

GRCB 07



BILL RICHARDSON
GOVERNOR

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ENVIRONMENT DEPARTMENT

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 18, 2007

Mr. Randy Schmaltz
Environmental Supervisor
Giant Refining Company
P.O. Box 159
Bloomfield, New Mexico 87413

Mr. Ed Riege
Environmental Superintendent
Giant Refining Company
Route 3, Box 7
Gallup, New Mexico 87301

**RE: RIVER TERRACE VOLUNTARY CORRECTIVE MEASURES
BIOVENTING SYSTEM ANNUAL REPORT
JANUARY 2006 THROUGH DECEMBER 2006; HWB-GRCB-07-001
GIANT REFINING COMPANY, BLOOMFIELD REFINERY
EPA ID# NMD000333211**

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) received Giant Refining Company's Bloomfield Refinery (GRCB) *River Terrace Voluntary Corrective Measures Bioventing System Annual Report* (Report), dated January, 2007. NMED hereby approves this Report with the following requirements for all future monitoring.

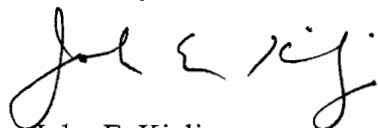
1. GRCB must continue to submit a semi-annual and annual report to NMED and the Oil Conservation Division (OCD). The Reports must be similar to the Six-month Start Up and Annual Reports which have summarized monitoring activities and analytical results occurring at the River Terrace Bioventing System. The semi-annual report is due August 27, 2007 and the annual report is due January 28, 2008.
2. GRCB must continue to monitor temporary wells TP #3, TP #9, TP #10, TP #11, TP #12, and TP #13 for hydrocarbons (as specified in Table 2 attached to this letter) even though these temporary wells are located outside the estimated area of influence of the bioventing system.

Randy Schmaltz
April 18, 2007
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3. GRCB must adhere to all monitoring requirements established in Table 1 and Table 2, attached to this letter.
4. GRCB must sample TP-7 during the next round of sampling at the River Terrace. Samples were not collected from TP-7 this past year with the assumption that this well was screened and completed in the existing slurry wall and does not yield an appreciable volume of water. The boring log for TP-7 does not provide any indication that it was completed in the slurry wall since the presence of bentonite slurry is not identified. The possible reason for TP-7 yielding low volumes of water may be that it's screened in silty fine sand. The boring log indicated a depth to water of 5.7 feet below ground surface and the total depth of the well is 10 feet (enough water for sample collection). Similar conditions exist at dewatering well DW-1. This well was screened in silty sand and clayey silt and therefore may not yield a large volume of water; however, this well continues to be sampled by GRCB personnel.
5. GRCB must make comparisons to NMED's TPH Screening Guidelines in the semi-annual and annual reports and all subsequent reports. The TPH Screening Guidelines can be found using the following link: <http://www.nmenv.state.nm.us/hwb/guidance.html>.

If you have any questions regarding this letter, please contact Hope Monzeglio at (505) 476-6045.

Sincerely,



John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

JEK:hm

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
W. Price, OCD
B. Wilkinson, EPA Region 6
C. Hurtado, GRCB
File: GRCB 2007 and Reading
HWB-GRCB-07-001

River Terrace Bioventing System Monitoring

Table 1 - Groundwater Monitoring

Location	Matrix	DTW/DTP	Temp	pH	Cond	DO	ORP	Sampling	Sampling
MW-49	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
DW-1	GW	Q	Q	Q	Q	Q	Q	Q, B, GRO, DRO, Pb, Hg	A- Cr, Ba
TP-1	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-2	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-3	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-5	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-6	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-7	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-8	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-9	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-10	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-11	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-12	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
TP-13	GW	Q	Q	Q	Q	Q	Q	Q-B, GRO, DRO, Pb	A- Cr, Ba
GAC Inf	EW							Q-B, GRO, DRO	
GAC 1 Eff	EW							W*M - B, GRO, DRO	
GAC 2 Eff	EW							Q-B, GRO, DRO	

Field Parameters

DTW - depth to water measurement
 DTP - depth to product measurement
 T - temperature
 Cond - electrical conductivity
 DO - dissolved Oxygen
 ORP - oxidation Reduction Potential

Sampling Frequency

Q - quarterly
 A - annual
 W*M - Weekly until breakthrough is detected; monthly thereafter

Analytical Analysis

B - BTEX and MTBE by EPA Method 8021B
 GRO - gasoline range organics by EPA Method 8015B
 DRO - diesel range organics by EPA Method 8015B
 Pb & Cr - lead and chromium EPA Method 6010
 Ba - barium

Matrix

GW - groundwater
 EW -extracted groundwater

**River Terrace Bioventing System Monitoring
Table 2 - Soil Vapor Monitoring**

Location	Matrix	% CO ₂	%O ₂	Organic Vapors PID	*Pressure	Analytical
MW-49	A	Q	Q	Q	Q	Q-b, GRO
DW-1	A	Q	Q	Q	Q	Q-b, GRO
TP-1	A	Q	Q	Q	Q	Q-b, GRO
TP-2	A	Q	Q	Q	Q	Q-b, GRO
TP-3	A	Q	Q	Q	Q	Q-b, GRO
TP-5	A	Q	Q	Q	Q	Q-b, GRO
TP-6	A	Q	Q	Q	Q	Q-b, GRO
TP-7	A	Q	Q	Q	Q	Q-b, GRO
TP-8	A	Q	Q	Q	Q	Q-b, GRO
TP-9	A	Q	Q	Q	Q	Q-b, GRO
TP-10	A	Q	Q	Q	Q	Q-b, GRO
TP-11	A	Q	Q	Q	Q	Q-b, GRO
TP-12	A	Q	Q	Q	Q	Q-b, GRO
TP-13	A	Q	Q	Q	Q	Q-b, GRO
BV-1	A	Q	Q	Q	Q	
BV-2	A	Q	Q	Q	Q	
BV-3	A	Q	Q	Q	Q	
BV-4	A	Q	Q	Q	Q	
BV-5	A	Q	Q	Q	Q	
BV-6	A	Q	Q	Q	Q	
BV-7	A	Q	Q	Q	Q	
BV-8	A	Q	Q	Q	Q	
BV-9	A	Q	Q	Q	Q	
BV-10	A	Q	Q	Q	Q	
BV-11	A	Q	Q	Q	Q	
BV-12	A	Q	Q	Q	Q	
BV-13	A	Q	Q	Q	Q	

Field Parameters

% CO₂ - percent carbon dioxide

% O₂ - percent oxygen

PID - photoionization detector

Sampling Frequency

Q - quarterly

Matrix

A - soil gas

Analytical Analysis

b - BTEX by EPA Method 8021B

GRO - gasoline range organics
by EPA Method 8015B

*Pressure - Full system and individual well injection pressure must be recorded during each monitoring event.

During May 2007 -Perform In-SITU RESPIRATION TEST

Must be conducted under similar conditions as the 5/06 respiration test (e.g. similar groundwater levels and river levels)

Shutdown blowers and monitoring oxygen/carbon dioxide levels in TP-1, 2, 5, 6, 8, 9, and each of the 13 BV wells.

Monitor every 1/2 hour for first eight hours, then every 12 hours for the remainder of the 72 hour respiration test.