



June 30, 2011
Project No: 11-03-40

Ms. Iryna Kushnirsky, Environmental Permit Specialist
MC-124
Municipal Solid Waste Division
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Re: Permit Modification to Revise the Groundwater Sampling and Analysis Plan; Blue Ridge Landfill; MSW Permit No. 1505-A; Fort Bend County, Texas.

Dear Ms. Kushnirsky:

This letter is written to request a permit modification to revise the Groundwater Sampling and Analysis Plan (GWSAP) of TCEQ Municipal Solid Waste Permit No. 1505-A. The TCEQ Part I Application Form is provided as Attachment 1. In addition, and in accordance with 30 TAC §330.59(h)(1), a payment of \$150 has been made online through the TCEQ ePay system, and a copy of the receipt is included in Attachment 2. Details of each part of the permit modification request, and information for each part required pursuant to §305.70(e), are provided in the following sections.

SITE INFORMATION

The Blue Ridge Landfill is located at 2200 FM 521, near Fresno in Fort Bend County, Texas. The site was permitted in March 1985 as a Type I Municipal Solid Waste (MSW) disposal facility under MSW Permit No. 1505. A permit amendment for the Blue Ridge Landfill was submitted prior to the effective date (March 27, 2006) of 30 Texas Administrative Code (TAC) Chapter 330 Municipal Solid Waste rules. A final decision was issued for the permit amendment on July 2, 2010. Per 30 TAC §330.1(a)(2), owners and operators of landfill units must submit the modifications required by the March 27, 2006 revisions within one (1) year after the commission's decision on the application has become final and appealable.

PERMIT MODIFICATION

Revisions to the facility GWSAP are requested in this permit modification. The information required pursuant to §305.70(e) is provided below:

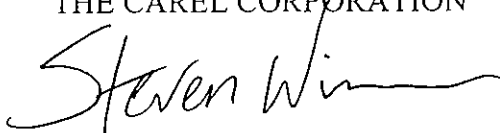
1. A description of the proposed change:
 - a) Modification of the GWSAP to comply with rule revisions adopted March 27, 2006. Analytical parameters for detection monitoring will match the list of constituents of Appendix I of 40 Code of Federal Regulations (CFR) §258 as adopted by the TCEQ rules. The GWSAP will also be modified to address reporting procedures and purge water management criteria according to the new rule requirements.
 - b) Incorporation of low-flow purging and sampling (low-flow) procedures into the GWSAP.
2. An explanation detailing why the change is necessary:
 - a) The modification is necessary to comply with new 30 TAC Subchapter J regulations (effective March 27, 2006), specifically 30 TAC §330.401(b), owners and operators of landfill units shall comply with the 2006 revisions to Subchapter J by applying for a permit modification with public notice in accordance with §305.70(1) to revise any inconsistent permit provisions within two years from the effective date of the 2006 revisions. The permit modification is provided in response to the referenced regulatory provision and any previously inconsistent permit provisions have been eliminated.
 - b) A request to perform low-flow was submitted to the TCEQ under a cover letter dated May 18, 2011. Following TCEQ authorization, low-flow was performed during the May 2011 semi-annual groundwater monitoring event. Field personnel recorded measurements of pH, temperature, specific conductance, turbidity, and water levels while following low-flow procedures. A. Evaluation of the May 2011 low-flow data indicates low-flow is a technically appropriate purging and sampling procedure at the Blue Ridge Landfill. A report discussing the low-flow evaluation is provided as Attachment 3. In order for low-flow purging and sampling to be an acceptable method at the facility, the GWSAP must be revised. Hence, the permit modification is necessary.
3. Appropriate revisions to all applicable narrative pages and drawings of the permit:

Underline/strikeout pages for the revised GWSAP are included as Attachment 4 of this modification request. Clean/replacement pages for the revised GWSAP are included as Attachment 5 of this modification request.

One (1) original and two (2) copies of this modification application are provided for your use. One (1) of the two (2) copies has been provided to the appropriate commission regional office. A copy has been placed in the operating record of the facility.

I, Michael J. Hull, P.G., am a qualified groundwater scientist as defined in 30 TAC §330.3(120). I trust this information is acceptable for approval of this permit modification request. Please call Mr. Harold Barber at (713) 996-2004 or us at (817) 337-0112 if you have any questions.

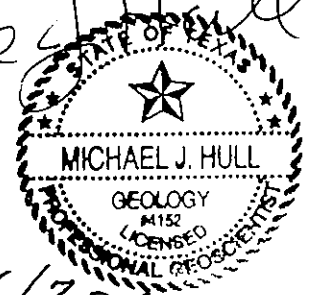
Sincerely,
THE CAREL CORPORATION



Steven J. Wimmer
Geologist



Michael J. Hull, P.G.
Geologist



- Attachment 1 – TCEQ Part 1 Application Form
- Attachment 2 – Receipt for Fee Payment through TCEQ ePay System
- Attachment 3 – Low-Flow Evaluation
- Attachment 4 – Underline/Strikeout Pages – GWSAP
- Attachment 5 – Clean/Replacement Pages – GWSAP

cc: TCEQ Region 12 Office
Harold Barber – Environmental Manager, Republic Services, Inc.
Mark Allendorf, P.G. (ecopy) – Manager, Hydrogeology and Remediation
Optimization - Republic Services, Inc.
Blue Ridge Landfill

ATTACHMENT 1

TCEQ PART 1 APPLICATION FORM



Texas Commission on Environmental Quality

Permit or Registration Application for Municipal Solid Waste Facility

Part I

A. General Information

Facility Name:	Blue Ridge Landfill			
Physical or Street Address (if available):	2200 FM 521			
(City) (County)(State)(Zip Code):	Fresno	Fort Bend	TX	77545
(Area Code) Telephone Number:	254-562-3889			
Charter Number:				

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name ¹ :	Blue Ridge Landfill TX, LP			
Mailing Address:	P.O. Box 879			
(City) (County)(State)(Zip Code):	Fresno	Fort Bend	TX	77545
(Area Code) Telephone Number:	281-835-6142			
(Area Code) FAX Number:	281-835-6146			
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County)(State)(Zip Code):			TX	
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:	CT Corporation System			
Mailing Address:	350 N St Paul Street			
(City) (County)(State)(Zip Code):	Dallas	Texas		75201
(Area Code) Telephone Number:	(214) 979 1172			
(Area Code) FAX Number:	(214) 754 0921			

Application Type:

<input type="checkbox"/> Permit	<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Minor Amendment	
<input type="checkbox"/> Registration	<input checked="" type="checkbox"/> Modification	<input type="checkbox"/> Temporary Authorization	
	<input checked="" type="checkbox"/> w/Public Notice		
	<input type="checkbox"/> w/out Public Notice	<input type="checkbox"/> Notice of Deficiency Response	

¹ The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Facility Classification:

<input checked="" type="checkbox"/> Type I	<input type="checkbox"/> Type IV	<input type="checkbox"/> Type V	<input type="checkbox"/> Type IX
<input type="checkbox"/> Type I AE	<input type="checkbox"/> Type IV AE	<input type="checkbox"/> Type VI	

Activities covered by this application (check all that apply):

<input type="checkbox"/> Storage	<input type="checkbox"/> Processing	<input checked="" type="checkbox"/> Disposal
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Waste management units covered by this application (check all that apply):

<input type="checkbox"/> Containers	<input type="checkbox"/> Tanks	<input type="checkbox"/> Surface Impoundments	<input checked="" type="checkbox"/> Landfills
<input type="checkbox"/> Incinerators	<input type="checkbox"/> Composting	<input type="checkbox"/> Type IV Demonstration Unit	<input type="checkbox"/> Type IX Energy/Material Recovery
<input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Other (Specify)	
<input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Other (Specify)	

Is this submittal part of a Consolidated Permit Processing request, in accordance with 30 TAC Chapter 33?

Yes No

If yes, state the other TCEQ program authorizations requested.

Provide a brief description of the portion of the facility covered by this application. For amendments, modifications, and temporary authorizations, provide a brief description of the exact changes to the permit or registration conditions and supporting documents referenced by the permit or registration. Also, provide an explanation of why the amendment, modification, or temporary authorization is requested.

The modification is necessary to comply with new 30 TAC Subchapter J regulations (effective March 27, 2006), specifically 30 TAC §330.401(b), owners and operators of landfill units shall comply with the 2006 revisions to Subchapter J by applying for a permit modification with public notice in accordance with §305.70(l) to revise any inconsistent permit provisions within two years from the effective date of the 2006 revisions. The permit modification is provided in response to the referenced regulatory provision and any previously inconsistent permit provisions have been eliminated.

A request to perform low-flow was submitted to the TCEQ. Following TCEQ authorization, low-flow was performed during the May 2011 semi-annual groundwater monitoring event. Evaluation of the May 2011 low-flow data indicates low-flow is an appropriate purging and sampling procedure at this Landfill. A report discussing the low-flow evaluation is provided as Attachment 3. In order for low-flow purging and sampling to be an acceptable method at the facility, the GWSAP must be revised. Hence, the permit modification is necessary.

Does the application contain confidential Material? Yes No

If yes, cross-reference the confidential material *throughout the application* and submit as a separate document or binder conspicuously marked "CONFIDENTIAL."

Alternative Language Notice Instructions

For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, trigger a bilingual education program to apply to an entire school district should the requisite alternative language speaking student population exist. However, there may not exist any bilingual students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as a part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location in satisfaction of the school's obligation to provide such a program as a member of a triggered district.

If it is determined that an alternative language notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language.

Alternative Language Notice Application Form: - Not Applicable

Alternative language notice confirmation for this application:

1. Is a bilingual program required by the Texas Education Code in the school district where the facility is located? YES NO

(If NO, alternative language notice publication not required)

2. If YES to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility? YES NO

(If YES to questions 1 and 2, alternative language publication is required; If NO to question 2, then consider the next question)

3. If YES to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location? YES NO

(If Yes to questions 1 and 3, alternative language publication is required; If NO to question 3, then consider the next question)

4. If YES to question 1, would either the elementary school or the middle school nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC '89.1205(g)? YES NO

(If Yes to questions 1 and 4, alternative language publication is required; If NO to question 4, alternative language notice publication not required)

If a bilingual education program(s) is provided by either the elementary school or the middle school nearest to the facility, which language(s) is required by the bilingual program?

Note: Applicants for new permits and major amendments must make a copy of the administratively complete application available at a public place in the county where the facility is, or will be, located for review and copying by the public.

Public place where administratively complete permit application will be located.			
Public Place (e.g., public library, county court house, city hall, etc.):			
Mailing Address:			
(City) (County) (State) (Zip Code):			
(Area Code) Telephone Number:			

B. Facility Location

Except for Type I AE and Type IV AE landfill facilities, for permits, registrations, amendments, and modifications requiring public notice, provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted.
 www.permitmods.com

Local Government Jurisdiction:	Not Applicable
Within City Limits of:	
Within Extraterritorial Jurisdiction of City of:	
Is the proposed municipal or industrial solid waste disposal or processing facility located in an area in which the governing body of the municipality or county has prohibited the disposal or processing of municipal or industrial solid waste? (If YES, provide a copy of the ordinance or order):	
<input type="checkbox"/> YES <input type="checkbox"/> NO	

Provide a description of the location of the facility with respect to known or easily identifiable landmarks.
Not Applicable

Detail the access routes from the nearest United States or state highway to the facility.
Not Applicable

Provide the latitudinal and longitudinal geographic coordinates of the facility.

Latitude	N
Longitude	W
Elevation (above msl)	

Is the facility within the Coastal Management Program boundary?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
---	------------------------------	-----------------------------

Texas Department of Transportation District Location:

TXDOT District Name & Number:	Not Applicable
District Engineer's Name:	
Street or P. O. Box:	
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	
(Area Code) FAX Number:	

The local governmental authority or agency responsible for road maintenance:

Agency Name	Not Applicable
Contact Person's Name:	
Street or P. O. Box:	
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	
(Area Code) FAX Number:	

State Representative:

District Number:	Not Applicable
State Representative's Name:	
District Office Address:	
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	
(Area Code) FAX Number:	

State Senator:

District Number:	Not Applicable		
State Senator's Name:			
District Office Address:			
(City) (County)(State)(Zip Code):			
(Area Code) Telephone Number:			
(Area Code) FAX Number:			

Council of Government (COG) Information:

COG Name:	Not Applicable		
COG Representative's Name:			
COG Representative's Title:			
Street or P. O. Box:			
(City) (County)(State)(Zip Code):			
(Area Code) Telephone Number:			
(Area Code) FAX Number:			

River Basin Information:

River Authority:	Not Applicable		
Contact Person's Name:			
Watershed Sub-Basin Name:			
Street or P. O. Box:			
(City) (County)(State)(Zip Code):			
(Area Code) Telephone Number:			
(Area Code) FAX Number:			

This site is located in the following District of the U.S. Army Corps of Engineers:			
<input type="checkbox"/> Albuquerque, NM	<input type="checkbox"/> Ft. Worth, TX	<input type="checkbox"/> Galveston, TX	<input type="checkbox"/> Tulsa, OK

C. Maps

General

For permits, registrations, and amendments only, submit a topographic map, ownership map, county highway map, or a map prepared by a registered professional engineer or a registered surveyor which shows the facility and each of its intake and discharge structures and any other structure or location regarding the regulated facility and associated activities. Maps must be of material suitable for a permanent record, and shall be on sheets 8-1/2 inches by 14 inches or folded to that size, and shall be on a scale of not less than one inch equals one mile. The map shall depict the approximate boundaries of the tract of land owned or to be used by the applicant and shall extend at least one mile beyond the tract boundaries sufficient to show the following:

each well, spring, and surface water body or other water in the state within the map area;

the general character of the areas adjacent to the facility, including public roads, towns and the nature of development of adjacent lands such as residential, commercial, agricultural, recreational, undeveloped, etc;

the location of any waste disposal activities conducted on the tract not included in the application; and

the ownership of tracts of land adjacent to the facility and within a reasonable distance from the proposed point or points of discharge, deposit, injection, or other place of disposal or activity.

General location maps

For permits, registrations, and amendments only, submit at least one general location map at a scale of one-half inch equals one mile. This map shall be all or a portion of a county map prepared by Texas Department of Transportation (TxDOT). If TxDOT publishes more detailed maps of the proposed facility area, the more detailed maps shall also be included in Part I. Use the latest revision of all maps.

Land ownership map

Provide a map that locates the property owned by adjacent and potentially affected landowners. The maps should show all property ownership within 1/4 mile of the facility, on-site facility easement holders, and all mineral interest ownership under the facility.

Landowners list

Provide the adjacent and potentially affected landowners' list, keyed to the land ownership map with each property owner's name and mailing address. The list shall include all property owners within 1/4 mile of the facility, easement holders, and all mineral interest ownership under the facility. Provide the property, easement holders', and mineral interest owners' names and mailing addresses derived from the real property appraisal records as listed on the date that the application is filed. Provide the list in electronic form, as well.

D. Property owner information

For permits, registrations, amendments, and modifications that change the legal description, a change in owner, or a change in operator only, provide the following:

- (1) the legal description of the facility;
 - (A) the abstract number as maintained by the Texas General Land Office for the surveyed tract of land;
 - (B) the legal description of the property and the county, book, and page number or other generally accepted identifying reference of the current ownership record;
 - (C) for property that is platted, the county, book, and page number or other generally accepted identifying reference of the final plat record that includes the acreage encompassed in the application and a copy of the final plat, in addition to a written legal description;
 - (D) a boundary metes and bounds description of the facility signed and sealed by a registered professional land surveyor;
 - (E) on-site easements at the facility, and
 - (F) drawings of the boundary metes and bounds description; and
- (2) a property owner affidavit signed by the owner.

E. Legal authority – Not Applicable

Provide verification of the legal status of the owner and operator, such as a one-page certificate of incorporation issued by the secretary of state. List all persons having over a 20% ownership in the proposed facility.

Indicate Ownership status of the facility:									
<input type="checkbox"/>	Private	<input type="checkbox"/>	Corporation	<input type="checkbox"/>	Partnership	<input type="checkbox"/>	Proprietorship	<input type="checkbox"/>	Non-Profit Organization
<input type="checkbox"/>	Public	<input type="checkbox"/>	Federal	<input type="checkbox"/>	Military	<input type="checkbox"/>	State	<input type="checkbox"/>	Regional
<input type="checkbox"/>	County	<input type="checkbox"/>	Municipal	<input type="checkbox"/>	Other (Specify)				

Does the operator own the facility units and the facility property? Yes No

If "No," for permits, registrations, amendments, and modifications that changes the legal description, a change in owner, or a change in operators submit a copy of the lease for the use of or the option to buy the facility units or facility property, as appropriate, and identify:

Owner Name:	Not Applicable
Street or P. O. Box:	
(City) (County)(State)(Zip Code):	
(Area Code) Telephone Number:	
(Area Code) FAX Number:	
Charter Number:	

F. Evidence of competency – Not Applicable

For permits, registrations, amendments, and modifications that change the legal description, a change in owner, or a change in operators submit a list of all Texas solid waste sites that the owner and operator have owned or operated within the last ten years.

Site Name	Site Type	Permit/Reg. No.	County	Dates of Operation

Submit a list of all solid waste sites in all states, territories, or countries in which the owner and operator have a direct financial interest.

Site Name	Location	Dates of Operation	Regulatory Agency (Name & Address)

A licensed solid waste facility supervisor, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations will be employed before commencing facility operation.

Provide the names of the principals and supervisors of the owner's and operator's organization, together with previous affiliations with other organizations engaged in solid waste activities.

Name	Previous Affiliation	Other Organization

For landfill permit applications only, evidence of competency to operate the facility shall also include landfilling and earthmoving experience if applicable, and other pertinent experience, or licenses as described in 30 TAC Chapter 30 possessed by key personnel. The number and size of each type of equipment to be dedicated to facility operation will be specified in greater detail on Part IV of the application within the site operating plan.

Landfilling/Earthmoving Equipment Types	Personnel Experience or Licenses
Not Applicable	

For mobile liquid waste processing units, submit a list of all solid waste, liquid waste, or mobile waste units that the owner and operator have owned or operated within the past five years. Submit a list of any final enforcement orders, court judgments, consent decrees, and criminal convictions of this state and the federal government within the last five years relating to compliance with applicable legal requirements relating to the handling of solid or liquid waste under the jurisdiction of the commission or the United States Environmental Protection Agency. Applicable legal requirement means an environmental law, regulation, permit, order, consent decree, or other requirement.

Solid waste, liquid waste, or mobile waste units owned or operated within past 5 years	Texas and federal final enforcement orders, court judgments, consent decrees, and criminal convictions
Not Applicable	

G. Appointments

Provide documentation that the person signing the application meets the requirements of 30 TAC §305.44, Signatories to Applications. If the authority has been delegated, provide a copy of the document issued by the governing body of the owner or operator authorizing the person that signed the application to act as agent for the owner or operator.

H. Application Fees

For a new permit, registration, amendment, modification, or temporary authorization, submit a \$150 application fee.

For authorization to construct an enclosed structure over an old, closed municipal solid waste landfill in accordance with 30 TAC 330 Subchapter T, submit a \$2,500 application fee.

If paying by check, send payment to:

Texas Commission on Environmental Quality
 Financial Administration Division, MC 214
 P. O. Box 13087
 Austin, Texas 78711-3087

Payment maybe made online using TCEQ e-pay at www.tceq.state.tx.us/e-services/	
E-pay confirmation number	

Signature Page

I, Harold Barber, Environmental Manager
(Operator) (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Harold Barber Date: 06-22-11

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, _____, hereby designate _____
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

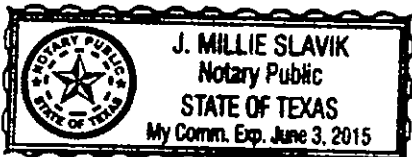
Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said Harold Barber

On this 22 day of June, 2011

My commission expires on the 3 day of June, 2015



J. Millie Slavik
Notary Public in and for
Harris County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)

ATTACHMENT 2

**RECEIPT FOR FEE PAYMENT THROUGH TCEQ
EPAY SYSTEM**

EPAY
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY[» Questions or Comments](#)[Shopping Cart](#)[Select Fee](#)[Search Transactions](#)[Sign Out](#)

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 128422
Trace Number: 582EA000098720
Date: 06/28/2011 09:32 AM
Payment Method: CC - Authorization 000007964S
Amount: \$100.00
Fee Type: MSW PERMIT/REGISTRATION/AMEND/MOD/TEMP/AUTHORIZATIONS APPLICATION FEE
ePay Actor: Cindy Bacon
Actor Email: cbacon@carelcorp.com
IP: 71.244.26.57

Payment Contact Information

Name: Kevin T Carel
Company: The Carel Corporation
Address: 136 Pecan Street, Keller, TX 76248
Phone: 817-337-0112

Site Information

Site Name: BLUE RIDGE LANDFILL
Site Address: 2200 FM 521, FRESNO, TX 77545

Customer Information

Customer Name: BLUE RIDGE LANDFILL TX LP
Customer Address: P O BOX 879, FRESNO, TX 77545

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Last Modified 12/4/08

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[» Questions or Comments](#)[Shopping Cart](#)[Select Fee](#)[Search Transactions](#)[Sign Out](#)

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 128423
Trace Number: 582EA000098720
Date: 06/28/2011 09:32 AM
Payment Method: CC - Authorization 000007964S
Amount: \$50.00
Fee Type: POSTAGE-MWP-WATER QUALITY PMT
ePay Actor: Cindy Bacon
Actor Email: cbacon@carelcorp.com
IP: 71.244.26.57

Payment Contact Information

Name: Kevin T Carel
Company: The Carel Corporation
Address: 136 Pecan Street, Keller, TX 76248
Phone: 817-337-0112

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Last Modified 12/4/08
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ATTACHMENT 3

LOW-FLOW EVALUATION

LOW-FLOW PURGING AND SAMPLING EVALUATION

BLUE RIDGE LANDFILL

MSW Permit No. 1505
Fort Bend County, Texas

Project No: 11-01-17

Prepared for

BFI Waste Systems of North America, Inc.

June 2011

Prepared by



136 Pecan Street
Keller, Texas 76248
(817) 337-0112



CONTENTS

LIST OF TABLES AND ILLUSTRATIONS	iii
1 INTRODUCTION	1
1.1 Monitor Well Details	1
1.2 Purpose	1
2 FIELD METHODOLOGY AND DATA EVALUATION	2
2.1 Monitor Well Purging	2
2.2 Field Measurement Stabilization Criteria	2
2.3 Water Level Drawdown	2
2.4 Field Indicator Parameters	3
2.4.1 Specific Conductance	3
2.4.2 pH	3
2.4.3 Temperature	3
2.4.4 Turbidity	3
2.5 Laboratory Analytical Results	3
3 RECOMMENDATIONS	5
4 REFERENCES	6
APPENDIX 3-A – Depth to Water Time Series Plots	
APPENDIX 3-B – Specific Conductance Time-Series Plots	
APPENDIX 3-C – pH Time Series Plots	
APPENDIX 3-D – Temperature Time Series Plots	
APPENDIX 3-E – Turbidity Time Series Plots	
APPENDIX 3-F – Total Metal Time Series Plots	

Michael J. Hull

6/30/2011

TABLES AND ILLUSTRATIONS

Tables

3-1 Monitor Well Summary

Figures

3-1 Site Map

1 INTRODUCTION

Low-flow purging, also known as “Micropurging”, is a purging and sampling technique that involves acquisition of representative groundwater samples after purging substantially less than the traditional three (3) casing volumes of water. The technique is based on the concept that the groundwater sample is extracted using a device (e.g., submersible pump or sampling tube) located within the screen interval of a well. Water is pumped at a flow rate that creates minimal decrease in the water level in the well and, as a consequence, does not disturb the stagnant water above the pump intake, thus drawing formation water directly into the sampling device.

1.1 Monitor Well Details

Low-flow purging and sampling was conducted at each facility monitor well. The current groundwater monitoring system consists of a network of 26 monitor wells located around the perimeter of the facility. Monitoring occurs in two (2) zones at the facility, designated as “Shallow” and “Deep”. The zone in which each well monitors is noted from the monitor well label by D for the Deep Zone and S for the Shallow Zone. Monitor well designations and information are provided in Table 3-1 and locations are illustrated on the site map provided as Figure 3-1.

1.2 Purpose

The purpose of the evaluation is to:

- Determine whether minimal water drawdown and field measurements of specific conductivity, temperature, pH, and turbidity stabilize while performing low-flow.
- Determine whether low-flow provides representative groundwater samples from the monitor wells at the subject facility.
- Establish appropriate pumping rates.
- Provide the necessary documentation to the TCEQ so that low-flow purging and sampling can be implemented during future sampling events at the facility.

