed under Utah SHPO Project Authorization No. U-09-EP-0731s.

The proposed landfill constitutes a repository for contaminated soil resulting from the excavation of sewer trenches within the town of Stockton. The former Jacob's Smelter caused portions of the town to be impacted with elevated concentrations of lead. Within the last 10 years, the impacted residential lots in town were remediated, but there still remained subsurface soil below the roads containing lead. This is the soil that the repository is designed to contain. The top surface will be about three feet above ground and will slope to one side for drainage.

2.0 LOCATION

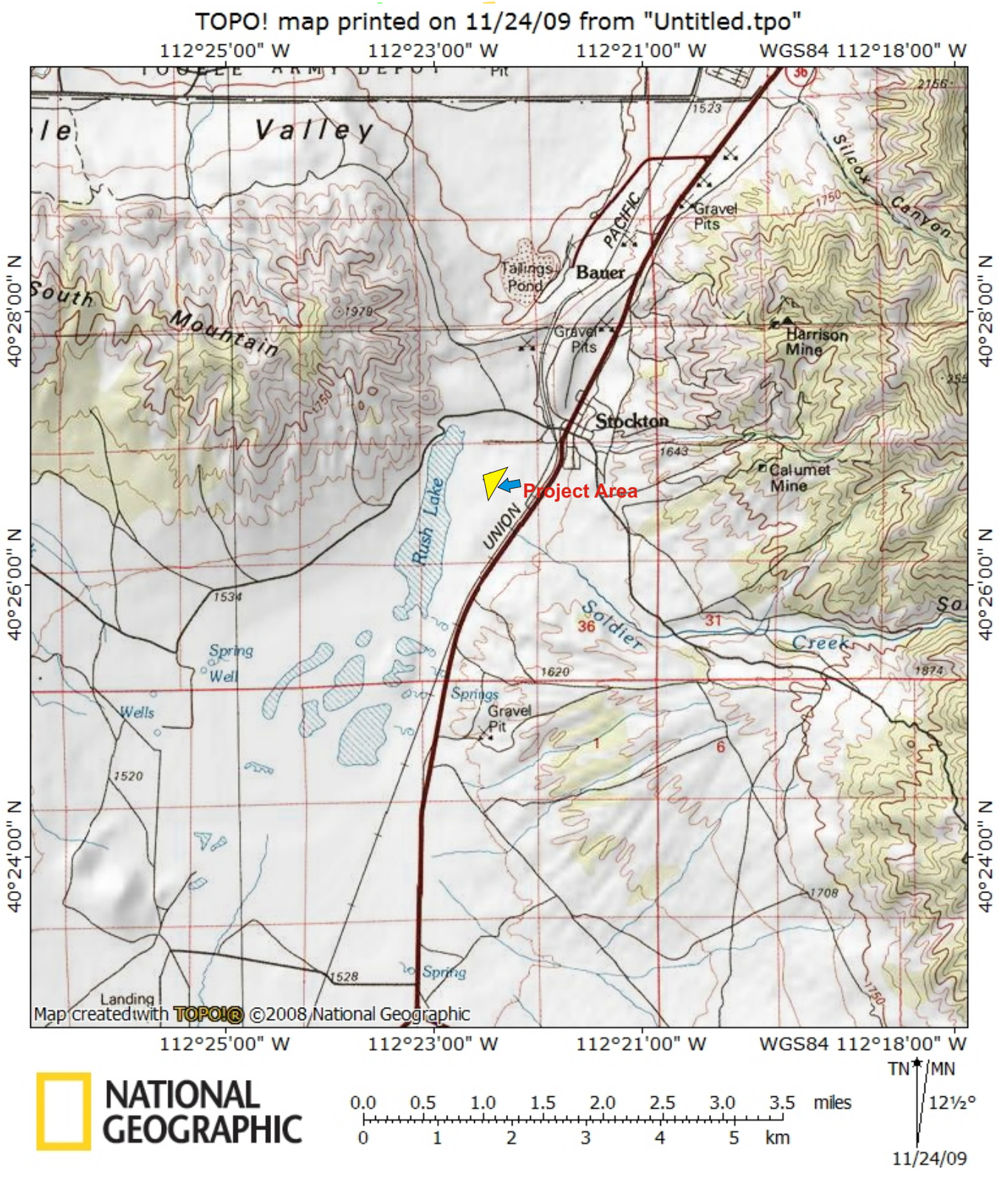
The project area is in the north-central portion of Utah, near Stockton, Utah. The project area is in the Tooele Valley just west of the Oquirrh Mountains. The triangular-shaped landfill is situated in the valley bottom about ¼-mile east of Rush Lake, within the NE¼ of Section 26, T4S R5W, on city lands (Figure 2). The landfill coordinates are noted below in Table 1. Access into the project is off of State Route 36 about 0.75 miles south of Stockton to an unpaved farm road. The landfill is located about ½-mile west of State Route 36. The project is contained on the Stockton, Utah 7.5 minute USGS quadrangle map.

Table 1. UTM Coordinates of Project Location

NW corner	383467mE	4478180mN
SW corner	383392me	4477903mN
NE corner	383724mE	4478114mN

3.0 ENVIRONMENTAL SETTING

The project area is located in the eastern edge of Tooele Valley. To the west of the project are first Rush Lake, and then South Mountain. East of the project area are the Oquirrh Mountains. The project location is situated along the lower portion of an alluvial fan, on the west side of the Oquirrh Mountains. The surface slope of the alluvial fan is about 5 to 10 percent, at an elevation of approximately 5,000 feet (amsl). While the subject property contains no seeps or springs, scattered springs are present about 0.8-mile to the east, along the base of the slopes. The parcel appears to have been cultivated and contains primarily weeds and grasses. Soils on the subject project consist of very deep soils formed from alluvium derived from igneous and sedimentary rocks which are typically found on alluvial fans and were observed to contain gravels and cobbles scattered throughout.



EarthTouch, Inc.
3135 North Fairfield Road
Layton, Utah 84041
Tel: 801.771.2800
Fax: 801.771.2838

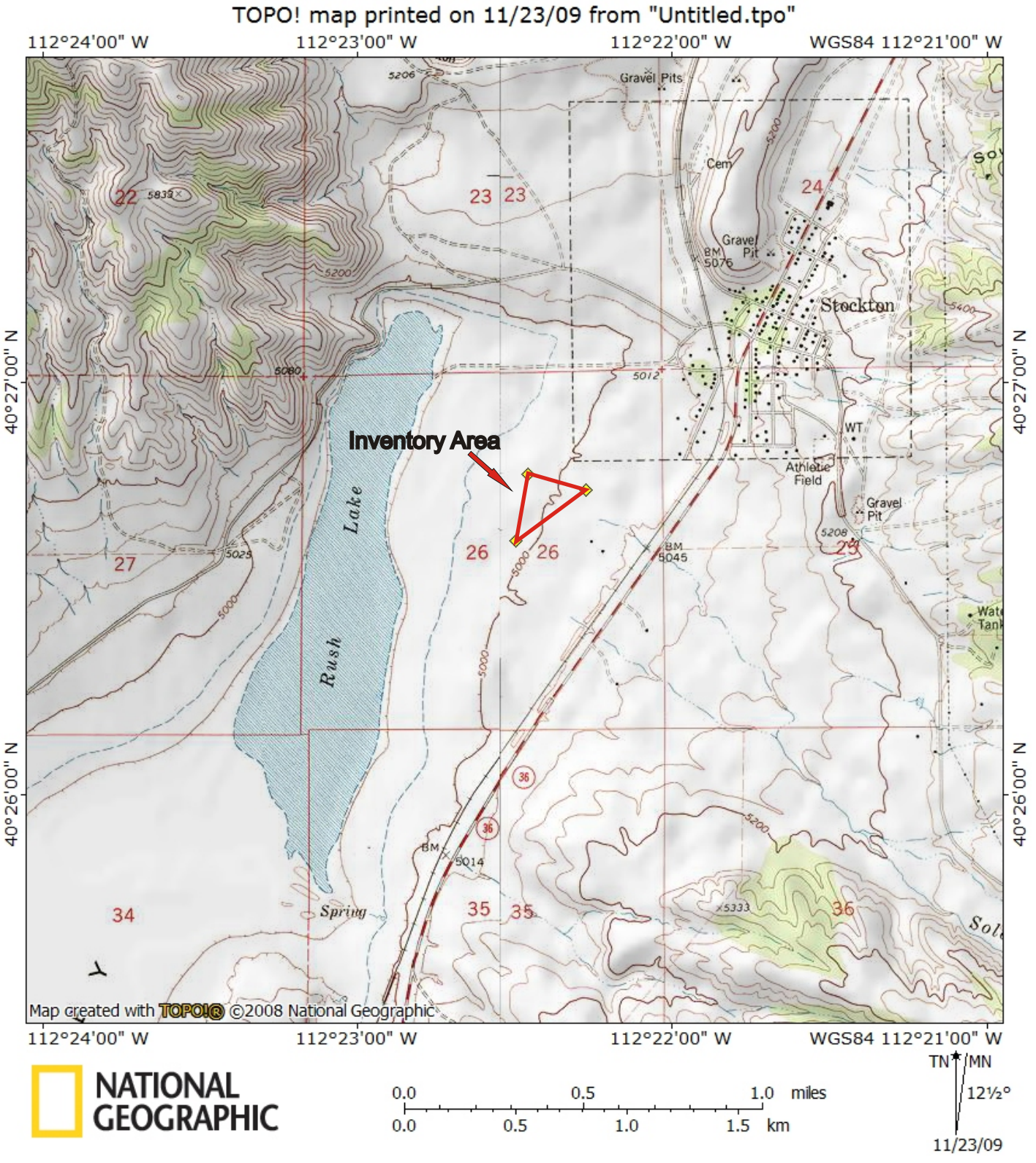
Figure 1

General Project Area

Stockton Landfill

Project: AECI-002 / Stockton Landfill

Source: USGS 100,000-minute map



EarthTouch, Inc.
3135 N Fairfield Rd, Ste D
Layton, Utah 84041
Tel: 801.771.2800

Figure 2

Project Map and Class I Projects

Stockton Landfill

Project: AECI-002-UT / Stockton Landfill

USGS 7.5 min Quad: Stockton, UT (1989)

4.0 PREVIOUS RESEARCH

A literature review (Class I file search) was conducted at the Utah Division of State History via the ArcGIS website on 19 November 2009, by EarthTouch personnel. A few previous cultural resource inventories have been conducted in the surrounding area, but none have encompassed the current project location. The projects include a pipeline, a large block of land, a transmission line, and a fiber optic line. All are at least ¼-mile from the proposed landfill. Table 2 contains the previous inventory information. A single site was noted about ¼-mile south of the proposed landfill but it is ineligible for inclusion on the National Register.

Table 2. List of previous inventories within ½ mile

Project Number	Inventory
U77BL0038	UTA Transmission Line
U77BL0046	Herbert Watkins UTA
U90NP0558	Mt Fuel Pipeline Tooele Depot to South Depot
U98BS0768	Salt Lake to Lynndyl Fiberoptic line

5.0 INVENTORY METHODS

The Class III pedestrian inventory was completed on the proposed landfill property by an archaeologist examining the area by completing 15-meter wide transects or less in some cases. A triangular area measuring roughly 1,100- by 1,100- by 1,250-ft was inventoried (Appendix A Photographs). The project location was initially staked at the three main points with the use of a GPS unit. The inventory covered approximately 13.9 acres. The project location was delineated during the inventory utilizing a GPS unit to transfer and plot the area for the report maps. Access into the project location is from an existing farm road intersecting the east side of the parcel.

6.0 INVENTORY RESULTS

No cultural resource sites were encountered during the Class III pedestrian inventory of the proposed project location.

7.0 SUMMARY AND CONCLUSIONS

EarthTouch, Inc. has conducted a cultural resource inventory of the proposed landfill. The project area is situated about ½-mile southwest of Stockton, Utah. The proposed project is on city administered lands. The inventory for the landfill location covered roughly 13.9 acres. The record search indicated that several previous inventories were conducted near the landfill but none encompassed the project area. No cultural resource sites were identified during the Class III pedestrian inventory for the proposed landfill. The project will have no effect on any known cultural resource sites.

APPENDIX A – PROJECT AREA PHOTOGRAPHS

Anderson Engineering Company Inc.
Stockton Landfill
Stockton, Utah

Photograph 1

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: Overview towards the access route associated with the proposed project from along State Route (SR) 36.

View: Northwest

Photograph 2

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: Overview towards the access route associated with the proposed project.

View: Northwest

Photograph 3

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: Overview towards the access route associated with the proposed project (left of the fork).

View: Northwest

Anderson Engineering Company Inc.
Stockton Landfill
Stockton, Utah

Photograph 4

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: Overview towards the proposed project location from along the proposed access route.

View: Northwest

Photograph 5

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the northwestern corner of the planned project towards the project location.

View: Southeasterly

Photograph 6

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the northwestern corner of the planned project towards the project location.

View: Southerly

Anderson Engineering Company Inc.
Stockton Landfill
Stockton, Utah

Photograph 7

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the northeastern corner of the planned project towards the southern section of the project location.

View: Southwesterly

Photograph 8

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the northeastern corner of the planned project towards the central section of the project location.

View: Westerly

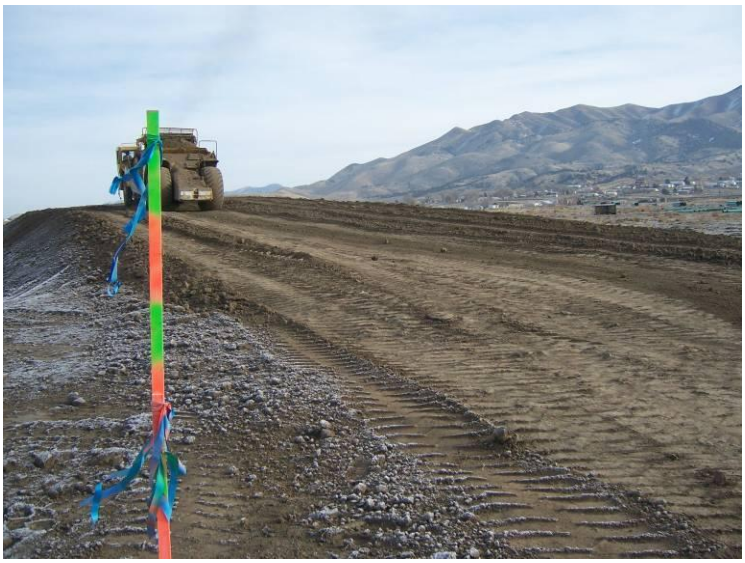
Photograph 9

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the southern corner of the planned project towards the project location.

View: Northeasterly



Anderson Engineering Company Inc.
Stockton Landfill
Stockton, Utah

Photograph 10

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View from the northern portion of the planned project area towards the southern section of the project location.

View: Southwesterly

Photograph 11

Project: Stockton Landfill
AECI-002-UT

Location: ½-mile southwest of Stockton
Stockton, Utah 84074

Description: View of the northern portion of the proposed project location. Note the residential development to the north.

View: Northerly

Stockton Class IIIb Landfill

Appendix C

Public Notification

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Barbara Macpeek
1870 N. 400 W.
Layton, UT 84041

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0004 Owned by Larry E. Vancamp

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Buddy Smith
PO Box 15
415 W. Walk St.
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0005 Owned by Buddy & Brenda Smith

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Richard Metzger
PO Box 301
395 W. Walk St.
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0006 Owned by Richard & Wendy Metzger

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Darin Tall
PO Box 8
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0007 Owned by Darin & Sherri Tall

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Synethia Kinsman
PO Box 258
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0008 Owned by Tommy & Synethia Kinsman

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Cheryl Prawl
PO Box 294
335 W. Walk St.
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0009 Owned by: Cheryl Lynn Prawl (trustee)
Lewis Paul Klason (trustee)

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

ANDERSON
ENGINEERING COMPANY INC.

Civil Engineering
Environmental Consulting
Land Surveying

December 2, 2009

Kim Allred
PO Box 204
315 W. Walk St.
Stockton, UT 84071

RE: Proposed Stockton Landfill Notice of Intent
Stockton, Utah
Parcel No. 11-079-0-0010 Owned by Kim & Dana Allred

Dear Property Owner,

A new sewer system for the town of Stockton is being installed. It is proposed to permit and construct a landfill cell for the purpose of disposing of excess soil containing non-hazardous concentrations of lead, resulting from the excavation of the trenches. The landfill facility will be approximately 9 acres in size and will be located adjacent to the new wastewater treatment lagoons to be constructed southwest of Stockton. The top surface of the waste cell will be approximately 3 feet above the natural ground surface, and when full, will be capped with 2 feet of clean soil and vegetated.

This letter serves as your notification of the intent that a permit application is being prepared and will be submitted to the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste for review.

Please call either Steve Anderson or me at (801) 972-6222 with any questions regarding this landfill.

Sincerely,
ANDERSON Engineering Co., Inc.

Kevin B. Cosper, P.E.
Senior Engineer

Reviewed by,

Steven D. Anderson, P.E.
Principal

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Total Postage & Fees	$ $3.24	12/03/2009

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Restricted Delivery Fee (Endorsement Required)	$0.00	DEC 2009
Total Postage & Fees	$ $3.24	12/03/2009

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Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $3.24	12/03/2009

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Stockton Class IIIb Landfill

Appendix D

Log Forms

Stockton Class IIIb Landfill
Waste Acceptance Log

Date	Operator Name	Size of Load (CY)	Concentration of Lead (ppm)	Notes

Stockton Class IIIb Landfill
Inspection Form

Date	Operator Name	Inspect for erosion, vegetation growth condition (post-closure), or other issues which may result in risk to human health or the environment.	Signature

Stockton Class IIIb Landfill

Appendix E

Training and Safety Plan

STOCKTON CLASS IIIB LANDFILL
LANDFILL OPERATORS GENERAL TRAINING AND SAFETY PLAN

1.0 PURPOSE AND SCOPE

This plan was developed for the operators of the Stockton Class IIIb Landfill to ensure proper operation of the landfill and the safety of the operator and general public in accordance with Utah Department of Environmental Quality Administrative Code R315-202-2(2)(o).

2.0 APPLICABILITY

All operators must receive training prior to assuming responsibility for landfill operation.

3.0 FREQUENCY

All applicable employees will receive training annually, or if significant changes occur at landfill.

4.0 LANDFILL OPERATIONS TRAINING TOPICS

Training shall cover the following topics.

4.1 Accepted Waste Guidelines

The Stockton Class IIIb Landfill accepts only lead-contaminated soil resulting from sewer installation trenching and other excavations within the Town of Stockton which encounter contaminated soil. Incidental debris such as sewer pipe which is removed as part of the new sewer installation may also be placed in the landfill. No municipal, household, or construction/demolition waste shall be accepted.

Waste brought to the landfill must be accompanied by analytical results which show the concentration of lead. Only non-hazardous soil having a TCLP lead concentration less than the toxicity characteristic limit of 5 mg/L (hazardous waste limit) will be allowed into the landfill. Guidelines have been established in the permit application to be able to use the criteria of total lead concentrations or XRF lead values. Soil having lead concentrations less than 3,000 mg/kg (laboratory testing) or 2,250 ppm (XRF testing) will be allowed in the landfill. Waste brought to the landfill must be accompanied by analytical results which show the total (or XRF) concentration of lead.

4.2 Waste Placement

After verifying that the concentration of lead is within the guidelines set forth in Section 4.1 of this Training Plan, the soil may be deposited at the base of the gravel track-in ramp. Dump trucks are not to drive into the landfill cell to dump their loads of soil. A dozer or backhoe with front end loader bucket will be used

to spread the soil loads and compact (wheel or track compacted). Soil is to be spread and compacted at a minimum of once per week.

Daily cover is not required, unless the load contains fine materials that have a high potential to develop fugitive dust which would pose a risk to downwind residences. In order to prohibit fugitive dust, such soils may require a 6 inch cover at the end of the working day in which they are received.

A six-inch earthen cover shall be provided at least once each month for wastes received at the landfill. Cover material shall consist of native soils derived from the construction of the landfill cell and stockpiled to the side of the cell.

A waste acceptance log is to be kept of all waste loads disposed of in the landfill. A copy of the log form is attached. The information for each load includes: date, operator name, size of load (cubic yards), lead concentration of the load, and any notes regarding the load.

4.3 Inspections

The landfill is to be inspected at least once every three months, and after any major storm event (greater than a 25 year 24 hour storm). The inspection should look at the overall condition of the landfill, and to particularly check for any damage to the berms or drainage swales. Each inspection must be recorded on the inspection form (a copy is attached). Information includes: date, operator name, inspection observations, and signature of inspector.

4.4 Excluded Waste

The landfill operator is to inspect each load entering the landfill to ensure the load does not contain any excluded waste, including the following: household garbage waste, construction and demolition waste, and any soil with concentrations exceeding the limits set forth in Section 4.1 of this plan.

4.5 Record Keeping and Reporting

The waste acceptance log and the inspection logs are to be kept on file for a period of three years. An annual report must also be prepared and submitted to the Executive Secretary by March 1 of each year which includes the following information:

- The name and address of the facility.
- The calendar year covered by the report.
- Annual quantity, in cubic yard, of solid waste received.
- The annual update of the required financial assurances mechanism pursuant to Subsection R315-309-2(2).
- Training programs or procedures completed
- Verification that sufficient soil is stockpiled to be used as cover and final cap material.

5.0 LANDFILL SAFETY TOPICS

Landfill operators are to be safe while operating equipment at the landfill facility. They are to be task trained for the piece of equipment they are responsible to operate. Safety topics during training may include: vehicle and equipment safety, slips and trips, pinch points, proper personal protective equipment, and emergency procedures.

6.0 EMERGENCY PROCEDURES

In the case of an emergency the landfill operator is to call 911 if necessary, then the landfill owner representative.

Stockton Class IIIb Landfill
Waste Acceptance Log

Date	Operator Name	Size of Load (CY)	Concentration of Lead (ppm)	Notes

Stockton Class IIIb Landfill
Inspection Form

Date	Operator Name	Inspect for erosion, vegetation growth condition (post-closure), or other issues which may result in risk to human health or the environment.	Signature

Stockton Class IIIb Landfill

Appendix F

Closure and Post-Closure Plans

STOCKTON CLASS IIIB LANDFILL
CLOSURE AND POST-CLOSURE PLANS

1.0 SCOPE OF CLOSURE PLAN

This Closure Plan is intended to comply with R315-302-3. The landfill is required to be closed in a way to minimize the need for further maintenance and to minimize future risk to human health or the environment. The closure is also intended to prepare the landfill for the post closure period.

2.0 CLOSURE PROCEDURE

2.1 Closure Schedule

The landfill owner (owner) shall notify the Executive Secretary of the intent to implement closure plan when the landfill waste is within 6 inches of reaching the design capacity elevation.

Within 30 days of attaining the final elevation, final closure will commence, and will be completed within 180 days.

No more than 60 days after closure, the owner shall submit plats and a statement of fact concerning the location of the disposal site to the county recorder, and shall submit proof of record of title filing to the Executive Secretary.

2.2 Final Cover Design

The final cover design shall consist of 18 inches of clean soil (set aside from the original excavation of the cell), overlain by 6 inches of topsoil. The surface of the cover shall be graded smooth, with a designed slope between 2% and 3% (following the natural contours of the native ground). The sides of the cell berms shall have a slope of 3 horizontal:1 vertical. The surface of the cover shall be seeded with native vegetation (using a suggested seed mixture for that area of Tooele County) at the rate of 20 lbs PLS/acre.

2.2.2 Run-On Run-Off Control

The constructed berm around the waste cell will prohibit surface water run-on into the cell. Within the cell, waste will be graded as it is received in order to promote evaporation and inhibit ponding as much as possible.

Run-off from the outside of the berms shall be diverted away from the landfill cell and routed via drainage swales into the ditch surrounding the wastewater treatment lagoon site.

2.2.3 Erosion Control

The surface of the cover shall be graded to promote drainage while minimizing erosion potential. Erosion shall be controlled by grading the top slopes to between 2% and 3% and side slopes to a maximum 3:1. The final surface shall be seeded with native vegetation to help prohibit wind or water erosion. The final surface shall be seeded with native vegetation to help prohibit wind or water erosion. The following seed will be planted at the rate of 20 lbs/acre:

- Crested wheatgrass (40%)
- Smooth brome (50 %)
- Russian wildrye (5 %)
- Yellow clover (5%).

3.0 POST CLOSURE CARE

Post-closure care, including inspections and necessary maintenance shall be on going for a period of 30 years, or as long as Executive Secretary determines is necessary for the facility to become stabilized and protect human health and the environment.

There is no planned future use of the property after closure. The facility is located adjacent to the wastewater treatment system lagoons for the Town of Stockton. The facility shall remain fenced and locked after closure.

3.1 Post-Closure Inspections

During the post-closure period, the closed landfill facility will be inspected bi-annually to assess the stability of the closure features (slope stability, vegetation growth, etc.). The inspector is required to fill out an inspection form after each inspection. A copy of the inspection form is attached.

3.2 Post Closure Maintenance

Maintenance will be performed as necessary to correct for erosion, or other issues which are seen as a potential risk to human health or the environment. Anticipated maintenance will likely include minor grading to repair erosion rills, and reseeding small areas.

4.0 PROJECTED CLOSURE/POST-CLOSURE COSTS

The estimated closure and post-closure costs are presented in the following table.

Table 1
Estimated Closure and Post-Closure Costs

Closure				
Task	**Quantity**	**Units**	**Unit Cost**	**Task Cost**
Place and grade 18 inch cover soil	1,500	CY	$5	$7,500
Place and grade 6 inch topsoil	500	CY	$5	$2,500
Vegetation seeding	0.8	Acre	$1000	$800
			Closure Cost	**$10,800**
Post-Closure (30 yr)				
Task	**Quantity**	**Units**	**Unit Cost**	**Task Cost**
Inspection (per event)	8	Hr	$40	$320
			Post-Closure Inspection Cost (2 inspections/year x 30 years)	**$19,200**
Maintenance Contingency	1	LS	$10,000	**$10,000**
			Total Estimated Closure and Post-Closure Costs	**$40,000**

5.0 FINANCIAL ASSURANCE

It is proposed to use the mechanism of a Trust Fund, consisting of a Public Treasurer's Investment Fund (PTIF) account with the Utah State Treasurer's Office. The financial assurance shall be updated yearly as part of the required annual report for the facility.

Stockton Class IIIb Landfill
Inspection Form

Date	Operator Name	Inspect for erosion, vegetation growth condition (post-closure), or other issues which may result in risk to human health or the environment.	Signature

Stockton Class IIIb Landfill

Appendix G

Data from Classification of Metal Contaminated Soil Document

Table G-1
Data For Stockton Soils
Comparison of Laboratory Total (mg/kg), Laboratory TCLP (mg/L), and XRF (ppm)

Total Pb (mg/kg)	TCLP (mg/L)	Ratio Pb TCLP /Total	Calculated Total Pb at 5.0 mg/L TCLP	XRF (ppm)	Ratio Pb XRF / Total
1,200	0.15	0.013%	40,000	1,743	145%
860	0.16	0.019%	26,875	836	97%
1,200	0.22	0.018%	27,273	1,538	128%
1,000	0.22	0.022%	22,727	1,237	124%
2,500	0.23	0.009%	54,348	1,840	74%
1,400	0.24	0.017%	29,167	1,313	94%
1,500	0.28	0.019%	26,786	1,427	95%
2,300	0.28	0.012%	41,071	1,607	70%
800	0.31	0.039%	12,903	374	47%
1,400	0.33	0.024%	21,212	1,051	75%
1,100	0.35	0.032%	15,714	1,313	119%
1,800	0.39	0.022%	23,077	1,589	88%
2,000	0.43	0.022%	23,256	2,063	103%
1,200	0.52	0.043%	11,538	886	74%
1,700	0.70	0.041%	12,143	1,953	115%
7,800	0.85	0.011%	45,882	1,960	25%
3,400	1.00	0.029%	17,000	2,970	87%
4,400	1.50	0.034%	14,667	1,413	32%
3,000	1.60	0.053%	9,375	2,427	81%
6,800	1.60	0.024%	21,250	8,766	129%
6,100	2.40	0.039%	12,708	3,246	53%
2,400	2.94	0.123%	4,082	2,276	95%
4,000	3.20	0.080%	6,250	2,374	59%
7,600	5.50	0.072%	6,909	2,996	39%
1,000	5.50	0.550%	909	513	51%
8,400	7.90	0.094%	5,316	2,553	30%
8,830	22.00	0.249%	2,007	3,051	35%

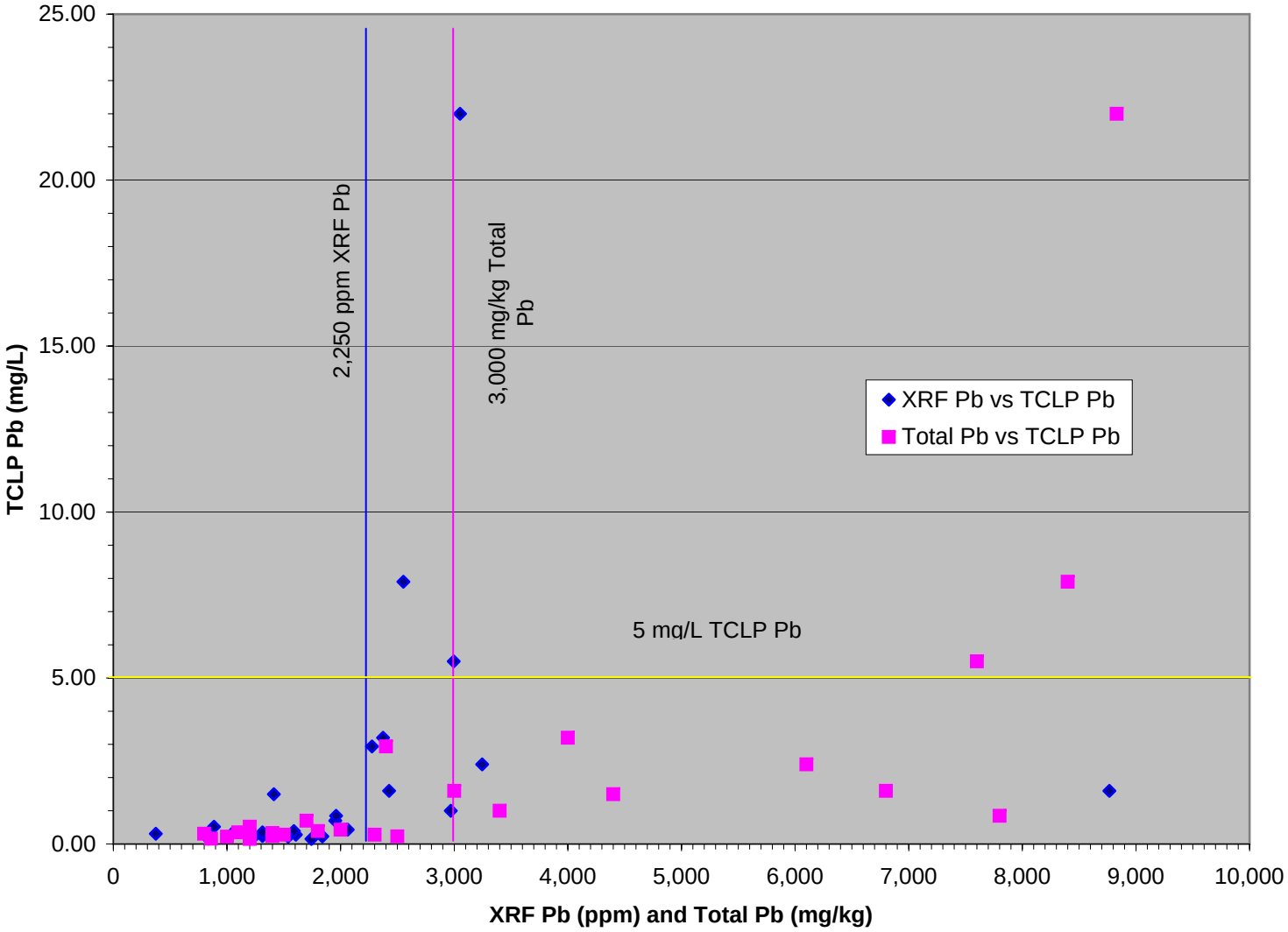
1.) The source of the data is: Pacificorp, 2004, Classification of Metal Contaminated Soil, Town of Stockton – OU1, as a Bevill Waste

2.) The mean of the ratio between the TCLP lead concentration and the total lead concentration is 0.063%. The standard deviation is 0.109%. A 95% condidence interval is determined as the mean plus 1.96 x the standard deviation. The 95% confidence interval cutoff would be 0.277%. Using this criteria, the value of 0.550% would not be used and therefore is not included in the graph shown as Figure G1.

3.) The average ratio of XRF Pb to Total Pb is 81%. The criteria used for the project will be 75%.

4.) The average calculated total Pb corresponding to 5 mg/L TCLP Pb is 20,521 mg/kg. The criteria used for the project will be 3,000 mg/kg total Pb.

Figure G1
Total Pb and XRF Pb vs TCLP Pb



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ENGINEERING COMPANY INC.

Table G-2
Data For Stockton Soils
Comparison of Laboratory Total (mg/kg) and Laboratory TCLP (mg/L)

Total Pb (mg/kg)	TCLP (mg/L)	Ratio Pb TCLP /Total	Calculated Total Pb at 5.0 mg/L TCLP
1,100	0.06	0.005%	91,667
910	0.13	0.014%	35,000
1,300	0.15	0.012%	43,333
750	0.16	0.021%	23,438
961	0.20	0.021%	24,025
1,810	0.20	0.011%	45,250
1,940	0.20	0.010%	48,500
6,500	0.20	0.003%	162,500
15,000	0.20	0.001%	375,000
1,000	0.22	0.022%	22,727
2,700	0.23	0.009%	58,696
1,400	0.24	0.017%	29,167
1,500	0.24	0.016%	31,250
2,500	0.28	0.011%	44,643
3,200	0.28	0.009%	57,143
2,050	0.30	0.015%	34,167
2,200	0.30	0.014%	36,667
840	0.31	0.037%	13,548
700	0.32	0.046%	10,938
980	0.33	0.034%	14,848
1,500	0.33	0.022%	22,727
1,200	0.35	0.029%	17,143
1,800	0.39	0.022%	23,077
1,700	0.40	0.024%	21,250
6,790	0.40	0.006%	84,875
15,300	0.40	0.003%	191,250
1,900	0.43	0.023%	22,093
2,100	0.43	0.020%	24,419
1,090	0.50	0.046%	10,900
1,200	0.52	0.043%	11,538
1,600	0.60	0.038%	13,333
2,140	0.60	0.028%	17,833
7,730	0.60	0.008%	64,417
2,300	0.67	0.029%	17,164
1,800	0.70	0.039%	12,857
2,380	0.70	0.029%	17,000
1,400	0.80	0.057%	8,750
2,400	0.80	0.033%	15,000
5,320	0.80	0.015%	33,250
4,200	0.85	0.020%	24,706
1,850	0.90	0.049%	10,278
3,010	0.90	0.030%	16,722
4,350	0.90	0.021%	24,167
4,500	0.90	0.020%	25,000
15,200	0.90	0.006%	84,444
3,000	1.00	0.033%	15,000
6,580	1.10	0.017%	29,909
4,760	1.20	0.025%	19,833
1,210	1.21	0.100%	5,000
8,360	1.30	0.016%	32,154
693	1.38	0.199%	2,511
4,500	1.50	0.033%	15,000
4,000	1.60	0.040%	12,500
7,500	1.60	0.021%	23,438
12,000	1.60	0.013%	37,500

Table G-2
Data For Stockton Soils
Comparison of Laboratory Total (mg/kg) and Laboratory TCLP (mg/L)

Total Pb (mg/kg)	TCLP (mg/L)	Ratio Pb TCLP /Total	Calculated Total Pb at 5.0 mg/L TCLP
4,690	1.70	0.036%	13,794
11,800	1.70	0.014%	34,706
2,150	2.20	0.102%	4,886
7,140	2.20	0.031%	16,227
8,200	2.40	0.029%	17,083
533	2.44	0.458%	1,092
1,260	2.70	0.214%	2,333
7,100	2.90	0.041%	12,241
10,200	3.00	0.029%	17,000
4,000	3.20	0.080%	6,250
13,900	3.20	0.023%	21,719
1,750	3.25	0.186%	2,692
6,300	3.30	0.052%	9,545
10,400	3.30	0.032%	15,758
7,800	3.50	0.045%	11,143
6,700	3.80	0.057%	8,816
9,900	3.80	0.038%	13,026
34,000	4.60	0.014%	36,957
9,500	5.50	0.058%	8,636
11,000	5.50	0.050%	10,000
17,000	5.50	0.032%	15,455
18,700	6.30	0.034%	14,841
19,600	6.30	0.032%	15,556
13,000	6.60	0.051%	9,848
12,000	7.54	0.063%	7,958
13,000	7.90	0.061%	8,228
19,000	9.10	0.048%	10,440
6,000	9.93	0.166%	3,021
6,100	12.00	0.197%	2,542
15,500	12.00	0.077%	6,458
24,800	12.00	0.048%	10,333
24,200	13.00	0.054%	9,308
12,000	14.00	0.117%	4,286
30,800	14.00	0.045%	11,000
26,800	15.00	0.056%	8,933
30,600	16.00	0.052%	9,563
12,000	22.00	0.183%	2,727
55,900	22.00	0.039%	12,705
60,100	26.00	0.043%	11,558
60,100	26.00	0.043%	11,558
64,500	33.00	0.051%	9,773
28,400	45.00	0.158%	3,156
44,800	77.00	0.172%	2,909

1.) The source of the data is: Pacificorp, 2004, Classification of Metal Contaminated Soil, Town of Stockton – OU1, as a Bevill Waste

2.) The average calculated total Pb corresponding to 5 mg/L TCLP Pb is 27,302 mg/kg. The criteria used for the project will be 3,000 mg/kg total Pb.

Figure G2
Total Pb vs TCLP Pb