2702 South 1030 West, Suite 10, Salt Lake City, Utah 84119
Ph: 801.270.9400 Fax: 801.270.9401

TRANSMITTAL

DSHW-2021-010302

TO:	Doug Hansen Utah Division of Waste Management and Radiation Control 195 North 1950 West Salt Lake City, Utah 84116	DATE: 7/14/21 IGES JOB #: 03673 SENT VIA: Email

We are sending you the following:

Copies	Date	Description
1	7/16/21	Purgatory Landfill, Washington, UT – Permit Renewal

x	For approval		Approved as submitted		Resubmit		Copies for approval
	For your use		Approved as noted		Submit		Copies for distribution
	As requested		Returned for corrections		Return		Corrected prints
	For your review and comment		Other				

Remarks:
Attached is the repermit application for the Purgatory Class VI Landfill near Washington, UT.
Please let me know if you or your staff have any questions or comments regarding the material in this submittal.

SIGNED:

APPLICATION TO REPERMIT AND OPERATE A CLASS VI LANDFILL

Purgatory Landfill

Submitted by:

ONP L.L.C.

Prepared by

IGES, INC.

2702 South 1030 West, Suite 10

Salt Lake City, Utah 84107

July 16, 2021

ANNOTATED TABLE OF CONTENTS

Part **Title**

Introduction

Includes summary of permit with technical and operational issues highlighted

I. General Information

Includes State of Utah Solid Waste Permit Application forms

II. General Report

Includes information required by Utah Administrative Rule R315-305

III. Technical Report

Includes information required by Utah Administrative Rule R315-305

APPENDICES

APPENDIX A – Drawings
APPENDIX B – Legal Description
APPENDIX C – Landfill Forms
APPENDIX D – Landfill Life
APPENDIX E – Financial Assurance

INTRODUCTION

This document presents an application to repermit and operate a Class VI Construction and Demolition (C&D) landfill in Washington County on land owned by ONP, LLC and operated by ONP, LLC personnel. The proposed Class VI landfill (Landfill) is located southwest of the existing Washington County Class I landfill.

The area to be permitted is in Section 17, Township 42 South, Range 14 West, Salt Lake Baseline and Meridian, Washington County, Utah. Drawing 1 (Appendix A) shows the location of the proposed landfill.

Part I of this document duplicates the standard form outlining General Information pertaining to the site. Part II is a General Report that includes a facility description and landfill operations plan. Part III is the Technical Report and includes details on the design of the site closure, post-closure care and financial assurance.

APPLICATION TO PERMIT AND OPERATE A CLASS VI LANDFILL

Purgatory Landfill

PART I – GENERAL INFORMATION

Utah Class IV and VI Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

I. Landfill Type	☐ Class IVa ☐ Class IVb ☒ Class VI	**II. Application Type**	☐ New Application ☒ Facility Expansion ☒ Renewal Application ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number 0404

III. Facility Name and Location

Legal Name of Facility
Purgatory Landfill

Site Address (street or directions to site) 105 N. Landfill Road				County Washington	
City Washington			Zip Code 84780	Telephone 435 673-5610	
Township 42	Range 14	Section(s) 17	Quarter/Quarter Section	Quarter Section	
Main Gate Latitude degrees 37	minutes 7	seconds 52	Longitude degrees 113	minutes 27	seconds 14

IV. Facility Owner(s) Information

Legal Name of Facility Owner
ONP. LLC

Address (mailing)
105 N Landfill Rd

City Washington	State UT	Zip Code 84780	Telephone 435 673-5610

V. Facility Operator(s) Information

Legal Name of Facility Operator
ONP, LLC

Address (mailing)
105 N Landfill Rd

City St. George	State UT	Zip Code 84780	Telephone 435 673-5610

VI. Property Owner(s) Information

Legal Name of Property Owner
ONP, LLC

Address (mailing)
105 N Landfill Rd

City St. George	State UT	Zip Code 84780	Telephone 435 673-5610

VII. Contact Information

Owner Contact Stacey Hughes		Title President	
Address (mailing) 605 N 1300 E			
City St. George	State UT	Zip Code 84770	Telephone 435 673-5610
Email Address dixiewaste@infowest.com		Alternative Telephone (cell or other)	435-619-2506
Operator Contact Nathan Barrow		Title Landfill Supervisor	
Address (mailing) 105 N Landfill Rd			
City Washington	State UT	Zip Code 84780	Telephone 435-703-4742
Email Address dixiewaste77@gmail.com		Alternative Telephone (cell or other)	435-277-0317
Property Owner Contact Stacey Hughes		Title President	
Address (mailing) 105 N Landfill Rd			
City Washington	State UT	Zip Code 84780	Telephone 435-673-5610
Email Address dixiewaste@infowest.com		Alternative Telephone (cell or other)	435-619-2506

Utah Class IV and VI Landfill Permit Application Form

Part I General Information (Continued)

VIII. Waste Types (check all that apply)

☐ Landfill will accept all wastes allowed in Class IV or VI landfills **Or** landfill will accept only the following wastes

Waste Type	Combined Disposal Unit	Monofill Unit
☒ Construction & Demolition	☐	☐
☐ Tires	☐	☐
☒ Yard Waste	☐	☐
☐ Animals	☐	☐
☐ Contaminated Soil	☐	☐
☐ Other _____	☐	☐

Note: Disposal of dead animals must be approved by the Executive Secretary

IX. Facility Area

Facility Area	57	acres
Disposal Area	42	acres
Design Capacity		
Years	26	
Cubic Yards	3,756,000	
Tons	1,799,281	

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

Class VI Special Requirements

☐ Documents required by UCA 19-6-108(9) and (10)

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

Signature of Authorized Owner Representative Stacey Hughes Name typed or printed	Title: Owner	Date: 7-16-21
	Address: 1377 W 4200 N. St George UT	
Signature of Authorized Land Owner Representative (if applicable) Stacey Hughes Name typed or printed	Title: Owner	Date: 7-16-21
	Address: "	"
Signature of Authorized Operator Representative (if applicable) Stacey Hughes Name typed or printed	Title: owner	Date: 7-16-21
	Address: "	"

Part II **Application Checklist**

I. **Facility General Information**	
Description of Item	Location In Document
Ia. General Information - All Facilities	
Completed Part I General information form above	Part I
General description of the facility (R315-310-3(1)(b))	Part II, Section 1
Legal description of property (R315-310-3(1)(c))	Appendix B
Proof of ownership, lease agreement, or other mechanism (R315-310-3(1)(c))	Appendix B
If the permit application is for a Class IV landfill, a demonstration that the landfill is not a commercial facility	Not Applicable
Waste type and anticipated daily volume (R315-310-3(1)(d))	Part II, Section 1.2 Part III, Section 2.3
Intended schedule of construction (R315-302-2(2)(a))	Part II, Section 3.1
Ib. General Information - New Or Laterally Expanding Facilities	
Documentation that the Historical Survey requirements of R315-302-1(2)(f) have been met (R315-305-4(1)(b)(vi))	Not Applicable
Name and address of all property owners within 1000 feet of the facility boundary (R315-310-3(2)(i))	Not Applicable
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))	Not Applicable
Name of the local government with jurisdiction over the facility site (R315-310-3(2)(iii))	Washington City
Ic. Location Standards - New Or Laterally Expanding Class IVa Landfills (R315-305-4(1)(a))	
Land use compatibility	
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	Not Applicable
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	Not Applicable
Maps showing the location of dwellings, residential areas, other structures, and historic structures.	Not Applicable
List of airports within five miles of facility and distance to each	Not Applicable
Geology	
Geologic maps showing significant geologic features, faults, and unstable areas	Not Applicable
Maps showing site soils	Not Applicable
Surface water	

Utah Class IV and VI Landfill Permit Application Checklist

I. **Facility General Information**	
Description of Item	Location In Document
Magnitude of 24 hour 25 year and 100 year storm events	Not Applicable
Average annual rainfall	Not Applicable
Maximum elevation of flood waters proximate to the facility	Not Applicable
Maximum elevation of flood water from 100 year flood for waters proximate to the facility	Not Applicable
Wetlands	Not Applicable
Ground water	Not Applicable
Id. Location Standards - New Or Laterally Expanding Class IVb and VI Landfills	
Floodplains as specified in R315-302-1(2)(c)(ii) (R315-305-4(1)(b)(i))	Not Applicable
Wetlands as specified in R315-302-1(2)(d) (R315-305-4(1)(b)(ii))	Not Applicable
The landfill is located so that the lowest level of waste is at least ten feet above the historical high level of ground water (R315-305-4(1)(b)(iii))	Not Applicable
Geology as specified in R315-302-1(2)(b)(i) and (iv) (R315-305-4(1)(b)(iv))	Not Applicable
Ie. Additional Location Standards - New Or Laterally Expanding Class IVb and VI Landfills Or Landfills Requesting That Dead Animals Be Added As A New Waste Stream (R315-305-4(1)(a)(v))	
Maps showing the existing land use, topography, residences, parks, monuments, recreation areas or wilderness areas within 1000 feet of the site boundary	Not Applicable
Certifications that no ecologically or scientifically significant areas or endangered species are present in site area	Not Applicable
Maps showing the location of dwellings, residential areas, other structures, and historic structures.	Not Applicable
List of airports within five miles of facility and distance to each	Not Applicable
If. Plan Of Operations - All Facilities (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))	Part II, Section 3
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))	Part II, Section 3 Appencix C
Contingency plans in the event of a fire or explosion (R315-302-2(2)(d))	Part II, Section 3
Plan to control fugitive dust generated from roads, construction, general operations, and covering the waste (R315-302-2(2)(g))	Part II, Section 3
Plan for litter control and collection (R315-302-2(2)(h))	Part II, Section 3

Utah Class IV and VI Landfill Permit Application Checklist

I. **Facility General Information**	
Description of Item	Location In Document
Procedures for excluding the receipt of prohibited hazardous or PCB containing waste (R315-302-2(2)(j))	Part II, Section 3
Procedures for controlling disease vectors (R315-302-2(2)(k))	Part II, Section 3
A plan for alternative waste handling (R315-302-2(2)(l))	Part II, Section 3
A general training plan for site operations (R315-302-2(2)(o))	Part II, Section 3
Any recycling programs planned at the facility (R315-303-4(6))	Part II, Section 3
Any other site specific information pertaining to the plan of operation required by the Executive Secretary (R315-302-2(2)(p))	Part II, Section 3
Ig. Additional Plan Of Operation Requirements - Class IVa Facilities	
Corrective action programs to be initiated if ground water is contaminated (R315-302-2(2)(e))	Not Applicable
***II* Facility Technical Information**	
IIa. Maps - All Facilities	
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))	Appendix A
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))	Appendix A
IIb. Geohydrological Assessment - Class IVa 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))	Not Applicable
Evaluation of bedrock and soil types and properties including permeability rates (R315-310-4(2)(b)(ii))	Not Applicable
Depth to ground water (R315-310-4(2)(b)(iii))	Not Applicable
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))	Not Applicable
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))	Not Applicable
Identification and description of all surface waters on-site and within one mile of the facility boundary (R315-310-4(2)(b)(vii))	Not Applicable
For an existing facility, identification of impacts upon the ground water and surface water from leachate discharges (R315-310-4(2)(b)(viii))	Not Applicable
Calculation of site water balance (R315-310-4(2)(b)(ix))	Not Applicable

Utah Class IV and VI Landfill Permit Application Checklist

I. **Facility General Information**	
Description of Item	Location In Document
IIc. Engineering Report, Plans, Specifications, And Calculations - All Facilities	
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) and R315-310-4(2)(c)(iii))	Appendix A
Design and location of run-on and run-off control systems (R315-310-4(2)(c)(viii))	Appendix A
Anticipated facility life and the basis for calculating the facility's life (R315-310-4(2)(c)(ii))	Appendix D
Engineering reports required to meet the location standards of R315-305-4 including documentation of any demonstration or exemption made for any location standard (R315-310-4(2)(c)(i))	Not Applicable
Identification of borrow sources for final cover (R315-310-4(2)(c)(iv))	Not Applicable
Run-off collection, 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))	Not Applicable
IId. Closure Requirements - All Facilities	
CLOSURE PLAN (R315-310-3(1)(h))	Part III, Section 2
Closure schedule (R315-310-4(2)(d)(i))	Part III, Section 2.1
Design of final cover (R315-310-4(2)(c)(iii))	Part III, Section 2.2
Capacity of site in volume and tonnage (R315-310-4(2)(d)(ii))	Appendix D
Final inspection by regulatory agencies (R315-310-4(2)(d)(iii))	Part III, Section 2.4
IIe. Post-Closure Requirements- All Facilities	
POST-CLOSURE CARE PLAN (R315-310-3(1)(h))	Part III, Section 3
Changes to record of title, land use, and zoning restrictions (R315-310-4(2)(e)(v))	Part III, Section 3.2
Maintenance activities to maintain cover and run-on/run-off control systems (R315-310-4(2)(e)(iii))	Part III, Section 3.3
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))	Part III, Section 3.4
IIf. Financial Assurance - All Facilities (R315-310-3(1)(j))	
Identification of closure costs including cost calculations (R315-310-4(2)(d)(iv))	Part III, Section 4
Identification of post-closure care costs including cost calculations (R315-310-4(2)(e)(iv))	Part III, Section 4
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))	Part III, Section 4

Utah Class IV and VI Landfill Permit Application Checklist

APPLICATION TO PERMIT AND OPERATE A CLASS VI LANDFILL

Purgatory Landfill

(ONP, LLC)

PART II - GENERAL REPORT

TABLE OF CONTENTS

1.0 - FACILITY DESCRIPTION

The Purgatory Landfill (Landfill) is located on land controlled by ONP, LLC and will be operated by ONP, LLC employees. The Landfill is located as indicated on Drawing 1 (Appendix A). The Landfill will be utilized exclusively for the disposal of construction and demolition (C&D) related waste and the collection and reuse of recyclable materials. The Landfill will function as a Class VI landfill in that it will be a commercial non-hazardous solid waste landfill that accepts Construction and Demolition waste (excludes the acceptance of waste from conditionally exempt small quantity generators). The Landfill is located approximately one-half mile southwest of the existing Washington County Landfill facility. The topography surrounding the Landfill is defined by a moderately steep ridge along the site's western boundary transitioning to a moderately sloping outwash plain towards the eastern boundary. Due to the slope of the site, all of the potential site run-on will be directed around the site with the flow directed towards the Virgin River.

The main access road to the site is paved for all-weather access. Access into the Landfill disposal area will be via an improved and maintained dirt road. The facility will be entirely fenced, with public access through the locking gate at the main entrance of the solid waste facility.

1.1 AREA SERVED

The Landfill will primarily serve the residents and businesses of Washington County with potential C&D wastes from the Mesquite area. The majority of the solid waste disposal within Washington County takes place at the Washington County Landfill. The Landfill will provide local haulers of C&D wastes a cost-effective alternative for the disposal of C&D and expanded opportunities for the reuse of construction derived materials.

1.2 WASTE TYPES

Based upon the existing C&D waste stream being transported by Dixie Waste and estimates of future trends; approximately 900 tons per month of C&D waste is expected to be delivered to the Landfill.

The waste diverted into the Landfill shall be limited to the following wastes:

- Yard Waste – brush, branches, clippings, leaves and grass.
- Construction Wastes – waste generated from construction and includes building materials used in construction. Construction related materials include packaging materials from products, waste lumber, wallboard, boxes from appliances, empty paint cans, empty caulking tubes, and empty sealer and adhesive cans. "EMPTY" means that no more than 10% of the product remains inside the container.
- Demolition Wastes – waste generated from the destruction or remodeling of buildings and houses. Demolition Wastes may include furnaces, pipes, ducting and water heaters. Furniture and other materials that are not part of the building structure must be removed before demolition.
- Untreated wood, including pallets and crates.
- Asphalt from roads and other surfaces.

Waste materials that are specifically prohibited from Class VI landfills include the following:

- Household Wastes (Municipal Solid Waste)
- Contaminated Soils
- Friable asbestos
- Tanks of any kind
- Railroad ties
- Cardboard not directly generated from construction or demolition activities
- Furniture of any kind
- Metal not directly generated from construction or demolition activities
- Electronics of any kind
- Treated lumber

1.3 FACILITY HOURS

The anticipated operating hours for the facility will be from 10:00 a.m. to 6:00 p.m. year round. The facility will be open Tuesday thru Saturday with the following holidays being observed:

- New Years Day
- Human Rights Day
- Presidents Day
- Memorial Day
- July 4th
- Pioneer Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving Day
- Christmas Day

The following facility information will be posted at the gate:

- Landfill Owner
- Days of Landfill Operation
- Hours of Landfill Operation
- Instructional Signs (no scavenging, no hazardous materials, dump in designated areas, etc.)
- Emergency Telephone Numbers

1.4 LANDFILL EQUIPMENT

The following equipment will be on site and utilized in landfill operations:

- Track Loader

1.5 LANDFILL PERSONNEL

The following briefly presents the responsibilities for the proposed landfill personnel:

Landfill Supervisor - The Supervisor will be responsible for all matters relating to the Solid Waste Program for the Landfill, including landfill operations and all recycling functions. The Supervisor will be responsible that the Landfill operations meet all Department of Solid and Hazardous Waste (DSHW) permit requirements. The Supervisor will conduct regular facility inspections and monitor all landfill activities. The Supervisor will be responsible for all operational documentation including the annual reports to DSHW. The Supervisor will be responsible for all persons on the site including visitors.

Landfill Technicians – The landfill technicians will be responsible for all day-to-day activities at the Landfill. These responsibilities will include, waste acceptance and placement, traffic control, visual inspection of incoming waste, random waste screening operations, and general construction as it pertains to landfill operations. The landfill technicians will serve as both equipment operators and gate attendants.

2.0 - LEGAL DESCRIPTION

A copy of the legal description is included on the survey drawing (Appendix B).

3.0 – OPERATIONS PLAN

The Operation Plan for the Landfill has been written to address the requirements of Utah State Solid Waste Regulations and describes the proposed operations at the facility.

The following section details the operational specifics of the Landfill. Forms used to document the operations of the Landfill are included in Appendix C.

3.1 SCHEDULE OF CONSTRUCTION

The construction and operation of the Landfill has been broken down into two Phases as indicated on Drawing 3 (Appendix A); Phase A will consist of the development and filling of the first three cells. Phase A will include all site development activities including water diversion structures and site support facilities. Soil excavated from Cell 1 will be utilized for the general site grading of the support area, creation of site access roads and water diversion and retaining structures. As Cell 1 begins accepting C& D wastes; Cell 2 will be excavated to provide cover soil for the Cell 1 operations. Excess excavated soils from Cell 2 will be stockpiled for use as final cover. Cell 3 will be developed in the same manner with excavated soils being utilized for operational cover or stockpiled for future use.

Phase B will be developed by excavating the Cell 4 area. Soils from Cell 4 will be utilized as final cover for the Phase A area. Excess soil from Cell 4 will be stockpiled for use in the final cover of the Phase B area. As Cell 4 begins to accept waste; Cell 5 will be excavated to provide operational cover soils. Cell 6 will be developed in the same manner with excavated soils being utilized for operation cover or stockpiled for future use. The Landfill will be constructed and commence operations following legislative approval.

The excavation depth of each Cell may vary due to the actual depth of soil overlying the bedrock. The excavated surface indicated on Drawing 3 (Appendix A) are approximate only

since the depth to bedrock will vary across the site. The actual depth of excavation for each Cell is not crucial in the design or operation of the facility as long as the minimum 2% bottom slope and maximum 3:1 side slopes are maintained.

The operation of the Landfill will be continual in nature, the Phased arrangement is more of a design concept rather than actual operational milestones. Based on the projected waste stream, Phase A will provide operational airspace for approximately 11 to 12 years, with design capacity being reached in 2031 or early 2032. Phase B will commence operation in approximately 2032 and last until approximately 2043. The landfill capacities are initially based upon reported waste acceptance of 30,000 tons per year (2018-2020) and escalating at 25% for an additional two years, then at 2% growth (mirroring current population growth) each year thereafter.

3.2 DESCRIPTION OF WASTE HANDLING PROCEDURES

3.2.1 General

The waste control program is designed to detect and deter attempts to dispose of hazardous, municipal solid waste or other unacceptable wastes at the Landfill. The program is designed to protect the health and safety of employees, customers, and the general public, as well as to protect against the contamination of the environment.

The Landfill will be open for public and private disposal. Signs will be posted at the Landfill access point to clearly indicate (1) the types of wastes that are accepted at the C&D facility; (2) the types of wastes not accepted at the site; and (3) the penalty for illegal disposal. The following waste handling procedure will be followed to minimize the potential for non C&D waste being incorporated in the Landfill:

- All vehicles delivering wastes to the site will be met at the gate by a Landfill Technician. The Landfill Technician will inquire as to the contents of each incoming load and enter the description of the vehicle and waste content into the Daily Log.
- The vehicle will be directed to the drop off facility (for recyclables), working face (for C&D), Washington County Landfill operations (for MSW), or rejected due to unacceptable materials.
- Any vehicle suspected of carrying unacceptable materials (liquid waste, sludges, or hazardous waste) will be prevented from entering the disposal areas unless the driver can provide evidence that the waste is acceptable for disposal at the site. ONP, LLC reserves the right to refuse service to any suspect load. Vehicles carrying unacceptable materials will be required to exit the site without discharging their loads.
- Loads will be regularly surveyed at the tipping area. If a discharged load contains inappropriate or unacceptable material, the discharger will be required to reload the material and remove it from the Landfill. If the discharger is not immediately identified, the area where the unacceptable material was discharged will be cordoned off. Unacceptable material will be moved to a designated area for identification and preparation for proper disposal.

No open burning or smoking will be allowed near the work face.

3.2.2 Waste Acceptance Records

A monthly summary of all landfill transactions will be created and kept on file at the Landfill or sent to the ONP, LLC offices for storage.

3.2.3 Waste Disposal

The geometry of the Landfill is such that the waste will be pushed upslope into place. The C&D wastes will be dumped at the toe of the work face when possible and spread up the slope in one- to two-foot lifts, keeping the slope at a typical five to one (horizontal to vertical) configuration.

Work face dimensions will be kept narrow enough to minimize blowing litter and reduce the amount of soil needed for cover.

Typically, the track loader will be operated with the bucket facing uphill. Equipment operations across the slope will be avoided to minimize the potential of equipment tipping over. In addition to safety concerns, a toe of slope to crest of slope working orientation provides the following benefits:

- Increases effective compaction.
- Increased visibility for waste placement and compaction.
- More uniform waste distribution.

The wastes will be compacted by making three to five passes up and down the slope. Compaction reduces litter, differential settlement, and the quantities of cover soil needed. Compaction also extends the life of the site, reduces unit costs, and leaves fewer voids to help reduce vector problems. Care will be taken that no holes will be left in the compacted waste. Voids will be filled with additional waste as they develop. Cover soils will be applied to all areas of the active cell at a minimum of every 30 days.

3.2.4 Special Wastes – Wastes Excluded from the Landfill

3.2.4.1 Used Oil and Batteries

Used Oil and Batteries will not be accepted at the Landfill.

3.2.4.2 Appliances

White goods will be accepted at the Landfill and be separated for recycling. All appliances containing refrigerants will be segregated in a separate area and stored until the refrigerant is removed. The appliances will be loaded into a metal bin for recycling. Used cars will not be accepted at the facility.

3.2.4.3 Tires

Tires will not be accepted at the Landfill.

3.2.4.4 Dead Animals

Dead animals will not be accepted at the Landfill.

3.2.4.5 Asbestos Waste

Asbestos waste will not be accepted at the Landfill.

3.2.4.6 Grease By-Products

Grease By-Product wastes will not be accepted at the Landfill.

3.2.4.7 Sewer Sludge

Sewer sludge of any kind (wet or dry) will not be accepted at the Landfill.

3.3 WASTE INSPECTION

3.3.1 Landfill Spotting

Learning to identify and exclude prohibited and hazardous waste from the Landfill is required to maintain the Class VI classification and necessary for the safe operation of the facility. The Landfill Technicians are required to receive initial and periodic hazardous waste screening inspection training. Waste screening certificates of the training received will be kept in the personnel files.

3.3.2 Random Waste Screening

Random inspections of incoming loads will be conducted according to the schedule established by the Landfill Supervisor. If frequent violations are detected, additional random checks will be scheduled at the discretion of the Landfill Supervisor.

If a suspicious or unknown waste is encountered, the Landfill Technician will proceed with the waste screening as follows:

- The driver of the vehicle containing the suspect material will be directed to the waste screening area.
- The waste screening form (Appendix C) will be completed.
- Protective gear will be worn (leather gloves, steel-toed boots, and hard hat).
- The suspect material will be spread out with landfill equipment or hand tools and visually examined. Suspicious marking or materials, like the ones listed below, are investigated further:
  - Containers labeled hazardous
  - Material with unusual amounts of moisture
  - Biomedical (red bag) waste
  - Unidentified powders, smoke, or vapors
  - Liquids, sludges, pastes, or slurries
  - Asbestos or asbestos contaminated materials
  - Batteries
  - Other wastes not accepted by the Landfill

- The Landfill Supervisor will be called if unstable wastes that cannot be handled safely or radioactive wastes are discovered or suspected.

3.3.3 Removal of Hazardous or Prohibited Waste

Should hazardous or prohibited wastes be discovered during random waste screening or during tipping, the waste will be removed from the Landfill as follows:

- The waste will be loaded back on the hauler's vehicle. The hauler will then be informed of the proper disposal options.

- If the hauler or generator is no longer on the premises and is known, they will be asked to retrieve the waste and informed of the proper disposal options.
- The Landfill Supervisor will arrange to have the waste transported to the proper disposal site and then bill the original hauler or generator.

A record of the removal of all hazardous or prohibited wastes will be kept in the site operational records.

3.3.4 Hazardous or Prohibited Waste Discovered After the Fact

If Hazardous or prohibited wastes are discovered at the Landfill after the hauler has left the premises, the following procedure will be used to remove them:

- Access to the area will be restricted.
- The Landfill Supervisor will be immediately notified.
- The Landfill Technician will remove the waste from the working face if it is safe to do so.
- The waste will be isolated in a secure area of the Landfill and the area cordoned off.
- Local authorities will then be notified as appropriate.

The DSHW, the hauler (if known), and the generator (if known) will be notified within 24 hours of the discovery. The generator (if known) is responsible for the proper cleanup, transportation, and disposal of the waste.

3.3.5 Notification Procedures

The following agencies and people are contacted if any hazardous materials are discovered at the Landfill:

- Landfill Supervisor.....(435) 703-4742
- Washington County Health Department.....(435) 673-3528
- Director, DSHW.....(801) 536-0200

- Washington City Fire Department.....(435) 673-4788

A record of conversation will be completed as each of the entities is contacted. The record of conversation will be kept in the site operational records.

3.4 FACILITY MONITORING AND INSPECTION

3.4.1 Groundwater

The Landfill is not required to monitor groundwater.

3.4.2 Surface Water

Run-on diversion structures will be installed around the perimeter of the Landfill site during the initial construction as shown on Drawing 3 and detailed on Drawing 6 (Appendix A). The diversion structures envisioned are ditches, but berms may also be added in small areas if necessitated by topography. Potential run-on waters will be prohibited from accessing the working area of the landfill and diverted towards the Virgin River. Drawing 6 (Appendix A) shows the section view of the storm water diversion ditches.

ONP, LLC staff will inspect the drainage system monthly. Temporary repairs will be made as required to any observed deficiencies until permanent repairs can be scheduled. ONP, LLC or a licensed general contractor will repair drainage facilities as required.

3.4.3 Leachate Collection

The Landfill is not required to collect or monitor leachate.

3.4.4 Landfill Gas

The Landfill is not required to monitor landfill gas.

3.4.5 General Inspections

Routine inspections will be necessary to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to release of wastes to the environment or a threat to human health. Landfill Technicians will be responsible for conducting and recording routine inspections of the landfill facilities according to the following schedule:

- Landfill Technicians (when operating equipment) will perform a pre-operational inspection of all equipment daily. A post-operational inspection will be performed at the end of each shift while equipment is cooling down.
- All equipment will be on a regular maintenance schedule. A logbook will be maintained on each piece of equipment and any repairs and comments concerning the inspection will be recorded in the log.

- Facility inspections will be completed on a quarterly basis. Any needed corrective action items will be recorded, and the Landfill Technicians will complete any needed repairs. If a problem is of an urgent nature, the problem will be corrected immediately.

3.5 CONTIGENCY AND CORRECTIVE ACTION PLANS

The Washington City Fire Department will be contacted in all cases where hazardous materials are suspected to be involved. The following sections outline procedures to be followed in case of fire, explosion, run-on/run-off contamination, or suspected groundwater contamination:

3.5.1 Fire

The potential for fire is a concern in any landfill. The Landfill will follow a waste handling procedure to minimize the potential for a landfill fire. If any load comes to the facility on fire, the driver of the vehicle will be directed to a pre-designated area away from the working face. The burning waste will be unloaded, spread out, and immediately covered with sufficient amounts of soil to smother the fire. Once the burning waste cools and is deemed safe, the

material will then be incorporated into the working face. Some loads coming to the facility may be on fire but not detected until after being unloaded at the working face. If a load of waste that is on fire is unloaded at the working face, the load of waste will be immediately removed from the working face, spread out, and covered with soil.

The Washington City Fire department will be called if it appears that facility personnel and equipment cannot contain any fire. The Washington City Fire department will also be called if a fire is burning below the disposal surface or is difficult to reach or isolate.

In case of fire, the Landfill Supervisor will be notified immediately. A written report detailing the event will be placed in the operating record within seven days, including any corrective action taken.

3.5.2 Explosion

If an explosion occurs or seems possible, all personnel and customers will be accounted for and the Landfill will be evacuated. A corrective action plan will immediately be evaluated and implemented as soon as practicable.

The Landfill Supervisor will be notified immediately, and the Washington City Fire department will be called. The Director will be notified immediately.

3.5.3 Failure of Run-On/Run-Off Containment

The purpose of the run-on/run-off control system is to manage the stormwater falling in or near the Landfill. Were possible, water will be diverted away from the facility by utilizing ditches and berms. These ditches will be inspected on a regular basis and repaired as needed. All precipitation falling near the facility will flow around the site perimeter towards the Virgin River.

If a run-off ditch or berm fails, temporary berms or ditches will be constructed until a permanent run-off structure can be repaired.

Any temporary berms or other structures will be checked at least every 2 hours during the storm event until storm water flow has stopped. Permanent improvements or repairs will be made as soon as practicable.

The Landfill Supervisor will be notified immediately if a failure of the run-off systems is discovered. The event will be fully documented in the operating record, including any corrective actions implemented within 14 days.

3.5.4 Groundwater Contamination

The Landfill will not have ground water monitoring wells. If ground water contamination is ever suspected, studies to evaluate the potential contamination will be conducted and the existence and/or extent of contamination will be documented. This program may include the installation of ground water monitoring wells. A ground water monitoring program would be developed, and corrective action taken as deemed necessary, with the approval of the Director.

3.6 CONTINGENCY PLAN FOR ALTERNATIVE WASTE HANDLING

The most probable reason for a disruption in the waste handling procedures at the Landfill will be weather related. The facility may close during periods of inclement weather such as high winds, heavy rain, snow, flooding, or any other weather-related condition that would make travel or operations dangerous. The Landfill may also close for other reasons like fire, natural disaster, etc. In general, the ONP, LLC staff will minimize the possibility of disruption of waste disposal services from an operational standpoint.

In case of equipment failure, waste will be temporarily diverted for disposal at the Washington County Landfill while repairs to site equipment are being made.

3.7 MAINTENANCE PLAN

3.7.1 Groundwater Monitoring System

The Landfill will be exempt from requirements for groundwater monitoring. As a result, no groundwater monitoring system is planned.

3.7.2 Leachate Collection and Recovery System

The Landfill will be exempt from requirements for leachate collection. As a result, no leachate collection and recovery system is planned.

3.7.3 Gas Monitoring System

The Landfill will be exempt from requirements for a landfill gas monitoring system. No gas collection system is planned.

3.8 DISEASE, VECTOR, DUST, AND LITTER CONTROL

The vectors typically encountered at landfills are flies, birds, mosquitoes, rodents, skunks, and snakes. Due to the rural location of the facility, stray house pets may occasionally be encountered at the landfill. The program for controlling these vectors is as follows:

3.8.1 Insects

The elimination of breeding areas is essential in the control of insects. The facility will minimize the breeding areas by covering the waste with soil at a minimum of every 30 days and maintaining surfaces to reduce ponded water.

3.8.2 Rodents

Reducing potential food sources minimizes rodent populations at the landfill. Due to the nature of the C&D wastes, limited food is available and a significant numbers of mice or rats are therefore not anticipated.

In the unlikely event of a significant increase in the number of rodents at the landfill, a professional exterminator will be contacted. The exterminator will then establish an appropriate protocol for pest control in accordance with all county, state and federal regulations.

3.8.3 Birds

It is anticipated that the Landfill will have minimal problems with birds due to the nature of the C&D wastes. Good land filling practices of waste compaction, daily covering of working faces, and the minimization of ponded water, and the nature of the waste should alleviate most of the bird related problems. If the occasional need arises, the birds will be encouraged to leave by using cracker and whistler shells.

3.8.4 Household Pets

Because of the Landfill's location, some stray cats and dogs may wander onto landfill property. If stray animals are encountered (and can be caught), they will be turned over to the animal shelter. If the Landfill Technicians are unable to apprehend the animals, they will be chased off the property.

3.8.5 Wildlife

The Landfill may have a variety of wildlife located on or near the landfill property. Wildlife may include deer, snakes, foxes, skunks, and coyotes. If problem skunks or snakes are encountered, they will be exterminated. If other site wildlife becomes a problem, the facility will coordinate with the Division of Wildlife Resources to provide methods and means to eliminate the problem.

In the event that any of these vectors become an unmanageable problem, the services of a professional exterminator will be employed.

3.8.6 Fugitive Dust

The roads leading to the Landfill are paved, however; site access roads to the working face will be improved dirt/gravel road and will need occasional dust control measures. General landfill activities, site access by vehicles compounded with occasional high winds may present a fugitive dust problem. If the dust problem elevates above the "minimum avoidable dust level", facility personnel will apply water to the problem areas. A combination of gravel and a dust palliative may be utilized if dust becomes prevalent.

3.8.7 Litter Control

The nature of the C&D waste anticipated to be received at the Landfill is such that it will naturally resist blowing. However; due to the nature of landfilling operations, it is anticipated blowing litter will still be an occasional problem. Landfill personnel will perform routine litter cleanup to keep the landfill and surrounding properties clear of windblown debris.

Whenever possible, the working face will be placed down wind so that blowing litter is worked into the landfill face. During windy conditions, landfill personnel will minimize the spreading of the waste to reduce the quantity of windblown debris.

3.9 RECYCLING AND MATERIAL REUSE

Material reuse and recycling activities are planned to be conducted in conjunction with the C&D operations. Metals, appliances, wood, and other re-useable or recyclable materials will be accepted at the Landfill. As the recycling markets fluctuate; other recyclable materials may be added to the list of material that the facility accepts.

3.10 TRAINING PROGRAM

As part of the initial training of new employees, site specific training will be required. All on-site personnel will be required to review the approved permit annually.

All personnel associated with the operation of the landfill receive site specific training annually. The "Sanitary Landfill Operator Training Course" offered by the Solid Waste Association of North America (SWANA) will be required for the Landfill Supervisor. SWANA waste screening will also be required of all Landfill Technicians. Certificates of completion will be kept in personnel files.

Regular safety and equipment maintenance training sessions will be held to ensure that employees are aware of the latest technologies and that good safety practices are used at all times.

3.11 RECORDKEEPING

An operating record will be maintained as part of a permanent record on the following items:

- Number of vehicles entering the landfill and types of wastes received on a monthly basis.
- Daily logs forms will be submitted to the ONP, LLC office for storage.
- Deviations from the approved Plan of Operation.
- Personnel training and notification procedures.
- Random load inspection log.

3.12 SUBMITTAL OF ANNUAL REPORT

ONP, LLC will submit a copy of its annual report to the Director by March 1 of each year for the most recent calendar or fiscal year of facility operation. The annual report will include facility activities during the previous year and will include, at a minimum, the following:

- Name and address of facility.
- Calendar or fiscal year covered by the annual report.
- Annual quantity, in tons or volume, in cubic yards, and estimated in-place density in pounds per cubic yard of solid waste.

- Annual update of required financial assurances mechanism pursuant to Utah Administrative Code R315-309.
- Training programs completed.

3.13 INSPECTIONS

The Landfill Supervisor, or his/her designee, will inspect the facility to minimize malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes to the environment or to a threat to human health. These inspections will be conducted on a quarterly basis, at a minimum. An inspection log (Appendix C) will be kept as part of the operating record. This log will include at least the date and time of inspection, the printed name and handwritten signature of the inspector, a notation of observations made, and the date and nature of any repairs or corrective actions. Inspection records will be available to the Director or an authorized representative upon request.

3.14 RECORDING WITH COUNTY RECORDER

Plats and other data, as required by the County Recorder, will be recorded with the Washington County Recorder as part of the record of title no later than 60 days after certification of closure.

3.15 STATE AND LOCAL REQUIREMENTS

The Landfill will maintain compliance with all applicable state and local requirements including zoning, fire protection, water pollution prevention, air pollution prevention, and nuisance control.

3.16 SAFETY

Landfill personnel will be required to participate in an ongoing safety program. This program will comply with the Occupational Safety and Health Administration (OSHA), and the National Institute of Occupational Safety and Health (NIOSH) regulations as applicable. This program will be designed to make the site and equipment as secure as possible and to educate landfill personnel about safe work practices.

3.17 EMERGENCY PROCEDURES

In the event of an accident or any other emergency situation, the Landfill Technician will immediately contact the Landfill Supervisor and proceed as directed. If the Landfill Supervisor is not available, the Landfill Technicians will call the appropriate emergency number posted by the telephone. The emergency telephone numbers for the facility are:

- Washington County Central Dispatch..... 911
- Washington City Fire Department..... (435) 673-4788
- Washington County Sheriff's Office ..... (435) 637-5730
- St. George Regional Hospital ..... (435) 251-1000
- Landfill Supervisor..... (435) 703-4742

APPLICATION FOR A PERMIT TO OPERATE A CLASS VI LANDFILL

ONP, LLC
(Purgatory Landfill)

PART III - TECHNICAL REPORT

TABLE OF CONTENTS

1.0 – ENGINEERING REPORT

1.1 CELL DESIGN

The Dixie Waste Service Reuse Facility (Landfill) has been broken into two phases, Phase A, and B. The Permit Drawings show the two Phases in relation to the topography of the site. Phase A consists of three Cells (1, 2, & 3) beginning at the north-central area of the site and progressing uphill. The lowest elevation of Phase A is approximately 2,722 feet above mean sea level. Phase A will be completed at an approximate elevation of 2,836 feet. The updated Drawings reflect the site grading and drainage improvements performed since the initial permit submittal and lateral expansion to the southeast of Phases A & B.

Phase B will consist of an additional three Cells (4, 5, & 6). Phase B will be constructed immediately southeast of Phase A and extend uphill in a similar manner. The lowest elevation of Phase B is approximately 2,700 and will extend vertically to an elevation of approximately 2,834. The landfill is designed to fill in the undulating site topography and maintain adequate site access and landfill support structures. The layout of the site is as indicated on Drawing 2 (Appendix A).

1.1.1 Fill Method

As described in Section 3.2.3 of Part II – General Report, Waste will be end dumped at the toe of the work face when possible and spread up the slope in one to two-foot lifts, keeping the slope at a typical five to one (horizontal to vertical) configuration. The C&D wastes will then be compacted by making three to five passes up and down the slope.

1.1.2 Interim and Final Cover

Interim and final cover will be placed in compliance with the DSHW Class VI requirements. Section R315-305-5 stipulates that timbers, wood, and other combustible waste be covered as needed to avoid a fire. Wastes within the Landfill will be covered with a minimum 6-inch soil cover no less frequently than every 30 days.

1.1.2.1 Final Cover

As specified in Rule R315-305-5 the final cover will consist of a minimum of two feet of soil, the upper six inches of which will be topsoil material capable of sustaining vegetation. The topsoil layer will then be seeded with indigenous grasses and other shallow rooted vegetation.

1.1.3 Final Cover Elevations

As discussed previously, the maximum elevation for the final cover is planned to be approximately 2,830 feet above mean sea level at the highest point. The upper area of the cover will slope at approximately 5% downward to the southeast. All side slopes of the final cover are planned to be a maximum of 4:1 (horizontal to vertical). These slopes will allow for some settlement without compromising the run-off characteristics of the cover soil. Drawing 4 (Appendix A) details the topography of the final cover.

1.2 DESIGN AND LOCATION OF RUN-ON/RUN-OFF CONTROL SYSTEMS

Run-on control ditches (berms) will be installed to intercept potential run-on above all areas of the site. All run-on will be diverted around the site by two run-on ditches (berms). The topography of the site will necessitate the construction of two run-off ditches downhill of the Landfill to direct all potential run-off to a storm water detention pond. The run-off control ditches will be constructed as indicated on Drawing 6 (Appendix A). The existence, location, and cross sectional area of the field located run-on ditches will be verified prior to the acceptance of waste. Modifications to the site topography have been made with perimeter drainage structures being constructed.

The design of all storm water ditches was based on a 25-year 24-hour storm event of 2.52 inches of precipitation, which was obtained from the Utah Climate Center. Using a curve number of 80, time of concentration of 1-hour and type II rainfall with the TR55 computer software, a peak discharge of 12 cubic feet per second (cfs) was obtained. The cover and surrounding drainage areas was divided into two areas of approximately 26 acres each. Based on our analysis the flow depth in a "V" ditch with 2:1 side slopes would be approximately 1 foot during peak discharge. The location and section view of the run-off control ditches are shown on Drawings 4 & 5 (Appendix A).

1.3 FLOODPLAIN

The closest surface water to the Landfill site is the Virgin River which lies approximately ¾ of a mile southwest of the site. The floodplain associated with the Virgin River is not proximate to the site nor do any perennial streams flow through the site.

1.4 WETLANDS

The proposed Landfill site is in an arid area with no wetlands.

1.5 GROUNDWATER

During the permitting of the Washington County Landfill (located within a mile of the site) 5 holes were drilled, two of which encountered perched groundwater at 42 and 51 feet below the surface. The Washington County Landfill Hydrogeologic Evaluation (Montgomery, 1994) stated that other than the perched water stated above; no groundwater was encountered within a depth of 200 feet.

1.6 GEOLOGY

The Washington County Landfill Hydrogeologic Evaluation (Montgomery, 1994) summarizes the geology in the vicinity of the Landfill to be primarily the Moenkopi Formation consisting of siltstones, limestones, and shales.

2.0 – CLOSURE PLAN

2.1 CLOSURE SCHEDULE

The Landfill will be closed in the same Phases as the landfill is developed. Phase 1 of the closure will incorporate the area of Phase A (Cells 1, 2, & 3). As indicated in Part II – General Report, the Phases have been designated to facilitate access, development and design. The facility life has been estimated based on the first two years' annual reports and projected forward at a rate that mirrors anticipated population growth in the area. The anticapated life of the landfill extends from a previously predicted 2034 date to 2043. Increases in waste volume are predicted at a 2 percent growth rate after an initial 5-year period when rates are less stable as the landfill becomes a known alternative for disposal in the area.

2.2 DESIGN OF FINAL COVER

As discussed previously, the final cover will consist of a minimum of two feet of soil, the top six inches of which will consist of soil suitable to sustain native vegetation. The cover soil will be seeded with indigenous grasses and cover slopes will be primarily at a 4:1 with no slopes less than 5%.

2.3 CAPACITY OF SITE IN VOLUME AND TONNAGE

The approximate Landfill capacity and projected life by Phase are presented in the following summary table:

Landfill Cell	Waste & Soil Volume (cubic yards)	Capacity (net tons of waste)	Projected Phase Life (years at 2% growth)
1	591,041	265,968	
2	582,514	262,131	
3	585,876	263,644	Phase A – 13 to14 years
4	533,504	240,076	
5	646,488	290,919	
6	816,578	367,460	Phase B – 11 to 12 years
TOTAL	**3,756,000**	**1,690,200**	**Max. Total Life – 26 years**

The waste tonnage numbers presented in the table are net numbers (total airspace reduced by 25% to account for cover soil usage). The detailed analysis of the landfill life is presented in Appendix D.

2.4 FINAL INSPECTION

A final inspection will be performed at the Landfill site at the termination of landfilling activities. The final inspection will determine if the Landfill meets all the closure requirements as outlined in the permit and closure plans. The final inspection will be conducted by members of the State of Utah DSHW and ONP, LLC.

3.0 – POST-CLOSURE CARE PLAN

3.1 SITE MONITORING

There are no post-closure monitoring requirements for groundwater or gas at the Landfill since it is a Class VI facility. However, other physical aspects of the Landfill will be monitored on a quarterly basis.

Landfill topography shall be visually checked for depressions that could result in ponding or rapid erosion. Irregularities in the surface of the final cover will be regraded and revegetated as needed to protect the surface from erosion and to eliminate ponding.

Side slopes will be maintained or reestablished with a maximum gradient of 4:1 and the top slopes will be maintained at no less than 5% to prevent ponding. The frequency of monitoring may be reduced only after a successful demonstration to the Director that the closed landfill has stabilized.

During post-closure, run-off from the covered landfill will be directed toward ditches constructed to collect and transport runoff to the storm water detention pond. The ditches will be inspected quarterly through the post-closure period. Repairs to the ditches and storm water detention pond will be completed as part of the maintenance activities.

3.2 CHANGES TO RECORD OF TITLE, LAND USE AND ZONING

The Washington County Recorder will be provided plats and a statement of fact concerning the location of any disposal site no later than 60 days after certification of closure. If necessary, the closed Landfill will be rezoned to conform to the existing Washington County zoning regulations after final closure. A description of the Landfill history and filled areas will be permanently appended to the record of title. Land use restrictions will be assigned to the site in compliance with existing regulations for closed landfills at the time of closure.

3.3 MAINTENANCE

Post-closure maintenance activities will be designed and implemented under the direction of a licensed professional engineer in response to results of inspections. Design decisions will be made after the first post-closure quarterly inspection and implemented within 30 days after identification of maintenance issues. Results of post-closure maintenance shall be reported to the Director by a professional engineer licensed in the state of Utah.

Because of the arid climate in Washington County, maintenance of final covers and run-on/run-off systems should be minimal. Final cover and control structures will be inspected quarterly as indicated previously.

Run-on/run-off control structures and final covers could be damaged by an unusually intense storm. Consequently, an unscheduled inspection will be required after any occurrence of a 25-year storm event within a five-mile radius of the site. If the post-storm inspection discloses damage, it will be appraised by a licensed engineer. The engineer will solicit bids if necessary and supervise repairs completed by ONP, LLC or a licensed contractor. Funds for payment for the repair work will be disbursed from the Financial Assurance Plan after approval by the Director.

3.4 POST-CLOSURE CONTACTS

ONP, LLC ..... (435) 673-5610

4.0 – FINANCIAL ASSURANCE

4.1 CLOSURE COSTS

The Landfill is planned to be closed in two events; Phase A after Cell 3 is filled and Phase B after Cell 6 is filled. The closure cost estimates were based on the cost to close these projected final areas, including the cost of obtaining, moving and placing the cover material, final grading, placing topsoil, fertilizing and seeding.

4.2 POST CLOSURE CARE COSTS

The post-closure estimate must be the cost for completing care reasonably expected during the 30-year post-closure period. These tasks include site inspections, maintenance, and record keeping.

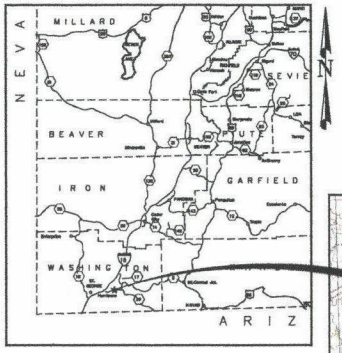
4.3 FINANCIAL ASSURANCE MECHANISM

The estimated amount required for financial assurance is presented in Appendix E.

APPENDIX A

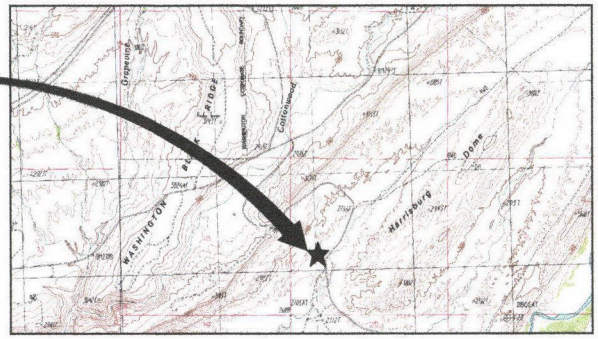
PURGATORY LANDFILL

2021 PERMIT RENEWAL



LOCATION MAP

NOT TO SCALE



VICINITY MAP

INDEX

BACKGROUND IMAGERY FROM UTAH AGRC: 2018 NAIP SERIES

0 250 500 1000
SCALE IN FEET

SITE MAP

GNP L.L.C.
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(435) 673-5610

CONSULTANTS

IGES
2702 South 1030 West, Suite 10
Salt Lake City, Utah 84119
(801)270-9400 Fax: (801)270-9401

MARK	DATE	DESCRIPTION
	5/27/21	2021 DRAFT PERMIT

ISSUE:

SHEET TITLE

TITLE SHEET

N

ONP L.L.C.
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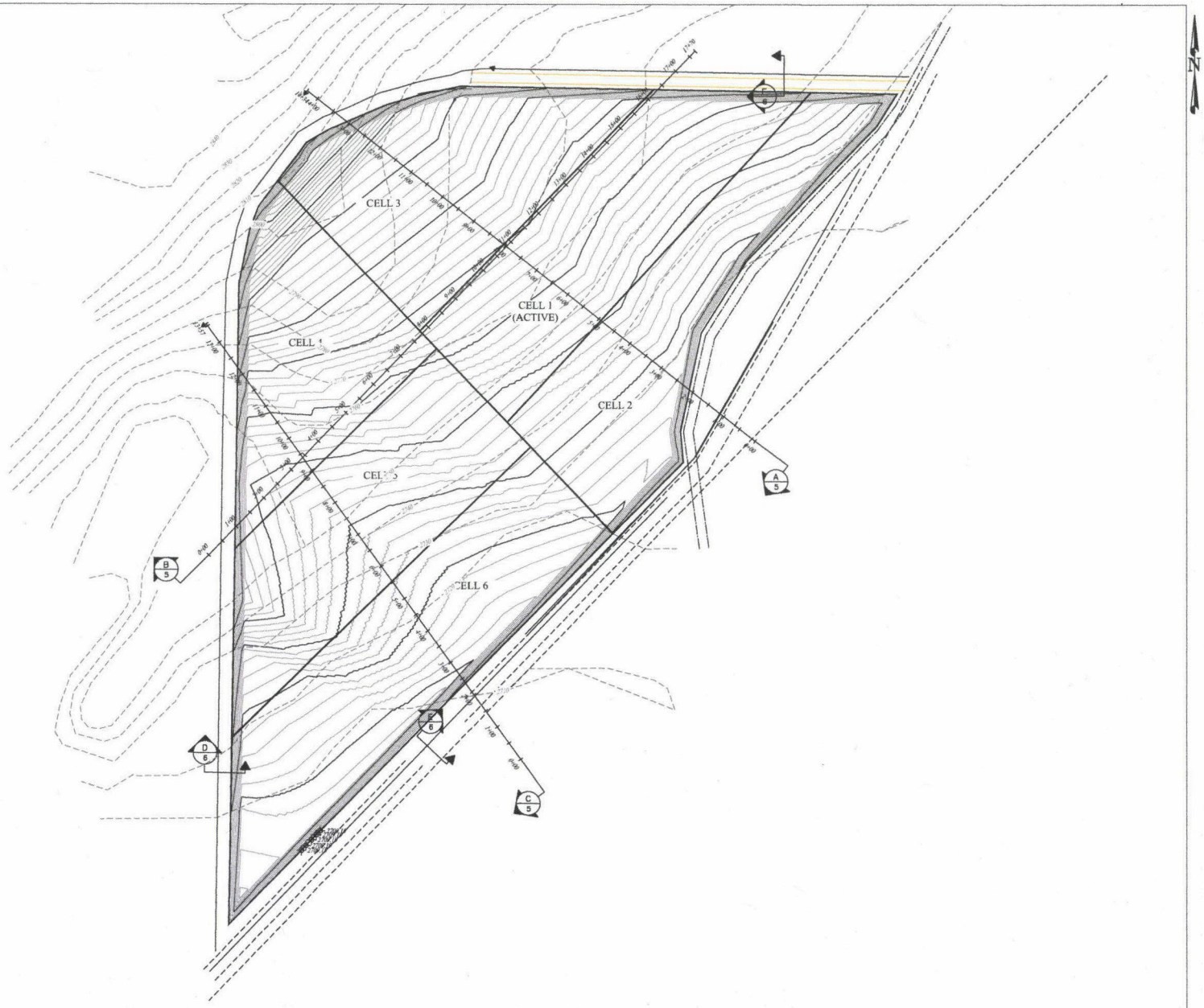
MARK	DATE	DESCRIPTION
	5/27/21	2021 PERMIT DRAFT

ISSUE:

SHEET TITLE

GENERAL ARANGEMENT

2



LANDFILL EXCAVATION (SEE NOTE 1)

0 60 120 240
SCALE IN FEET

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NOTES:

COMPLETE EXCAVATION AS SHOWN TO DEPTH OF 10-15 FT. EXCAVATION OF CELLS TO BE PERFORMED SEQUENTIALLY AND IN ORDER AS NUMBERED.

*SOIL VOLUMES GENERATED PER CELL EXCAVATION**

CELL 1:	*140,394 CYD*
CELL 2:	*138,368 CYD*
CELL 3:	*139,167 CYD*
CELL 4:	*113,370 CYD*
CELL 5:	*138,968 CYD*
CELL 6:	*177,310 CYD*
TOTAL:	*847,566 CYD*

*AIRSPACE AVAILABLE PER CELL**

CELL 1:	*591,041 CYD*
CELL 2:	*582,514 CYD*
CELL 3:	*585,876 CYD*
CELL 4:	*533,304 CYD*
CELL 5:	*646,493 CYD*
CELL 6:	*816,578 CYD*
TOTAL:	*3,756,000 CYD*

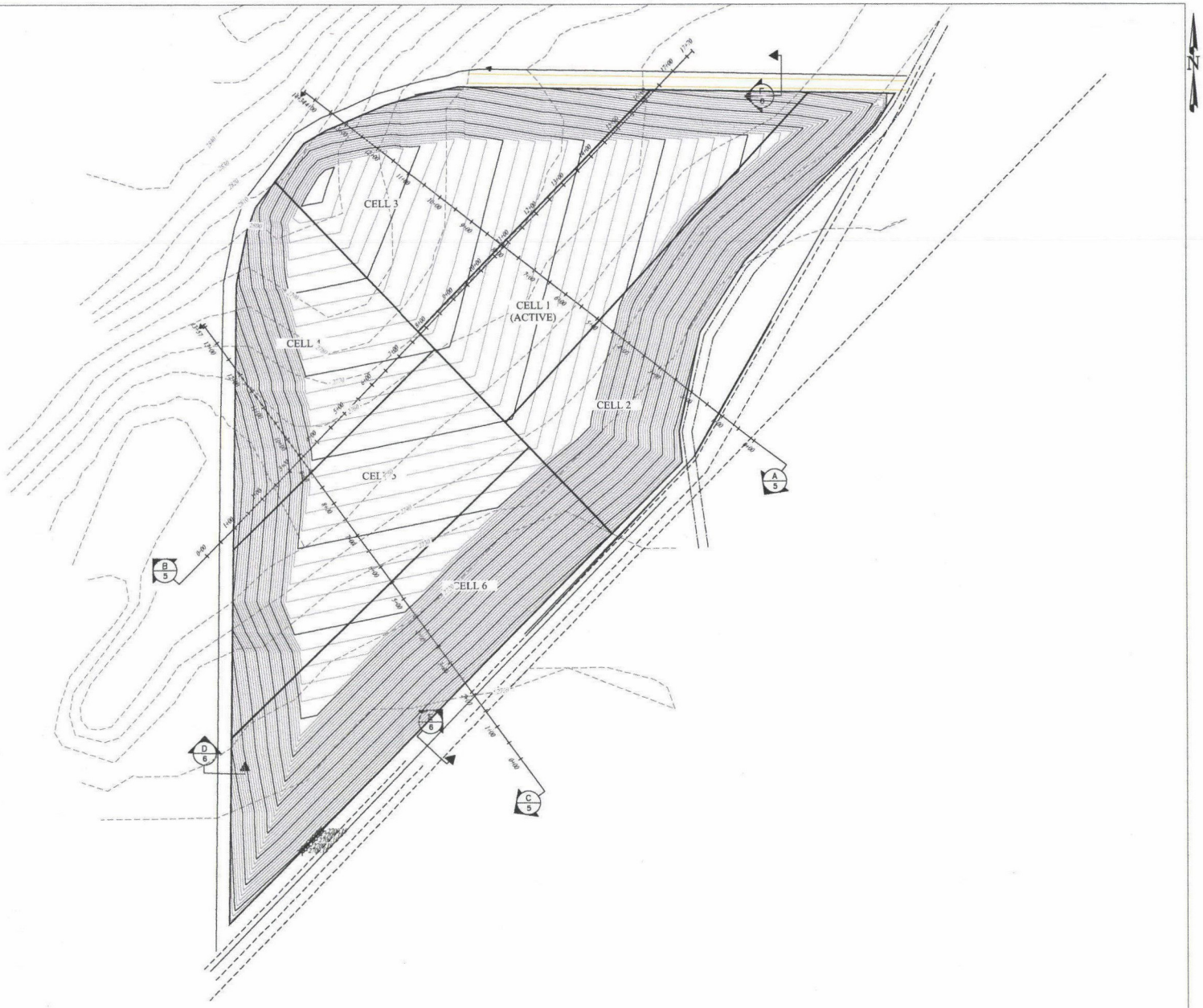
** ACTUAL VOLUMES WILL DEPEND ON DEPTH OF EXCAVATION AND HEIGHT OF FILL WITHIN PERMITTED FOOTPRINT.*

MARK	DATE	DESCRIPTION
	5/27/21	2021 PERMIT DRAFT

ISSUE:

SHEET TITLE

LANDFILL DEVELOPMENT



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NOTES:
COVER AREA

CELL 1:	311,981 SQ-FT
CELL 2:	307,488SQ-FT
CELL 3:	309,255 SQ-FT
CELL 4:	251,931 SQ-FT
CELL 5:	308,812 SQ-FT
CELL 6:	294,017 SQ-FT
TOTAL:	1,883,476 SQ-FT

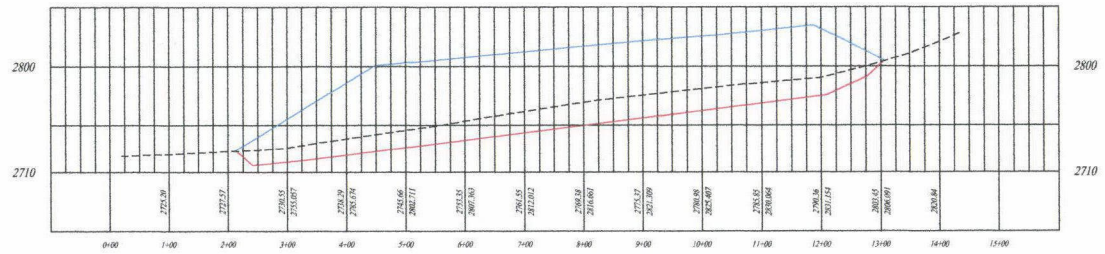
MARK	DATE	DESCRIPTION
	5/27/21	2021 PERMIT DRAFT

ISSUE:

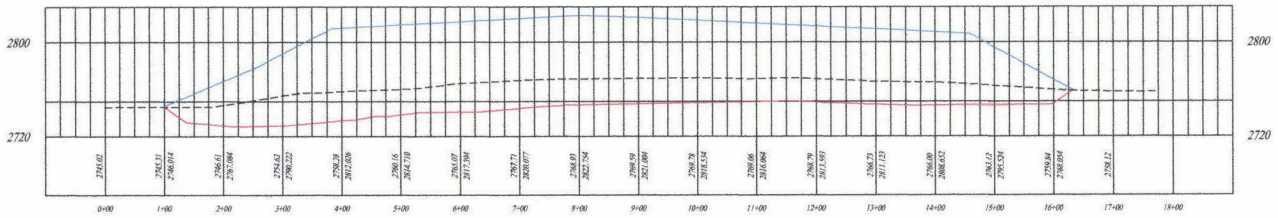
SHEET TITLE

FINAL COVER

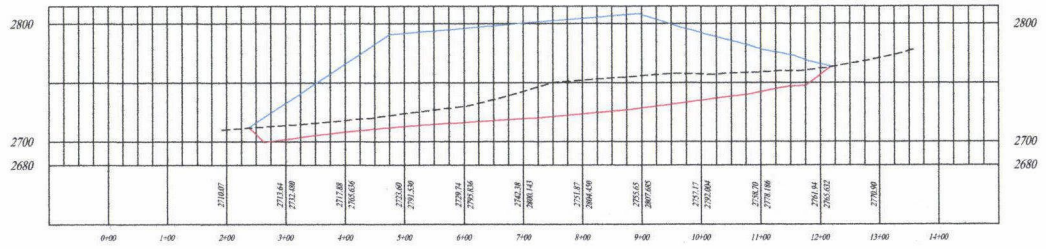
4



A/4 SECTION A-ELEVATION VIEW
2X VERTICAL EXAGGERATION



B/4 SECTION B-ELEVATION VIEW
2X VERTICAL EXAGGERATION



C/4 SECTION C-ELEVATION VIEW
2X VERTICAL EXAGGERATION

0 50 100 200
SCALE IN FEET
2X VERTICAL EXAGGERATION

ONP L.L.C.
P.O. BOX 910278
ST. GEORGE, UT 84791-02780
(435) 673-5610

CONSULTANTS

IGES
2702 South 1030 West, Suite 10
Salt Lake City, Utah 84119
(801)270-9400 Fax: (801)270-9401

NOTES:

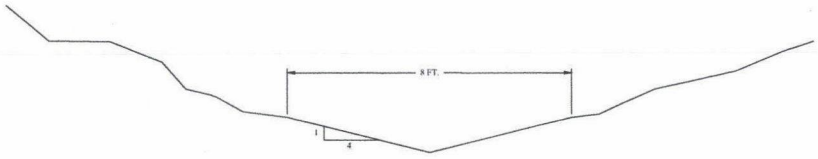
MARK	DATE	DESCRIPTION
	5/27/21	2021 PERMIT DRAFT

ISSUE:

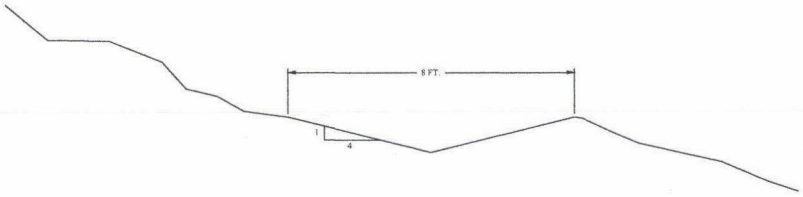
SHEET TITLE

ELEVATION VIEW

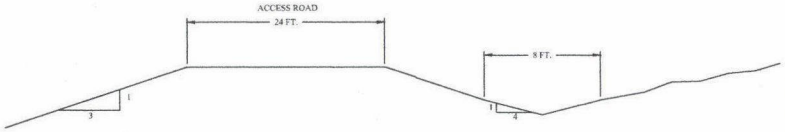
5



D/4 DETAIL D (NTS)
STORM WATER RUN-ON DITCH



E/4 DETAIL F (NTS)
STORM WATER RUN-OFF DITCH



F/4 DETAIL G (NTS)
ACCESS ROAD WITH RUN-ON DITCH

ONP L.L.C.
P.O. BOX 910278
ST. GEORGE, UT 84791-02780
(435) 673-5610

CONSULTANTS

IGES
2702 South 1030 West, Suite 10
Salt Lake City, Utah 84119
(801)270-9400 Fax: (801)270-9401

NOTES:

MARK	DATE	DESCRIPTION
	5/27/21	2021 PERMIT DRAFT

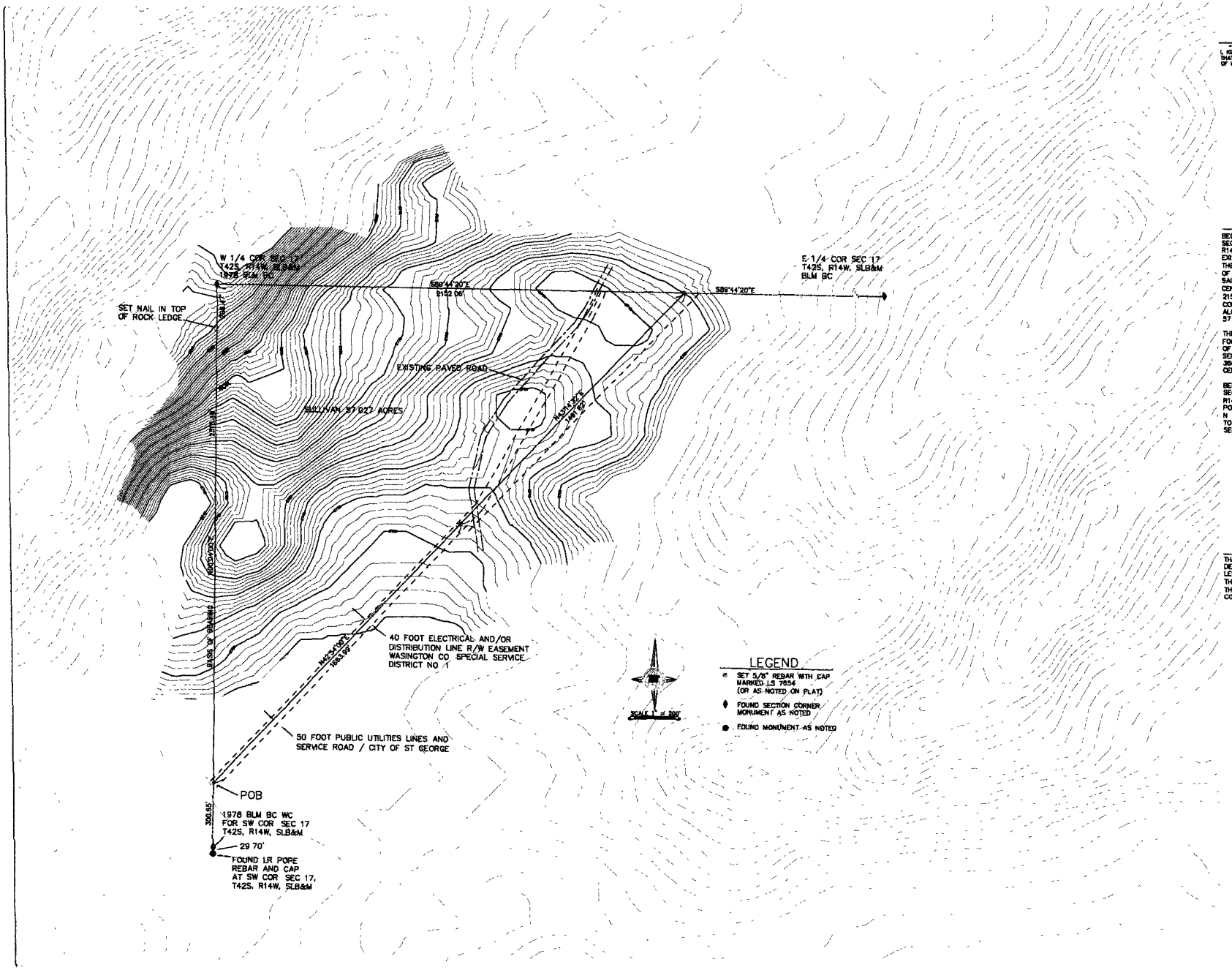
ISSUE:

SHEET TITLE

DETAILS

6

APPENDIX B



SURVEYOR'S CERTIFICATE

I, KEVAN L. BUNDY, DO HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR, THAT I HOLD CERTIFICATE No. 177128 AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH AND THAT I HAVE MADE A SURVEY OF THE HEREON DESCRIBED LAND

No.177128
KEVAN L.
BUNDY

KEVAN L. BUNDY PLS No. 177128

DESCRIPTIONS

BEGINING AT A POINT N 0°04'00" E, 330.35 FEET ALONG THE SECTION LINE FROM THE SOUTHWEST CORNER OF SECTION 17, T42S, R14W, SLB&M, SAID POINT BEING ON THE NORTHERLY LINE OF AN EXISTING PUBLIC UTILITY AND SERVICE ROAD EASEMENT, RUNNING THENCE N 42°54'00" E, 1863.99 FEET ALONG SAID NORTHERLY LINE OF SAID EASEMENT; THENCE N 43°14'32" E, 1481.82 FEET ALONG SAID NORTHERLY LINE OF SAID EASEMENT TO THE EAST-WEST CENTER SECTION LINE OF SAID SECTION 17; THENCE N 89°44'20" W, 2152.08 FEET ALONG SAID CENTER SECTION LINE TO THE WEST 1/4 CORNER OF SAID SECTION 17; THENCE S 0°04'00" W, 2315.49 FEET ALONG THE SECTION LINE TO THE POINT OF BEGINNING. CONTAINING 57.027 ACRES

THE ABOVE DESCRIBED PARCEL IS SUBJECT TO THE FOLLOWING 40 FOOT WIDE ELECTRIC TRANSMISSION AND/OR DISTRIBUTION LINE RIGHT OF WAY EASEMENT IN FAVOR OF WASHINGTON COUNTY SPECIAL SERVICE DISTRICT NO. 1, AS RECORDED IN BOOK 563, PAGES 366-368 OF THE WASHINGTON COUNTY RECORDERS OFFICE, THE CENTERLINE OF WHICH IS DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT N 0°04'00" E, 321.98 FEET ALONG THE SECTION LINE FROM THE SOUTHWEST CORNER OF SECTION 17, T42S, R14W, SLB&M, RUNNING THENCE N 42°56'00" E, 1766.43 FEET TO A POINT ON THE NORTHEAST SIDE OF AN EXISTING ROADWAY; THENCE N 29°20'05" E, 1015.34 FEET; THENCE N 25°23'30" E, 135.39 FEET TO A POINT ON THE EAST-WEST CENTER SECTION LINE OF SAID SECTION 17

NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO MONUMENT THE HEREON DESCRIBED PARCEL, DETERMINE PARCEL ACREAGE, AND GENERATE LEGAL DESCRIPTION FOR THE PARCEL. THE BASIS OF BEARING FOR THIS SURVEY IS N 0°04'00" E ALONG THE SECTION LINE BETWEEN THE WITNESS CORNER FOR THE SOUTHWEST CORNER AND THE W 1/4 CORNER OF SECTION 17, T42S, R14W, SLB&M

BUNDY SURVEYING INCORPORATED
620 NORTH 1300 WEST #B ST. GEORGE, UTAH 84770
(435) 673-2254 / (435) 619-1980 / bundy@infowest.com

SURVEY LOCATION:	SURVEY DATE:
SW 1/4 SECTION 17, T42S, R14W, SLB&M	MARCH 2004

REQUESTED BY:

DIXIE WASTE SERVICES

APPENDIX C

Purgatory Landfill

Daily Log

Date: _____

Load #	Time	Vehicle Identification	Size of Load (Cu. Yds.)	Type of Waste	Charge
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

_____

Signature of Inspector

Purgatory Landfill

Random Load Inspection

Date of Inspection: _____

Owner of Load: _____

Address of Owner: _____

Description of Materials in Load:

_____

_____

_____

_____

_____

_____

Approximate Quantity of Load:

_____ Tons

_____ Cu. Yds.

_____

Signature of Owner / Carrier

_____

Signature of Inspector

Purgatory Landfill

Site Inspection Form

DATE OF INSPECTION: _____

LANDFILL AREA: _____

PERSONNEL ON SHIFT: _____

_____

GENERAL SITE CONDITIONS: _____

_____

_____

_____

_____

SPECIFIC CONDITIONS:

Closed Cover Condition: _____

Daily Cover: _____

Run-On Structures: _____

Run-Off Structures: _____

Fences: _____

Site Structures: _____

CORRECTIVE ACTION REQUIRED: _____

_____

_____

_____

_____

Signature of Inspector

APPENDIX D

PURGATORY LANDFILL OPERATIONAL LIFE

(25% growth for 5 yrs, 2% growth assumed after 2022)

ACTIVE PHASE	YEAR	ESTIMATED DAILY TOTAL WASTE (Tons)	DAYS OF OPERATION	ESTIMATED YEARLY WASTE (Tons)	ESTIMATED YEARLY WASTE (Cu. Yds.)	CUMULATIVE WASTE & Soil (25% soil cover) (Cu. Yds.)	REMAINING LANDFILL CAPACITY (Cu. Yds.)	REMAINING LANDFILL CAPACITY (Percent)
							3,756,000	100.0%
	2018	68	310	20,989	35,052	43,815	3,712,185	98.8%
	2019	96	310	29,866	49,876	106,160	3,649,840	97.2%
Cell 1	2020	128	310	39,802	66,469	189,246	3,566,754	95.0%
	2021	160	310	49,753	83,087	293,105	3,462,895	92.2%
	2022	201	310	62,191	103,858	422,928	3,333,072	88.7%
	2023	205	310	63,434	105,936	555,347	3,200,653	85.2%
	2024	209	310	64,703	108,054	690,415	3,065,585	81.6%
Cell 2	2025	213	310	65,997	110,215	828,184	2,927,816	78.0%
	2026	217	310	67,317	112,420	968,709	2,787,291	74.2%
	2027	221	310	68,663	114,668	1,112,044	2,643,956	70.4%
	2028	226	310	70,037	116,961	1,258,245	2,497,755	66.5%
Cell 3	2029	230	310	71,437	119,301	1,407,371	2,348,629	62.5%
	2030	235	310	72,866	121,687	1,559,479	2,196,521	58.5%
	2031	240	310	74,324	124,120	1,714,630	2,041,370	54.3%
	2032	245	310	75,810	126,603	1,872,883	1,883,117	50.1%
Cell 4	2033	249	310	77,326	129,135	2,034,302	1,721,698	45.8%
	2034	254	310	78,873	131,717	2,198,948	1,557,052	41.5%
	2035	260	310	80,450	134,352	2,366,888	1,389,112	37.0%
Cell 5	2036	265	310	82,059	137,039	2,538,187	1,217,813	32.4%
	2037	270	310	83,700	139,780	2,712,911	1,043,089	27.8%
	2038	275	310	85,374	142,575	2,891,131	864,869	23.0%
	2039	281	310	87,082	145,427	3,072,914	683,086	18.2%
Cell 6	2040	287	310	88,824	148,335	3,258,333	497,667	13.2%
	2041	292	310	90,600	151,302	3,447,461	308,539	8.2%
	2042	298	310	92,412	154,328	3,640,371	115,629	3.1%
	2043	179	310	55,391	92,504	3,756,000	0	0.0%

Total Remaining Landfill Capacity in Tons = 1,708,624

Approximate Gross Air Space Remaining = 3,566,754 (Cubic Yards)

Net Air Space based upon a 25% reduction to allow for cover soils

Approximate Net Waste Volume Remaining= 2,675,065 (Cubic Yards)

Conversion of tons of waste to Cubic Yards of waste is based upon an estimated conversion rate of 1,200 pounds per one Cubic Yard of waste.

Waste acceptance escalated at 25% for 5 years (2018-2022) and increased at 2%/year for each year after 2022

APPENDIX E

LANDFILL POST-CLOSURE COSTS (30 YEARS)

Section 1.0 - Engineering

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
1.1	**Post-Closure Plan**	NA			$0
1.2	**Annual Report** (including results from gas, leachate, and ground water sampling - details of maintenance performed)	LS	$250	30	$7,500
a	Semiannual Site Inspections	LS	$1,200	60	$72,000
b	Plan Update	LS	$0	0	$0
				Engineering Subtotal	$79,500

Section 2.0 - Gas Collection System - Sampling

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
2.1	**Sample Collection**	LS	$0	0	$0
2.2	**Sample Analysis**	NA	$0	0	$0
2.3	**Report** (Part of Annual Report)				
				Gas Collection System - Sampling Subtotal	$0

Section 3.0 - Leachate Collection System - Sampling

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
2.1	**Sample Collection**	LS	$0	0	$0
2.2	**Sample Analysis**	NA	$0	0	$0
2.3	**Report** (Part of Annual Report)				
				Leachate Collection System - Sampling Subtotal	$0

Section 4.0 - Ground Water Monitoring System - Sampling

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
3.1	**Sample Collection**	LS	$0	0	$0
3.2	**Sample Analysis**	LS	$0	0	$0
3.3	**Report** (Part of Annual Report)				
				Ground Water Collection System - Sampling Subtota	$0

Section 5.0 - Facility Operations and Maintenance

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
4.1	**Cover**				
a	Soil Replacement (1 every 5 years)	LS	$600	6	$3,600
b	Vegetation/Reseeding (1 every 5 years)	LS	$1,500	6	$9,000
4.2	**Storm Water Protection Structures**				
a	Ditch and Culvert Maintenance	LS	$0	0	$0
b	Berm and Basin Maintenance	LS	$0	0	$0
4.3	**Gas Collection System**				
a	System Operation	NA	$0	0	$0
b	System Repair	LS	$0	0	$0
4.4	**Leachate Collection System**				
a	System Operation	NA	$0	0	$0
b	System Repair	NA	$0	0	$0
4.5	**Ground Water Monitoring System**				
a	System Operation	NA	$0	0	$0
b	System Repair	LS	$0	0	$0
4.6	**Site Security**				
a	Lighting, signs, etc…	LS	$0	0	$0
b	Fencing and Gates	LS	$500	6	$3,000
4.7	**Miscellaneous**				
a					
b					
				Facility Operations and Maintenance Subtotal	$15,600

Total	$95,100
10% Contingency	$9,510
Total Post-Closure Cost	$104,610

PHASE A (EAST 1/2) - LANDFILL CLOSURE COSTS

Section 1.0 - Engineering **PHASE A**

(ESTIMATED DATE OF CLOSURE= 2032, AREA= 925,766 FT SQ)

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
1.1	**Topographic Survey**	LS	$0	0	$0
1.2	**Boundary Survey for Closure**	NA	$0	0	
1.3	**Site Evaluation**	NA	$0	0	$0
1.4	**Development of Plans (Cover and Gas Collection)**	LS	$1,000	1	$1,000
1.5	**Contract Administration - (Bidding and Award)**	LA	$0	0	$0
1.6	**Administrative Costs - (Certification of Final Cover and Closure Notice)**	LS	$0	1	$0
1.7	**Project Management - (Construction Observation and Testing)**	LS	$3,200	1	$3,200
1.8	**Monitor Well Consultant Cost**	NA	$0	0	$0
1.9	**Other Environmental Permit Costs**	NA	$0	0	$0
				Engineering Subtotal	$4,200

Section 2.0 - Construction **PHASE A**

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
2.1	**Final Cover System**				
2.1.1	***Site Preparation/ Site Regrading***	ACRE	$1,000	21.5	$21,500
2.1.2	*Gas Collection Layer/Pipes*	Included below			$0
2.1.3	*Low permeability Layer (Soil - If Applicable)*				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	NA			$0
c	Soil Transportation	NA			$0
d	Soil Placement	NA			$0
e	Soil Amendment (compact)	NA			$0
2.1.4	***Low permeability Layer (Synthetic - If Applicable)***				
a	Geotextile	NA			$0
b	GCL	SQ FT	$0.00	0	$0
c	Geomembrane (HDPE,PVC,LLDPE,etc…)	SQ FT	$0.00	0	$0
2.1.5	***Drainage Layer (Soil - If Applicable)***				
a	Geotextile	NA			$0
b	Sand/Gravel	NA			$0
2.1.6	***Drainage Layer (Synthetic - If Applicable)***				
a	Geotextile	NA			$0
b	Geonet/Geocomposite	SQ FT	$0.00	0	$0
2.1.7	***Erosion Protection Soil Layer***				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	CY	$0.50	52,030	$26,015
c	Soil Transportation	CY	$1.00	52,030	$52,030
d	Soil Placement	CY	$0.75	52,030	$39,023
e	Soil Amendment (compact)	CY			$0
2.1.8	***Topsiol Layer***				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	CY	$0.50	17,343	$8,672
c	Soil Transportation	CY	$1.00	17,343	$17,343
d	Soil Placement	CY	$0.75	17,343	$13,008
e	Soil Amendment	NA			$0
2.1.9	***Revegetation***				
a	Seeding	ACRE	$800	21.5	$17,200
b	Fertilizing	ACRE	$800	21.5	$17,200
c	Mulch	ACRE	$200	21.5	$4,300
d	Tacifier	ACRE	$200	21.5	$4,300
2.2	**Stormwater Protection Structures**				
a	Culverts	NA			$0
b	Pipes	NA			$0
c	Ditches/Berms	FT	$0	0	$0
d	Detention Basins	NA			$0
2.3	**Gas Collection System**				
a	Design	Included In Section 1.0			$0
b	Additional Gas Collection Wells and Connection	EA	$0	0	$0
2.4	**Leachate Collection System**				
a	Design	NA			$0
b	Additional Equipment / Installation	NA			$0
2.5	**Groundwater Monitoring System**				
a	Monitor Well Installation	NA			$0
b	Monitor Well Abandonment	NA			$0
2.6	**Site Security**				
a	Lighting, signs, etc…	NA			$0
b	Fencing and Gates	NA			$0
2.7	**Miscellaneous**				
a	Performance Bonds	LS	$0	0	$0
b	Contract/Legal fees	LS	$1,000	1	$1,000
				Construction Subtotal	$221,590

LS - LUMP SUM
NA - NOT APPLICABLE
EA - EACH
CY - CUBIC YARD
FT - FEET

Total	$225,790
10% Contingency	$22,579
Subtotal Closure Cost	$248,369

PHASE B (West 1/2) - LANDFILL CLOSURE COSTS

Section 1.0 - Engineering **PHASE B**

(ESTIMATED DATE OF CLOSURE=2044, AREA=957,710 FT SQ)

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
1.1	**Topographic Survey**	LS	$5,000	1	$5,000
1.2	**Boundary Survey for Closure**	NA	$500	0	$0
1.3	**Site Evaluation**	NA	$0	1	$0
1.4	**Development of Plans (Cover)**	LS	$1,000	1	$1,000
1.5	**Contract Administration - (Bidding and Award)**	LA	$0	1	$0
1.6	**Administrative Costs - (Certification of Final Cover and Closure Notice)**	LS	$1,500	1	$1,500
1.7	**Project Management - (Construction Observation and Testing)**	LS	$3,000	1	$3,000
1.8	**Monitor Well Consultant Cost**	NA	$0		$0
1.9	**Other Environmental Permit Costs**	NA	$0		$0
				Engineering Subtotal	$10,500

Section 2.0 - Construction **PHASE B**

Item	Description	Unit Measure	Cost/Unit	No. Units	Total Cost
2.1	**Final Cover System**				
2.1.1	***Site Preparation/ Site Regrading***	ACRE	$1,000	21.5	$21,500
2.1.2	*Gas Collection Layer/Pipes*	Included below			
2.1.3	*Low permeability Layer (Soil - If Applicable)*				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	NA			$0
c	Soil Transportation	NA			$0
d	Soil Placement	NA			$0
e	Soil Amendment (compact)	NA			$0
2.1.4	***Low permeability Layer (Synthetic - If Applicable)***				
a	Geotextile	NA			$0
b	GCL	NA			$0
c	Geomembrane (HDPE,PVC,LLDPE,etc…)	NA			$0
2.1.5	***Drainage Layer (Soil - If Applicable)***				
a	Geotextile	NA			$0
b	Sand/Gravel	NA			$0
2.1.6	***Drainage Layer (Synthetic - If Applicable)***				
a	Geotextile	NA			$0
b	Geonet/Geocomposite	NA			$0
2.1.7	***Erosion Protection Soil Layer***				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	CY	$0.50	52,030	$26,015
c	Soil Transportation	CY	$1.00	52,030	$52,030
d	Soil Placement	CY	$0.75	52,030	$39,023
e	Soil Amendment (compact)	CY			$0
2.1.8	***Topsiol Layer***				
a	Soil Purchase	NA			$0
b	Soil Processing (load)	CY	$0.50	17,343	$8,672
c	Soil Transportation	CY	$1.00	17,343	$17,343
d	Soil Placement	CY	$0.75	17,343	$13,008
e	Soil Amendment	NA			$0
2.1.9	***Revegetation***				
a	Seeding	ACRE	$800	21.5	$17,200
b	Fertilizing	ACRE	$800	21.5	$17,200
c	Mulch	ACRE	$200	21.5	$4,300
d	Tacifier	ACRE	$200	21.5	$4,300
2.2	**Stormwater Protection Structures**				
a	Culverts	NA			$0
b	Pipes	NA			$0
c	Ditches/Berms	FT	$0	0	$0
d	Detention Basins	NA			$0
2.3	**Gas Collection System**				
a	Design	Included In Section 1.0			$0
b	Additional Gas Collection Wells and Connection	LS	$0	0	$0
2.4	**Leachate Collection System**				
a	Design	NA			$0
b	Additional Equipment / Installation	NA			$0
2.5	**Groundwater Monitoring System**				
a	Monitor Well Installation	NA			$0
b	Monitor Well Abandonment	NA			$0
2.6	**Site Security**				
a	Lighting, signs, etc…	NA	$1,000	1	$1,000
b	Fencing and Gates	NA	$1,000	1	$1,000
2.7	**Miscellaneous**				
a	Performance Bonds	LS		1	$0
b	Contract/Legal fees	LS	$1,000	1	$1,000
				Construction Subtotal	$223,590

LS - LUMP SUM
NA - NOT APPLICABLE
EA - EACH
CY - CUBIC YARD
FT - FEET

Total	$234,090
10% Contingency	$23,409
Subtotal Closure Cost	$257,499