

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Thursday, July 06, 2006 3:32 PM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Jim Lieb; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Update 7/6/06
Attachments: HALL9759_EP2IN62206.pdf; HALL9579_EP2IN60806.pdf; HALL9653_EP2IN61506.pdf; HALL9678_NEOCDLF2QTR06.pdf

1. NAPIS running well, no problems noted.
2. All five aerators in place and running.
3. Air driven pump holding low level in OAPIS.
4. Weekly sample results as well as 2nd quarter 2006 Northeast OCD Land Farm results attached.



COVER LETTER

Wednesday, June 28, 2006

JUL 6 2006

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: NE OCD Landfarm 2nd Qtr. 2006

Order No.: 0606174

Dear Steve Morris:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 6/16/2006 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jun-06

CLIENT: Giant Refining Co	Client Sample ID: NEOCDLF#17
Lab Order: 0606174	Collection Date: 6/15/2006 8:00:00 AM
Project: NE OCD Landfarm 2nd Qtr. 2006	Date Received: 6/16/2006
Lab ID: 0606174-01	Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2006 3:13:26 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2006 3:13:26 PM
Surr: DNOP	79.3	61.7-135		%REC	1	6/20/2006 3:13:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: HLM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2006 10:38:39 PM
Surr: BFB	91.8	81.7-127		%REC	1	6/19/2006 10:38:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: HLM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	6/19/2006 10:38:39 PM
Benzene	ND	0.050		mg/Kg	1	6/19/2006 10:38:39 PM
Toluene	ND	0.050		mg/Kg	1	6/19/2006 10:38:39 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2006 10:38:39 PM
Xylenes, Total	ND	0.15		mg/Kg	1	6/19/2006 10:38:39 PM
Surr: 4-Bromofluorobenzene	85.9	76.8-115		%REC	1	6/19/2006 10:38:39 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jun-06

CLIENT: Giant Refining Co	Client Sample ID: NEOCDLF#72
Lab Order: 0606174	Collection Date: 6/15/2006 8:30:00 AM
Project: NE OCD Landfarm 2nd Qtr. 2006	Date Received: 6/16/2006
Lab ID: 0606174-02	Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	60	10		mg/Kg	1	6/21/2006 12:31:15 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/21/2006 12:31:15 PM
Surr: DNOP	152	61.7-135	S	%REC	1	6/21/2006 12:31:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: HLM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2006 11:07:47 PM
Surr: BFB	94.9	81.7-127		%REC	1	6/19/2006 11:07:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: HLM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	6/19/2006 11:07:47 PM
Benzene	ND	0.050		mg/Kg	1	6/19/2006 11:07:47 PM
Toluene	ND	0.050		mg/Kg	1	6/19/2006 11:07:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2006 11:07:47 PM
Xylenes, Total	ND	0.15		mg/Kg	1	6/19/2006 11:07:47 PM
Surr: 4-Bromofluorobenzene	92.0	76.8-115		%REC	1	6/19/2006 11:07:47 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

QA/QC SUMMARY REPORT

Client: Giant Refining Co
 Project: NE OCD Landfarm 2nd Qtr. 2006

Work Order: 0606174

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8015									
Sample ID: MB-10632		MBLK							
Batch ID: 10632									
Analysis Date: 6/20/2006									
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-10632		LCS							
Analysis Date: 6/20/2006									
Diesel Range Organics (DRO)	39.33	mg/Kg	10	78.7	64.6	116			
Sample ID: LCSD-10632		LCSD							
Analysis Date: 6/20/2006									
Diesel Range Organics (DRO)	41.81	mg/Kg	10	83.6	64.6	116	6.11	17.4	

Method: SW8015									
Sample ID: MB-10631		MBLK							
Batch ID: 10631									
Analysis Date: 6/19/2006									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-10631		LCS							
Analysis Date: 6/19/2006									
Gasoline Range Organics (GRO)	19.90	mg/Kg	5.0	79.6	73.4	115			

Method: SW8021									
Sample ID: MB-10631		MBLK							
Batch ID: 10631									
Analysis Date: 6/19/2006									
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10						
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.15						
Sample ID: LCS-10631		LCS							
Analysis Date: 6/19/2006									
Methyl tert-butyl ether (MTBE)	0.3825	mg/Kg	0.10	109	67.9	135			
Benzene	0.2930	mg/Kg	0.050	91.6	77.5	123			
Toluene	1.783	mg/Kg	0.050	89.2	85.3	129			
Ethylbenzene	0.3907	mg/Kg	0.050	100	79.6	121			
Xylenes, Total	2.170	mg/Kg	0.15	103	80	130			

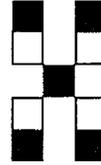
Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

CHAIN-OF-CUSTODY RECORD

Client: *Giant Refining Company Arizona*
 Address: *Rt 3 Box 7 Gallup NM 87301*
 Phone #: *5057223833*
 Fax #: *5057220210*

QA / QC Package:
 Std Level 4
 Other: _____
 Project Name: *NE-OC D Land Farm 2nd QTR, 2006*
 Project #:
 Project Manager: *Steve Abundis*
 Sampler: *Steve Abundis*
 Sample Temperature: *2*



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

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	BTEX + MTBE + THMs (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8810 (PNA or PAH)	RCFA 8 Metals	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Heads (Y or N)	
					HgCl ₂	HNO ₃																
<i>4/15/06</i>	<i>0800</i>	<i>Soil</i>	<i>NEOCDF#17</i>	<i>2</i>				<i>0606174</i>	<i>1</i>	<i>X</i>	<i>X</i>											
<i>"</i>	<i>0830</i>	<i>"</i>	<i>" #72</i>	<i>2</i>					<i>2</i>	<i>X</i>	<i>X</i>											

Date: *4/15/06* Time: *1050* Relinquished By: (Signature) *Steve Abundis*
 Date: _____ Time: _____ Relinquished By: (Signature) _____
 Received By: (Signature) *6-16-06*
 Received By: (Signature) *1120*

Remarks:

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Tuesday, May 30, 2006 7:08 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Jim Lieb; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Weekly Update for Week of 5/26/2006
Attachments: HALL9255_EP2IN051806.pdf; HALL9215_EP2IN051106.pdf

Work continues on Pond #2 bank clean up.
We will get samples this week and include pictures of sampling with our next update.

Vector Arizona will be on site starting 5/30/06 to work on engineering for the firewater/stormwater pond.

The latest analysis is included from Hall Lab.

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Thursday, May 11, 2006 1:56 PM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Jim Lieb; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Weekly Update 5/11/06
Attachments: HALL9051_Pond2In042706.pdf; HALL8994_MonthlyNMED042806.pdf

Pond # 2 clean up was started Sunday May 7th, 2006, and continues.

The latest analysis from Hall Lab. is attached.

The NAPIS has been running without any problems noted.

The transfer pump at the OAPIS has been keeping the level down and no flow has gone to Aeration Lagoon # 1.

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Thursday, April 27, 2006 2:34 PM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Weekly Update

The Ciniza Weekly Update (week of 4/24/06)

Action Items completed or nearing completion:

The concrete curbing/diking at the process area is 50% completed by RefChem.

The stained soil around the New API Separator was cleaned up.

Amperage of aerators was checked by Giant electricians - each aerator checked out at equal to 15 amps or higher.

50% of weeds have been cleared around the flare. Remainder should be cleared over the weekend. Photos of the brush clearing will be emailed next week.

RefChem will begin the cleaning of the banks of Evaporation Pond #2 early next week.

A work order has been written for compaction of the new berms.

The dye trace project is progressing - Ciniza Refinery will issue a report to OCD and the HWB when completed.

An RFQ/RFP has been written and submitted to two hydrogeological engineering consultants for preparation of an Engineering Plan for the proposed new stormwater/firewater pond.

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Monzeglio, Hope, NMENV

From: Jim Lieb [jlieb@giant.com]
Sent: Friday, March 10, 2006 3:27 PM
To: Chavez, Carl J, EMNRD; Foust, Denny, EMNRD; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Cc: Steve Morris; Ed Riege
Subject: Weekly Update for Week of March 6, 2006

Hello All:

Steve Morris is out today so in his absence I am preparing the weekly update today.

1. We have determined the average flow from the NAPIS to Aeration Lagoon 1 on a daily (133,900 gpd), weekly (937,400 gpw), and monthly (28.12 MG per month) based on 93 gpm as determined by the following information:

Total flow from Pond 2 out = 123 gpm.
Flow from boiler plant directly to Pond 2 = 22 gpm.
This gives us the flow from pond 1 to pond 2 as 101 gpm.
That should be close to the flow from the Aeration Lagoons to Pond 1.

The flow from the Travel Center to Aeration Lagoon 1 = 8 gpm.
If we subtract that from the 101gpm, we should have the approximate flow from the NAPIS thru the benzene strippers into Aeration Lagoon 1 as 93 gpm.

This is the information requested in question a. and f. in the NMED-HWB letter of February 23, 2006. We are working on answers for the remaining questions in the letter. I thought it would be nice to get this information to you as we get it.

2. The pumping of water from the OAPIS to the NAPIS is working fine.

I have attached the Hall Environmental Analysis Lab report for the Evaporation Pond #2 BOD and COD sampling. If you have any questions please contact me at (505) 722-3227 and I will do my best to answer them. Steve is expected to return this Monday.

Sincerely,

Jim Lieb
Environmental Engineer
Giant-Ciniza

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Monzeglio, Hope, NMENV

From: Jim Lieb [jlieb@giant.com]
Sent: Thursday, March 02, 2006 1:02 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Foust, Denny, EMNRD; Price, Wayne, EMNRD; Johnny Sanchez; Steve Morris; Ed Riege
Subject: Ciniza Weekly Update Weeks of 1/31/06, 2/9/06 and 2/15/06

Steve Morris is out this week so in his absence I am preparing the weekly updates today.

Updates:

1. As of yesterday, Fuhs Trucking has completed 70% of cleanup of the aeration lagoons and evaporation ponds.
2. The chopper pump installation was completed and has been operating very well.
3. Last week Steve took a snapshot reading from a temporary flow measuring device (90 degree notch) at the inlet of evaporation pond 2 and got a flow of 21/2 inches in the notch which correlates to a flow of 21.7 gpm based on Cameron Hydraulic curve chart.
4. On 2/10/06, Steve used a bucket and stopwatch to get a snapshot measurement of the flow entering aeration lagoon 1 from the OAPIS. He measured 1.6 gallons at 23.3 seconds which correlates to 4.12 gpm.
5. Ciniza has contracted Vector Arizona to provide options and engineering for the installation of a liner and leak detection system in the OAPIS.

I have attached Hall Environmental Analysis Lab reports the weeks of 1/31/06, 2/9/06 and 2/15/06. Samples were taken on 2/23/06 for the OAPIS and Pond #2 Inlet but the results have not as yet been received from Hall. If you have any questions please contact me at (505) 722-3227 and I will do my best to answer them. Steve is expected to return this Monday.

Sincerely,

Jim Lieb
Environmental Engineer
Giant-Ciniza

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Monzeglio, Hope, NMENV

From: Chavez, Carl J, EMNRD
Sent: Wednesday, February 22, 2006 11:37 AM
To: Ed Riege
Cc: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Steve Morris; Price, Wayne, EMNRD
Subject: RE: Pilot Station Effluent Summary

Ed:

Good morning. The OCD has reviewed your e-mail related to the above subject with attachments dated February 2, 2006, in response to the OCD's e-mail dated December 28, 2005.

The OCD notices that the letter dated December 12, 1986, references a 1970 publication and the algorithms with assumptions appear valid; however, in future evaluations of the treatment system, there should be more current waste water treatment models available to evaluate Giant's treatment system capacity. Giant may want to consider using current modeling methods in the evaluation of its treatment system.

Giant used flow rates from the travel center and refinery in its calculations of 50,400 gpd and 117,800 gpd, respectively. However, the more recent flow rates from the February 2, 2006 letter are actually around 7,200 gpd, and 151,200 gpd, respectively. The total combined flow rate in 1986 compared to 2006 is 168,200 versus 158,400 respectively; however, the [BOD] is much higher today than in 1986. The OCD notices that flow rates do not reflect maximum flow capacities from the travel center or refinery. Also, the OCD assumes that Cells # 1 and 2 appear to correspond with Aeration Lagoons 1 and 2 (ALs 1 & 2).

As mentioned by Giant, the loading from the OAPI and NAPI was not reflected in the 1986 letter. More recently, the NMED- HWB has required that the OAPI effluent be routed to the NAPI Unit for treatment, based on organic contamination in the influent to the OAPI Unit, which is routed untreated into AL1, and this may also need to be considered in future calculations. Why is the flow rate from the travel center so low, i.e., 5 gpm, and is this the average flow rate? In addition, the OCD is concerned about Giant's ability to increase its treatment capacity, since the refinery has been operating at about 1/2 its treatment capacity; however, at 1/2 capacity, the BOD loading appears to be within the scope of the 1986 letter. What will happen at maximum flow capacities from the travel center and refinery at present day [BOD]?

Consequently, the OCD is in agreement with Giant's February 2, 2006 letter to determine if there are actually any issues with the BOD loading and the ability of Giant's treatment system to handle capacities. More specifically, the OCD is concerned about Giant's treatment system and its ability to handle current and maximum flow capacities. For example, Giant should be looking at maximum flow rates with concentration assumptions from historical sampling of [BOD], etc. Giant should confirm that all aerators in the ALs are functioning as designed and have been and are in operation or fully functional today. If not, the OCD would like to know what operation and maintenance problems associated with the aeration system are, if any.

In addition, for a more current assessment of Giant's treatment capacity, the OCD would like to request that Giant consider monitoring the AL influent and effluent for [Phenol] to determine the % reduction of Phenol. Perhaps Phenol concentrations can be monitored at the influent and effluent of AL1 and at the effluent of AL2? What does Giant think about this? Phenol has been commonly monitored in refinery treatment systems to evaluate the overall efficiency of the treatment system.

The OCD agrees with the consideration in the December 12, 1986 letter about the consideration of several water conservation projects. Have any water conservation projects been implemented at Ciniza?

Finally, July 2006 is acceptable to the OCD. We look forward to receipt of your findings

and the consideration of our questions and concerns provided above. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/> (Pollution Prevention Guidance is under "Publications")

-----Original Message-----

From: Ed Riege [mailto:eriego@giant.com]
Sent: Thursday, February 02, 2006 8:38 AM
To: Chavez, Carl J, EMNRD
Cc: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Steve Morris
Subject: Pilot Station Effluent Summary

<<_0117081617_001.pdf>> <<RESPONSE LETTER OCD BOD jan06.doc>>

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Monzeglio, Hope, NMENV

From: Ed Riege [eriege@giant.com]
Sent: Thursday, February 02, 2006 11:01 AM
To: Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Cc: Foust, Denny, EMNRD; Monzeglio, Hope, NMENV; Steve Morris; Ed Rios; John Laurent; Stan Fisher; Tom Mascarenas; Joel Quinones
Subject: Ciniza Refinery Update



BERM-SHEET1_FIN BERM-SHEET2_FIN Tech Memo - Giant -
 AL.pdf (237 KB)... AL.pdf (69 KB) Ciniza Ber...

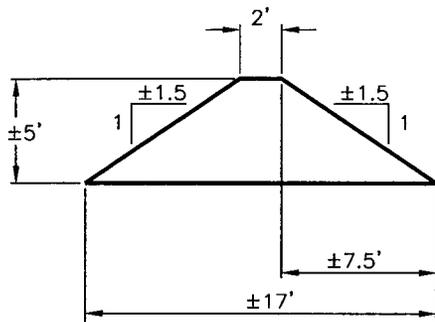
Hi Carl and Wayne:

I wanted to give you an update on some of the issues we had talked about in the past inspections and emails.

1. A copy of the revised SWPPP/ storm water site maps along with a response to Powell's inspection report was sent to you yesterday.
 2. A pilot effluent summary was sent to you this morning.
 3. Giant has had trouble getting Fuhs onsite due to other contract obligations. Dennis Fuhs has committed to starting work at Ciniza the week of February 13. We will have him work on the following projects in this order:
 - a. Lagoon shore clean up.
 - b. Secondary containment berm around the LPG bullet tanks and natural gasoline tanks. See attached files for design specifications.
 - c. Giant will be going out for bids to repair damaged concrete berms and add additional concrete berms to the east side of process area. In the interim Fuhs will install a temporary dirt berm along the east side until the concrete work can be completed.
 - d. The berm will be improved in the grassy area north of the LPG tank farm and fire training area.
 - e. Berm improvement in railcar loading area to keep run-on from entering area.
 - f. Other improvements to be done by Giant employees include a marketing tank berm repair, berm construction around the fire training diesel tank and the firewater storage tank and berm improvement at the diesel fueling station. Work orders have been written for these repairs.
 4. The chopper pump installation at the new API has been completed. The expected date of startup of this pump is February 8, 2006 which will allow for concrete curing and steam tracing and insulation to be completed.
 5. The closure report for the Railroad Rack Lagoon is being completed and will be sent out to Hope by February 15. It is being worked on by the new environmental engineer Ciniza has hired, his name is Jim Lieb, he has a chemical engineering degree and he is from Michigan. He will be onsite beginning February 13.
 6. Operations has ordered 10 plumbers plugs to be installed in the storm water drains at strategic locations in the operations. Operations is still researching where to install them and if more may be required.
 7. Technical Services is researching whether a tracer could be used to pinpoint and repair the secondary containment liner for the new API separator. They are still waiting for a response from a tracer company, otherwise our only choice will be to dig the liner up.
- <<BERM-SHEET1_FINAL.pdf>> <<BERM-SHEET2_FINAL.pdf>> <<Tech Memo - Giant - Ciniza Berm Design.pdf>> Thanks, Ed Riege

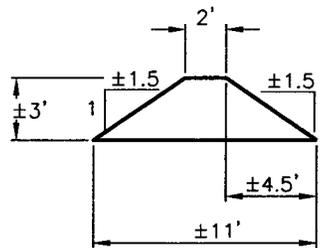
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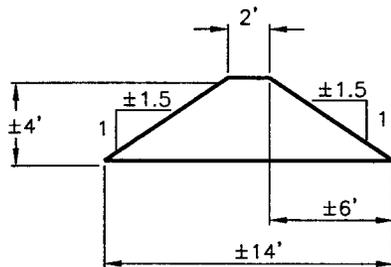
A-A'

5-FOOT HIGH BERM



C-C'

3-FOOT HIGH BERM



B-B'

4-FOOT HIGH BERM

CONSTRUCTION SPECIFICATIONS

1. REMOVE VEGETATION AND OTHER DELETERIOUS MATERIALS ALONG BERM FOOTPRINT.
2. CONSTRUCT CONTAINMENT BERM WITH FINE GRAINED, LOCAL BORROW SOILS.
3. COMPACT BERM MATERIAL AT 1 FOOT LIFTS USING MECHANICAL METHODS SUCH AS AN EQUIPMENT BUCKET, EQUIPMENT TIRES, OR A TAMPER COMPACTOR.
4. MOISTURE CONDITION BERM CONSTRUCTION MATERIAL DURING COMPACTION OPERATIONS.
5. BERM SLOPES MAY BE UP TO 1H:1V DEPENDING ON MATERIAL COMPACTION.
6. IF EXISTING PIPELINES CANNOT BE LIFTED OVER THE BERM, PLACE A WATER-STOP AROUND THE PIPE BEFORE BURYING WITHIN THE BERM.

REFERENCE 	ENGINEER'S SEAL 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Rev</td> <td style="width: 45%;">Description</td> <td style="width: 10%;">BY</td> <td style="width: 10%;">Date</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Rev	Description	BY	Date																	Scale: N.T.S. Designed by: DK/JM Drawn by: AK Checked by: DK Approved by: DK	Issued for: <p style="text-align: center;">GIANT INDUSTRIES, INC.</p>	Issued by: <div style="text-align: center;"> </div> <p style="font-size: small; text-align: center;">7222 North Oracle Road, Tucson, Arizona 85704 (520) 597-7723 (520) 597-7724 fax</p>	Title: <p style="text-align: center;">BERM CONSTRUCTION CINIZA REFINERY</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Project: BERM DESIGN CINIZA REFINERY</td> <td style="width: 20%;">Project no.: 05-90-0501</td> <td style="width: 30%; text-align: center;">Drawing</td> </tr> <tr> <td>Location: CALLUP, NEW MEXICO</td> <td>Date: 1/20/06</td> <td style="text-align: center;">2 SHEET 2 OF 2</td> </tr> </table>	Project: BERM DESIGN CINIZA REFINERY	Project no.: 05-90-0501	Drawing	Location: CALLUP, NEW MEXICO	Date: 1/20/06	2 SHEET 2 OF 2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">2 REVISION</td> </tr> </table>	2 REVISION
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2 REVISION																																		

TECHNICAL MEMORANDUM

TO: Giant Industries, Inc.
ATTENTION: Ed Riege
FROM: David Krizek
DATE: January 20, 2006
SUBJECT: **Berm Design - Ciniza Refinery**
ATTACHMENTS Drawing 1 – Location of Berm
Drawing 2 – Berm Construction
PROJECT NO. **05-50-0501**

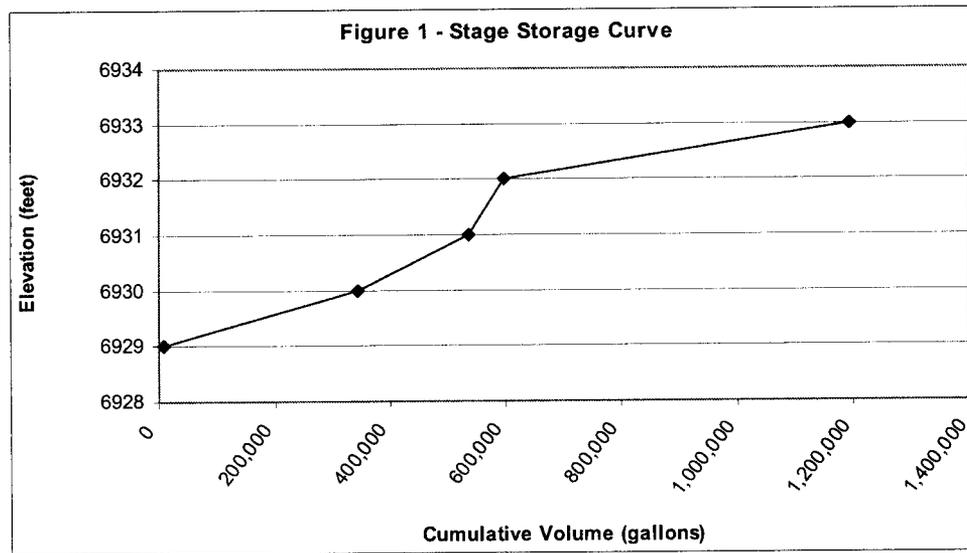
1.0 INTRODUCTION

As per your request, Vector Arizona (Vector) has completed design specifications for a containment berm around the LPG bullet tanks and adjacent vertical tanks. The requirements for the berm were to contain 130% of the largest tank within the area. This tank holds 878,200 gallons, therefore the containment needs to hold 1,141,660 gallons. A stage storage curve analysis was completed for the area and is summarized in Table 1 and Figure 1 below.

Table 1 - Stage Storage Curve Calculations

Elevation Change (ft)		Area (ft ²)	Actual Area ¹ (ft ²)	Volume (ft ³)	Cumulative Volume (ft ³)	Cumulative Volume (gallons)
From	To					
6928	6929	1,050	1,050	1,050	1,050	7,855
6929	6930	46,719	44,700	44,700	45,750	342,233
6930	6931	29,172	25,974	25,974	71,724	536,531
6931	6932	14,654	8,052	8,052	79,776	596,768
6932	6933	6,928	6,929	6,929	86,705	1,193,727

1) The actual area was calculated by subtracting the foot print area of the vertical tanks and pipeways from the area within the berm.



Based on the storage curve analysis, a total of 1,193,727 gallons will be contained by building a berm to an elevation of 6933 feet. This volume (1,193,727 gallons) is approximately 878,200 gallons plus 0.5 feet of freeboard and also exceeds the minimum required volume of 1,141,660 gallons. Thus, the minimum berm height requirements for the area are as follows:

- ◆ 5 feet and 4 feet along the northern and western boundaries, and
- ◆ 3 feet along the eastern boundary.

Varying berm heights are based on the sloping topography of the tank area. Drawing 1 included with this Technical Memorandum details the location of the different berm heights, and Drawing 2 provides berm construction specifications.

Vector appreciates the opportunity to work on this project and looks forward to future correspondence with Giant.

Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Friday, January 27, 2006 11:34 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Weekly Update Week of 01/27/2006



HALL7508_OAPIS010606.pdf (490 ...
HALL7509_OAPIS011306.pdf (402 ...

1) During time periods when there are no storm events, the OAPIS has almost zero flow of water in to Aeration Lagoon #1. I will devise a way to measure this flow and include it in the weekly update as soon as I can. It would appear we have been sampling essentially the same stagnant water week after week.

2) We will be installing a 90 degree flow measuring device (notch) at the inlet of evaporation pond 2 on the water stream from the boiler plant. This will enable us to get better numbers on the flow rate out of the new API separator.

3) Work continues on the Chopper pump installation. The contractor will be working over the weekend on concrete and grout to allow these materials time to cure and minimize down time.

4) Lab analysis from weekly water samples received to date attached.

<<HALL7508_OAPIS010606.pdf>> <<HALL7509_OAPIS011306.pdf>> If you have any questions please give me a call at 505-722-0258.

Thanks, Steve Morris

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Friday, January 20, 2006 10:57 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Weekly Update 01-20-06



HALL7368_POND2IHALL7397_NMED12HALL7406_AL2EP01
N010606.pdf (10... 2805.pdf (609 K... 0606.pdf (315 ...

1) Work has started preparing the oil sump at the NAPIS for Chopper Pump installation. I will update everyone on this email distribution list as we get into the project and have a better picture of the completion date.

2) Ciniza Operations and Maintenance personnel continue to keep a close eye on the NAPIS and no unexpected problems are noted.

3) Attached are the water sample results I have received to date.

If you have any questions, please give me a call at 505-722-0258.

Thanks,
Steve Morris

<<HALL7368_POND2IN010606.pdf>> <<HALL7397_NMED122805.pdf>> <<HALL7406_AL2EP010606.pdf>>

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Thursday, January 12, 2006 9:38 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza Weekly Update Week 1/13/05



HALL7199_AL2EP11 HALL7290_OAPIS1 HALL7297_OAPIS1
21205.pdf (227... 21905.pdf (374 ... 21305.pdf (355 ...

- 1) The NAPIS continues to be run on the west bay. No problems noted.
- 2) Work is continuing on the east bay of the NAPIS and is expected to be complete no later than Tuesday Jan. 17, 2005. Problems with internal mechanical components in the east bay made it necessary to delay putting it back in service.
- 3) Fuhs Const. plans to be on site the week of Jan. 16, 2005 to start clean up of the Aeration Lagoons and Evaporation Ponds as needed.
- 4) Attached are the analytical results received to date.

<<HALL7199_AL2EP1121205.pdf>> <<HALL7290_OAPIS121905.pdf>> <<HALL7297_OAPIS121305.pdf>>

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Friday, January 06, 2006 2:05 PM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Ciniza weekly update 1/6/06



HALL7199_AL2EP11
21205.pdf (227...

- 1) Work continues on the east bay of the new API separator.
The east bay is expected to be completed next Tuesday the 10th.
 - 2) Chopper pump installation will commence as soon as the east bay of the NAPIS is put back in service. (Wednesday the 11th)
 - 3) Analysis for AL-2 to EP-1 dated 12/12/05 is attached.
- <<HALL7199_AL2EP1121205.pdf>>

If you have any questions, please give me a call at 505-722-0258.
Thanks, Steve Morris

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Friday, December 30, 2005 10:35 AM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Foust, Denny, EMNRD; Ed Riege; Monzeglio, Hope, NMENV; Johnny Sanchez; Steve Morris; Price, Wayne, EMNRD
Subject: Weekly update 12-30-05



HALL7036_AL2EP11HALL7106_SW1207
20705.pdf (262... 05.pdf (407 KB)...

1) Work continues on the east bay of the New API separator.
2) The new "Chopper Pump" is onsite. The piping has been fabricated and is being hydro tested today.
Pump installation is expected to occur the week of Jan. 3rd, 2006.
I will keep everyone on this distribution list posted as to actual pump installation completion date and date of being commissioned.
3) Attached are lab results for the OAPIS and AL-2 to EP-1 caught on 12/07/2005.
<<HALL7036_AL2EP1120705.pdf>> <<HALL7106_SW120705.pdf>>

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Friday, December 09, 2005 12:29 PM
To: Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Dave Cobrain (E-mail); Price, Wayne, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Johnny Sanchez; Steve Morris; Ed Rios; John Laurent; Jim Hallock
Subject: Ciniza Weekly Update 12/9/2005



HALL6848_AL2EP1 HALL6846_SW1101HALL6745_AL12EP1
11 14.pdf (148... 6.pdf (392 KB) Bank.pdf (289 ...

- 1) The new API separator continues to run properly. The east bay of the new API separator was taken out of service and work started on Monday the 5th of Dec., 2005. The bay will be inspected and repaired as needed.
- 2) Vector Arizona Inc. completed the field portion of the stormwater site map on Friday the 2nd of Dec., 2005. They plan to have the first draft to us in a couple of weeks.
- 3) Attached are water sample results from the week of 11/14/2005 and the results are below RCRA limits.
- 4) A composite sample of bank material from Aeration Lagoons 1 & 2, and Evaporation pond 1 was taken and analytical indicates this material is RCRA nonhazardous, (analysis attached). A TPH 418.1 is being run on this sample to profile the material for offsite disposal.
- 5) GWM 2 & 3 were inspected this week and both remain dry.
- 6) Giant Technical Services is still working on the repair plan for the new API separator secondary containment. It will be forwarded to you once environmental receives it.
- 7) The drawings and specifications for the new Chopper pump installation at the new API separator have been completed. Installation is to begin the first week in January, 2006.

<<HALL6848_AL2EP1 11 14.pdf>> <<HALL6846_SW11016.pdf>> <<HALL6745_AL12EP1Bank.pdf>>

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Monzeglio, Hope, NMENV

From: Ed Riege [eriege@giant.com]
Sent: Tuesday, November 29, 2005 1:55 PM
To: Chavez, Carl J, EMNRD; Price, Wayne, EMNRD
Cc: Monzeglio, Hope, NMENV; Ed Rios; David Kirby; Jim Hallock; John Laurent; Steve Morris; James Romero
Subject: RE: November 15, 2005

Carl and Wayne:

In this email I will address the four concerns noted in your November 15 email.

(1) Additional treatment from the old API separator (OAPIS) By minimizing storm water contact with process contact the OAPIS will continue to provide treatment as it acts as a oil water separator and the effluent will continue to be routed to the aeration lagoons for biological treatment. The biological treatment will remove any remaining contaminants.

(2) To use the OAPIS, secondary containment with leak detection will be required. Giant would like to propose installation of a primary liner/shell inside the OAPIS utilizing a leak detection system between. Giant would follow the OCD guideline for below grade tanks and sumps. A leak detection system consisting of a drainage and sump system would be constructed according to 2. B. Upon approval Giant would submit the plan and specifications for OCD approval.

(3) OCD does not think that Giant has isolated and eliminated the source(s) of oil or hazardous waste accumulation at the OAPIS.

Vector Engineering started their site survey on storm water/process water yesterday. Their report is due the end of December and Giants goal will be to find and eliminate all sources of oil.

(4) The secondary containment needs to be fixed to eliminate hydrogeologic connection with the aquifer to demonstrate that secondary containment is in tact and fully functional. The Ciniza engineering department is putting together a plan to address this and it should be forwarded to you within a week.

Thanks

Ed Riege

-----Original Message-----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Monday, November 21, 2005 5:05 PM
To: Ed Riege
Cc: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Subject: RE: November 15, 2005

Ed:

I am working to develop a summary of our November 10, 2005 meeting at the Ciniza Refinery that should help to itemize the issues we discussed during OCD's September 8, 2005 follow-up meeting. In addition, upon review of the attached plan, Giant does not appear to be addressing the "additional treatment from the old API separator (OAPIS)" issue where Wayne Price discussed the need to treat effluent from the OAPIS before routing it to aeration lagoon #1. Also, if Giant plans to use the OAPIS, secondary containment with leak detection will be required. OCD does not think that Giant has isolated and eliminated the source(s) of oil or hazardous waste accumulation at the OAPIS.

Regarding the NAPIS, there appears to be a hydrogeologic connection between the water table aquifer and the fluid level in the secondary containment structure or liner of the NAPIS. Giant had recently attempted to uncover and repair the secondary liner and felt that the once sporadic fluid level had stabilized to about the 1 foot level. However, OCD feels that the secondary containment needs to be fixed to eliminate hydrogeologic connection with the aquifer to demonstrate that secondary containment is in tact and fully functional. Untreated oil or hazardous waste could potentially migrate to the surface and/or worse, migrate underneath the Ciniza property via a groundwater pathway. While OCD is aware of the Chinle Clay Formation beneath and surrounding the Ciniza Refinery, there is a permeable zone where groundwater is migrating northwestward beneath the property. I will attempt to clarify the above matters in my summary.

Please consider the above in your plan when addressing API Separator issues. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/> (Pollution Prevention Guidance is under "Publications")

-----Original Message-----
From: Ed Riege [mailto:eriego@giant.com]
Sent: Monday, November 14, 2005 5:22 PM
To: Chavez, Carl J, EMNRD
Subject: FW: November 15, 2005

-----Original Message-----
From: Ed Riege
Sent: Monday, November 14, 2005 5:18 PM
To: 'wayne.price@state.nm.us'
Cc: David Kirby; Ed Rios; James Romero; 'carl.chavez@state.nm.us'; 'hope.monzeglio@state.nm.us'; 'richard.powell@state.nm.us'
Subject: November 15, 2005

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<<OCD Nov1405.doc>>

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Thursday, November 17, 2005 10:15 AM
To: Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Dave Cobrain (E-mail)
Cc: Ed Riege; James Romero; Steve Morris; Johnny Sanchez
Subject: Giant - Ciniza update week of Nov. 14, 2005

The following is an update for the week of Nov. 14, 2005

- 1) API separator.... Nothing new noted
- 2) Dennis Fuhs and Mike Shane from Fuhs Construction were onsite to put together a plan and cost estimate for clean up around the aeration lagoons and ponds 1 & 2.
- 3) Vector Arizona Inc. will be onsite Monday the 28th of November, 2005 to put together information for the site map needed at Ciniza.
This map will show drainage areas needed for stormwater controls.
- 4) Samples of the material around the aeration lagoons and pond 1 have been gathered and will be delivered to Hall Lab. in Albuquerque today.

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
Sent: Monday, November 14, 2005 11:21 AM
To: Chavez, Carl J, EMNRD; Foust, Denny, EMNRD; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Ed Riege; James Romero; Steve Morris
Subject: Week 9 update

The following is an update for week 9

- 1) API Separator - No problems noted.
 - 2) Split samples were taken with Wayne Price and Carl Chavez from OCD on 11/10/2005. Those samples included water from: The old API separator, aeration lagoon two to evaporation pond one, and the inlet of pond two. Parameters included: TPH (Method 418.1), 8260, 8270, 6010 Metals, and 7470 Mercury.
 - 3) Richard Powell conducted a stormwater inspection along with Wayne Price and Carl Chavez on 11/10/2005.
- Wayne and Carl also conducted a followup to their visit on 9/8/2005.

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November 14, 2005

Wayne Price
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Dear Mr. Price:

This letter is in response to your email dated October 21, 2005. Giant would like to thank you and Carl Chavez for arranging an informative meeting/inspection with Richard Powell of NMED Surface Water Quality Bureau at Ciniza on November 12, 2005. This inspection gave Giant insight to better answer your email asking for a plan to investigate ways to upgrade the current storm water plan and update the refinery process drains and additional treatment from the old API separator. The following is Ciniza's Plan for your approval:

Giant will hire a consultant to determine storm water and process water flows and verify if any commingling may be occurring. The consultant will provide a revised storm water property site map, which will include all existing controls. The consultant will also make recommendations based on their site investigation on what changes can be made to the current storm water plan, process drains, storm water drains and drainage systems to assure that no commingling takes place. Giant proposes the following schedule:

- November 28 - Have consultant hired with PO in place.
- December 30 - Provide OCD with a revised storm water/process water site map.
- January 15, 2006 - Set up meeting with OCD to discuss improvements in the storm water/process drainage based on the site investigation.

Thank you for your review of this plan.

Sincerely,

Ed Riege
Environmental Superintendent

C: Ed Rios
David Kirby

James Romero
Carl Chavez OCD
Hope Monzeglio NMED Hazardous Waste Bureau
Richard Powell NMED Surface Water Quality Bureau

 You forwarded this message on 11/4/2005 3:23 PM.

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Fri 11/4/2005 2:29 PM
To: Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Monzeglio, Hope, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez; James Romero
Subject: Update for week 8
Attachments:  HALL6291_000.pdf(336KB)  HALL6305_000.pdf(653KB)  HALL6302_000.pdf(485KB)

The following is an update for week 8

- 1) API Separator - The west bay was resealed, tested and is back in service. Work on the east bay is up coming
- 2) Excavation of impacted soil from spill at tank 232 is 95% complete. Excavated soil is being stockpiled on plastic
- 3) Soil samples from tank 232 spill were taken and shipped for analysis to determine disposal options
- 4) On 11/02 oil was observed in the old API Separator and the source was tracked to a sample point that tied into a stormwater drain. The sample point has been redirected to the process sewer and the oil at the separator has been vacuumed
- 5) Weekly samples were taken from AP2 to EP1, and Stormwater Separator Effluent
- 6) Weekly lab results are attached (AL2 to EP1 dated 10/13/05 and 10/20/05) (SW Separator dated 10/13/05). Investigations are underway to determine the cause(s) of the increased levels of benzene.
- 7) Updated NMED Hazardous Waste Bureau on the compliance inspection conducted October 26 and 27.
- 8) Discussed changes on PQL and DF and regulatory limits with Hall Laboratory per conference call with NMED, Hall, and Giant Industries, Inc.

<<HALL6291_000.pdf>> <<HALL6305_000.pdf>> <<HALL6302_000.pdf>>

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Fri 10/28/2005 11:07 AM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: The following is an update for week 7
Attachments:  NOC Storm water system.doc(86KB)

The following is an update for week 7

- 1) API Separator - The west bay will be closed and resealed this week. Seals will be tested prior to being put back into service.
- 2) A work order has been issued to excavate contaminated soil from spill at tank 232. All excavated soil will be stockpiled on plastic lining, bermed and soil samples taken for lab analysis. A remediation plan will be submitted to OCD/NMED
- 3) NMED Hazardous Waste Bureau (Compliance) conducted site inspection 10/26 and 10/27
- 4) Daily inspections of stormwater separator continue with no oil being observed
- 5) Weekly samples were taken from AP2 to EP1, and Stormwater Separator Effluent
- 6) Notice of Change for stormwater related issues has been issued (see attached)

<<NOC Storm water system.doc>>

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NOTICE OF CHANGE

UNIT NAME: All Units

CODE: _____

OFFICE USE ONLY

SHIFT SUPERVISOR: Paul Alonzo

NOC REVIEW MEMBERS
Mike Luchetti
Stan Fisher
Steve Morris

NOC #:	
RFC REVIEW COMMITTEE DATE: _____	
RFC REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

TYPE OF CHANGE

PERMANENT	XXX	EFFECTIVE DATE	Oct. 19, 2005
TEMPORARY		END DATE IF TEMPORARY	

- | | | | |
|------------------------------------|--|---|---------------------------------|
| <input type="checkbox"/> PROCESS | <input type="checkbox"/> INSTRUMENTATION | <input checked="" type="checkbox"/> OPERATION PROCEDURE | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> TEMPORARY | <input type="checkbox"/> SAFETY PRACTICE | <input type="checkbox"/> PIPING | <input type="checkbox"/> Policy |

REASON FOR CHANGE

- | | |
|---|--|
| <input type="checkbox"/> Improved Safety/Reduced Risk | <input type="checkbox"/> Essential to efficient operations |
| <input type="checkbox"/> Emissions Control | <input type="checkbox"/> Profitability |
| <input checked="" type="checkbox"/> Other | |

TRAINING AND DOCUMENTATION

- | | |
|--|---|
| <input checked="" type="checkbox"/> OJT (Verbal) | <input type="checkbox"/> MANUAL UPDATE |
| <input type="checkbox"/> FIELD VERIFY | <input type="checkbox"/> COPY TO INSPECTION |
| <input type="checkbox"/> WRITTEN EXAM | <input type="checkbox"/> COPY TO DRAFTING |

DESCRIPTION OF CHANGE/PROCEDURE

(Attach Diagrams if Applicable)

It is not allowable to wash down equipment or oil spills to the storm water sewers. If it becomes necessary to clean equipment or small oil spills, and then use the "Spill Kits" located in front of the control room. If a large oil spill should accrue then the storm water sewers must be isolated with a "Drain Blocker". Then a portable pump must be used to pump the waste water into the oily water (process) sewer.

CAUTION/WARNING (If Applicable) **DO NOT ALLOW OIL TO CONTAMINATE THE STORM WATER SEWERS.**

OPERATOR SIGN OFF

CREW 1

NAME	SIGNATURE	DATE
Rich Eustace		
Pierre Bowannie		
Lonny Curry		
Sonny Williams		
Marcellus James		
Alan Grider		
Frank Hausner		
John Reyna		
Brian Davenport		

CREW 2

NAME	SIGNATURE	DATE
Casey Hamilton		
Delbert Saunders		
Gilbert Martinez		
Rex Kalleco		
Mike Stewart		
Mike Spolar		
Steve Baca		
Mike Martinez		
Ricky Luna		

CREW 3

Andy Green		
Tim Goltz		
Ron Yocham		
Bennie Baca		
Dan McWhorter		
Mike King		
Rusty Rice		
Chris Bahe		
Lenny Mordhorst		
Shawn Terrazas		

CREW 4

Rick Heisch		
Robert Giron		
Joe Chepin		
Chewy Vargas		
Buddy Benson		
Julian Ruiz		
Bennie Spencer		
Jon Roach		
Melvin Jim		
Marcus Chavez		

DAY/TRAINING RELIEF PERSONNEL

Mike Luchetti		
Stan Fisher		
Richard Schmitt		
Paul Alonzo		

Don Colfack		

1. This form will be posted and a copy will be forwarded to the Training Department.
2. Operators initially involved will review with the Supervisor and ask questions and make suggestions regarding the change. Once reviewed and understood, these operators will sign and date form.
3. Operators will notify and train their relief at shift change and those operators will sign and date the form-once the information is understood.
4. Once all operators have signed, forward to the Office Coordinator.

 You forwarded this message on 10/21/2005 1:02 PM.

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:**
To: Chavez, Carl J, EMNRD; James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Cc: Ed Riege
Subject: Pictures of the enlarged stormwater basin/volume
Attachments:  Picture 056.jpg(1MB)  Picture 057.jpg(1MB)  Picture 059.jpg(1MB)  Picture 060.jpg(2MB)

Carl:

Attached are pictures of the lower stormwater basin (outfall #1) which were taken today. As you may recall, during your site visit, accumulated sediments and at the same time enlarge the capacity of the basin. Unfortunately, we do not have any hard numbers capacity was approximately 3000-4000 barrels. The new enlarged basin is approximately 11,000-12,000 barrels. If you need any happy to provide it.

-----Original Message-----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, October 06, 2005 8:21 AM
To: James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: RE: Weekly Reporting (Week Four)

James:

Good morning. Some items for clarification based on the week four report and other matters are provided below.

Regarding item #2, analyticals from the Old API Separator (identified as "Stormwater Separator Effluent Water" in analyticals metals, and general chemistry, Clarification of the point source(s) responsible for the Old API Separator problem is request example, has discharge from the Fluid Catalytic Cracker Unit into the nearby stormwater drain been corrected? Has there l correct storm drainage, etc. and prevent discharges from reaching the Old API Separator? OCD is concerned about future

Regarding item #8, photos of the enlarged stormwater outfall #1 basin is requested along with recalculations of storage vol

Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/>
 (Pollution Prevention Guidance is under "Publications")

From: James Romero [mailto:jromero@giant.com]
Sent: Thursday, October 06, 2005 7:27 AM
To: Monzeglio, Hope, NMENV; James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

Attached are the lab results discussed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Wednesday, October 05, 2005 4:26 PM
To: James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)



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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 10/20/2005 2:16 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Cobrain, Dave, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: The Following is an update for Week 6
Attachments:  [Picture 069.jpg\(1MB\)](#)  [Picture 075.jpg\(823KB\)](#)  [Picture 076.jpg\(1MB\)](#)

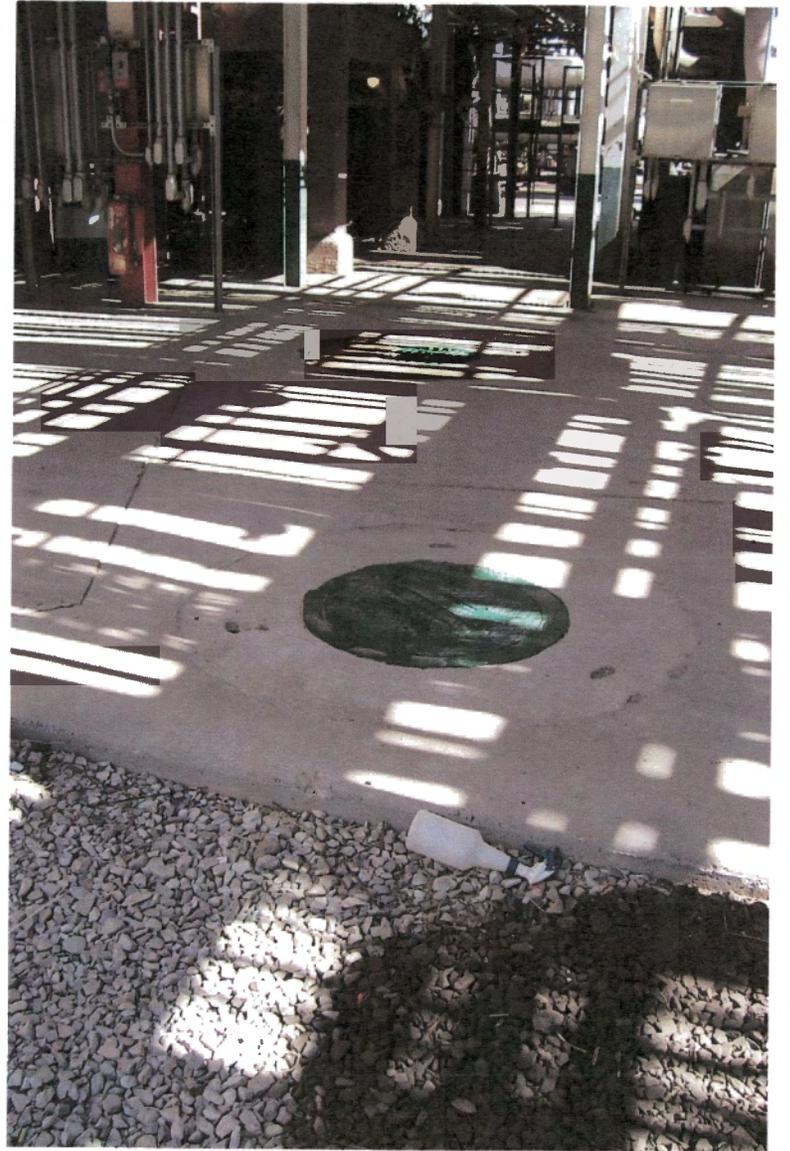
The Following is a summary of week six:

- 1) Annual Groundwater sampling for 2005 has been completed
- 2) Absorbent socks have been put in placed along storm drains (see attached pics of stormwater drains near the FCC)
- 3) Daily inspections of stormwater separator continue with no oil being observed
- 4) AP2 to EP1 lab results have been submitted to OCD/NMED (8/10 to 9/21)
- 5) Weekly samples taken - AP2 to EP1, and Stormwater Separator effluent,
- 6) The primary on the API Separator (west bay) has been repaired *
- 7) Work on the East bay will follow*
- 8) Continuous pumping of the Secondary (API Separator) is underway*
- 9) Serviced both benzene strippers and replaced packing
- 10) Removed 27,480lbs of cooling tower salts with disposal at the Red rock Landfill
- 11) Prepared Notice of Change (Internal SOP) specific to stormwater practices. Giant to forward copy of NOC to OCD/NMED after final signature

* See email from Ed Riege to Hope Monzeglio and Wayne Price dated October 20, 2005

<<Picture 069.jpg>> <<Picture 075.jpg>> <<Picture 076.jpg>>

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* after #11 of email 10/20/05

Monzeglio, Hope, NMENV

From: Ed Riege [eriege@giant.com] **Sent:** Thu 10/20/2005 1:14 PM
T Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Cc. Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Ed Rios; James Romero
Subject: RE: API Separator
Attachments:

The API mechanical repairs have been made, except for the installation of the chopper pump and the API is in good working order. The chopper pump has arrived and final installation specifications are being worked out. The pump should be installed the week of November 7. The oil from the sump is no longer being removed by vacuum truck to the 55,000 BBL tanks. The API west bay primary containment has been repaired sealing all cracks. This bay is currently empty while the contractor is waiting for a warm day to apply sealant for the lids. Once this bay is put back into service the east bay will be taken out of service for cleaning, inspection and repair. The secondary containment for the API is being continuously pumped out until all the repairs can be made on the API primary structures.

Thanks
 Ed Riege

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, October 20, 2005 10:01 AM
To: Monzeglio, Hope, NMENV; eriege@giant.com
Cc: Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Subject: RE: API Separator

OCD has the same questions:

PS: Carl Chavez of the OCD will be taking the lead on all of the OCD permitted refineries. If everyone could CC him including me will work for us.

Thanks:

Wayne Price-Senior Environmental Engr.
 Oil Conservation Division
 1220 S. Saint Francis
 Santa Fe, NM 87505
 E-mail wayne.price@state.nm.us
 Tele: 505-476-3487
 Fax: 505-4763462

From: Monzeglio, Hope, NMENV
Sent: Thu 10/20/2005 9:51 AM
To: eriege@giant.com
Cc: Foust, Denny, EMNRD; Price, Wayne, EMNRD; Cobrain, Dave, NMENV
Subject: API Separator

Ed

What is the status of the API Separator, have all the necessary repairs been made, if not is Giant still removing oil from the sump to the 55,000 bbl tanks? Has the secondary containment to the API Separator been fixed?

Thanks

Hope

Hope Monzeglio
 Environmental Specialist
 New Mexico Environment Department
 Hazardous Waste Bureau
 2905 Rodeo Park Drive East, BLDG 1
 Santa Fe NM 87505
 Phone: (505) 428-2545

Fax: (505)-428-2567
hope.monzeglio@state.nm.us

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com]
To: James Romero; Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Cc:
Subject: RE: The Following is a summary of week five
Attachments:  HALL5985_000.pdf(79KB)

Sent: Thu 10/13/200

Hope it works this time, this is try number 4

-----Original Message-----

From: James Romero
Sent: Thursday, October 13, 2005 2:33 PM
To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'
Subject: RE: The Following is a summary of week five

Attached are the preliminary lab results discussed in week five

-----Original Message-----

From: James Romero
Sent: Thursday, October 13, 2005 11:48 AM
To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'
Subject: RE: The Following is a summary of week five

-----Original Message-----

From: James Romero
Sent: Thursday, October 13, 2005 11:39 AM
To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'
Cc: Ed Riege; Steve Morris
Subject: RE: The Following is a summary of week five

NMED/OCD - Your email system was down earlier, this is a resend - if any of the attachments do not go through let me know.

-----Original Message-----

From: James Romero
Sent: Thursday, October 13, 2005 11:28 AM
To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'
Cc: Ed Riege; Steve Morris; Ted Gonzales; John Laurent; Ed Rios; Stan Fisher
Subject: The Following is a summary of week five

The Following is a summary of week five:

- 1) Giant initiated our monitoring for GWM-2 and GWM-3 (monthly through 2005) with both wells remaining dry
 - 2) Giant painted stormwater drains green to identify them from process drains
 - 3) Absorbents socks are onsite and will be installed. Moreover, drain covers will be ordered and utilized (i.e., DRAINBLOCKER)
 - 4) Annual groundwater sampling continues on SMW's
 - 5) Continued daily inspections of stormwater separator which continues to be oil free
- Follow-up on OCD/NMED site visit 9-8-05 - Preliminary Lab results (2nd round) have been received (see attached). Final lab analysis should be taken 10/13/05 and identical analytical's will be ordered
- 6) The primary on the API Separator has been repaired - Inspection and approval of the repairs is currently underway
 - 7) Work on the East bay will follow
 - 8) Continuous pumping of the Secondary (API Separator) using surge pumps is ensuring no liquids are present
 - 9) Our weekly sample from AL2 to EP1 will be taken on Thursday 10/13/05
 - 10) Additional soil samples from past spills will be taken 10/13/05 and analyzed for 8270 full suite
 - 11) The Railroad Rack Lagoon has been fully remediated and backfilled and Giant is awaiting letter from NMED/OCD on Remedy Completion

-----Original Message-----

From: James Romero

Sent: Tuesday, October 11, 2005 2:47 PM

To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'

Cc: Ed Riege; Steve Morris; Ted Gonzales; John Laurent; Ed Rios; Stan Fisher

Subject: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

ISSUE: Oil was observed in the stormwater separator (Old API Separator)

CAUSE(s): (1) Personnel washing equipment near the FCC allowing runoff to enter storm drains; (2) Inadequate stormwater training.

INTERIM MEASURES: (1) All equipment washing was ceased; (2) Absorbent socks were ordered and will be installed; (3) Daily inspections of the stormwater painted green as to identify them from process drains; and (5) sampling of the effluent from the separator will be conducted until lab results demonstrate no contamination.

LONG-TERM MEASURES: (1) Annual stormwater training was given in March 2005. However, a refresher will be given to all employees no later than January 2006 and will be geared specifically to the stormwater drains located within the units; (2) the storm drain (see attached map) will be flushed to remove any residual oil; and (3) a spill kit will be located near the FCC

-----Original Message-----

From: James Romero

Sent: Thursday, October 06, 2005 8:59 AM

To: 'Chavez, Carl J, EMNRD'; James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD

Cc: Ed Riege; Steve Morris; Ted Gonzales; John Laurent; Ed Rios

Subject: RE: Weekly Reporting (Week Four Clarification)

Good Morning Carl, Giant will develop a detailed response which will clarify the point source(s) responsible for the Old API Separators. The solutions we are undertaking along with alternatives being considered as a long-term remedy. In the immediate future, we have: (1) installed at storm drains near the FCC; (2) discussions on flushing the storm drains is being considered; and (3) new SOP have been developed and washed down the storm system. I will note, we are still in the early stages of discussions with our engineers and management to

In regards to the storm water basin, Giant will forward photos along with the new storage capacity (by cob Friday 10/6).

-----Original Message-----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, October 06, 2005 8:21 AM

To: James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD

Subject: RE: Weekly Reporting (Week Four)

James:

Good morning. Some items for clarification based on the week four report and other matters are provided below.

Regarding item #2, analyticals from the Old API Separator (identified as "Stormwater Separator Effluent Water" in analyticals for metals, and general chemistry, Clarification of the point source(s) responsible for the Old API Separator problem is requested. For example, has discharge from the Fluid Catalytic Cracker Unit into the nearby stormwater drain been corrected? Has there been any correct storm drainage, etc. and prevent discharges from reaching the Old API Separator? OCD is concerned about future

Regarding item #8, photos of the enlarged stormwater outfall #1 basin is requested along with recalculations of storage volume.

Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/>
 (Pollution Prevention Guidance is under "Publications")

From: James Romero [mailto:jromero@giant.com]

Sent: Thursday, October 06, 2005 7:27 AM

To: Monzeglio, Hope, NMENV; James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD

Cc: Chavez, Carl J, EMNRD

Subject: RE: Weekly Reporting (Week Four)

Attached are the lab results discussed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Wednesday, October 05, 2005 4:26 PM
To: James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

I did not receive the attachments.

Hope Monzeglio
 Environmental Specialist
 New Mexico Environment Department
 Hazardous Waste Bureau
 2905 Rodeo Park Drive East, BLDG 1
 Santa Fe NM 87505
 Phone: (505) 428-2545
 Fax: (505)-428-2567
hope.monzeglio@state.nm.us

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 10/5/2005 1:23 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

The Following is a summary of week four

- 1) Oil from our ponds has been removed with Riley completing work on Thursday Sept 29th (see pics from last week)
- 2) Follow up on OCD/NMED 9/8/05 site visit - Lab results from the old API Separator have been received (see attached) oil has been removed from the old API separator and it continues to be oil free. Moreover, due to the fact the above some parameters, another grab sample of the effluent will be taken this week and sent for lab analysis which will be noted the grab sample will be taken from the outlet of the old API separator where it enters Aeration Lagoon #1.
- 3) The Railroad Rack Lagoon has been fully remediated and will be backfilled 10/10/05. A full report with lab analysis OCD via email with regular mail to Wayne and Hope this week.
- 4) A new C 141 spill report was filed this week notifying OCD/NMED of a leak into the secondary of the new API separator secondary have been pumped and measures have been taken ensuring the secondary continues to stay dry (i.e., pump on Monday 10/10/05 to repair the primary with work beginning on the east bay followed by the west bay. This item is on OCD and NMED and will continue until the problem has been corrected.
- 5) Lab results from AL2 to EP1 (Aug 12, Aug 23, Aug 30, Sept 9, Sept 15, and Sept 21) have been received and will be reported next week.
- 6) Our weekly sample from AL2 to EP1 will be taken on Thursday 10/6/05
- 7) Annual ground water sampling is continuing this week on SMW's
- 8) Fuhs was onsite to clean the lower stormwater basin (outfall #1) and also enlarged the basin.

-----Original Message-----

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com]
To: Chavez, Carl J, EMNRD; James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Cc: Ed Riege; Steve Morris; Ted Gonzales; John Laurent; Ed Rios
Subject: RE: Weekly Reporting (Week Four Clarification)
Attachments:

Sent: Thu 10/6/2005 9:59 AM

Good Morning Carl, Giant will develop a detailed response which will clarify the point source(s) responsible for the Old API Separator problem. In our response we'll discuss solutions we are undertaking along with alternatives being considered as a long-term remedy. In the immediate future, we have taken the following steps: (1) absorbents will be installed at storm drains near the FCC; (2) discussions on flushing the storm drains is being considered; and (3) new SOP have been put in place to ensure no contaminants are washed down the storm system. I will note, we are still in the early stages of discussions with our engineers and management to develop a long term solution.

In regards to the storm water basin, Giant will forward photos along with the new storage capacity (by cob Friday 10/6).

-----Original Message-----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, October 06, 2005 8:21 AM
To: James Romero; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: RE: Weekly Reporting (Week Four)

James:

Good morning. Some items for clarification based on the week four report and other matters are provided below.

Regarding item #2, analyticals from the Old API Separator (identified as "Stormwater Separator Effluent Water" in analytical reports) should consist of: volatiles, total metals, and general chemistry. Clarification of the point source(s) responsible for the Old API Separator problem is requested along with detailed corrective action(s). For example, has discharge from the Fluid Catalytic Cracker Unit into the nearby stormwater drain been corrected? Has there been any corrective measures taken to correct storm drainage, etc. and prevent discharges from reaching the Old API Separator? OCD is concerned about future reoccurrences of discharge problems the

Regarding item #8, photos of the enlarged stormwater outfall #1 basin is requested along with recalculations of storage volume capacity.

Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/>
 (Pollution Prevention Guidance is under "Publications")

From: James Romero [mailto:jromero@giant.com]

Sent: Thursday, October 06, 2005 7:27 AM
To: Monzeglio, Hope, NMENV; James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

Attached are the lab results discussed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Wednesday, October 05, 2005 4:26 PM
To: James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

I did not receive the attachments.

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 428-2545
Fax: (505)-428-2567
hope.monzeglio@state.nm.us

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 10/5/2005 1:23 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

The Following is a summary of week four

- 1) Oil from our ponds has been removed with Riley completing work on Thursday Sept 29th (see pics from last weeks report titled "update to week three")
- 2) Follow up on OCD/NMED 9/8/05 site visit - Lab results from the old API Separator have been received (see attached lab results). As of 9/9/05, all the oil has been removed from the old API separator and it continues to be oil free. Moreover, due to the fact the above grab sample exceeded NMWQS for some parameters, another grab sample of the effluent will be taken this week and sent for lab analysis which will be forwarded to OCD and NMED. It should be noted the grab sample will be taken from the outlet of the old API separator where it enters Aeration Lagoon #1.
- 3) The Railroad Rack Lagoon has been fully remediated and will be backfilled 10/10/05. A full report with lab analysis and pics will be forward to NMED and OCD via email with regular mail to Wayne and Hope this week.
- 4) A new C 141 spill report was filed this week notifying OCD/NMED of a leak into the secondary of the new API separator. All the liquids from the secondary have been pumped and measures have been taken ensuring the secondary continues to stay dry (i.e., purge pumps). Moreover, work will begin on Monday 10/10/05 to repair the primary with work beginning on the east bay followed by the west bay. This item as been added to the weekly reporting to OCD and NMED and will continue until the problem has been corrected.

- 5) Lab results from AL2 to EP1 (Aug 12, Aug 23, Aug 30, Sept 9, Sept 15, and Sept 21) have been received and will be forward to OCD and NMED this week.
- 6) Our weekly sample from AL2 to EP1 will be taken on Thursday 10/6/05
- 7) Annual ground water sampling is continuing this week on SMW's
- 8) Fuhs was onsite to clean the lower stormwater basin (outfall #1) and also enlarged the basin

-----Original Message-----

From: James Romero

Sent: Thursday, September 29, 2005 9:31 AM

To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'

Cc: Ed Riege; Steve Morris; Johnny Sanchez; 'carlj.chavez@state.nm.us'

Subject: RE: Weekly Reporting (Update to Week three)

The following is an update to our week three report:

- 1) Oil from our ponds has been removed with only a slight sheen remaining (see attached pics). Riley will continue to vacuum with work expected to be completed later this week early next {pic 45 is pond one/pic 46 is aeration 2}
- 2) Our weekly sample from AL-2 to EP1 will be gathered today

-----Original Message-----

From: James Romero

Sent: Wednesday, September 28, 2005 10:18 AM

To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'

Cc: Ed Riege; Steve Morris; Johnny Sanchez

Subject: RE: Weekly Reporting (Week Three)

The following is a summary of week three:

- 1) Riley is continuing work on aeration lagoon 1 and 2
 - Between 9/20/05 - 9/26/05 58 trucks of oily wastewater were removed
 - Loads from the 55,000bbl tanks = 5/200bbl loads of sludge removed from tank and recycled
 - 15 truck loads of water removed

*Estimated time until pond cleanup is completed is next week
- 2) New boom arrived and will be installed at the inlet to pond 2
- 3) Two new dry monitoring wells were installed by Precision Engineering (GWM-2/GWM-3). Monthly Sampling will begin October 05
- 4) A soil boring was completed for the proposed firewater pond - a sample was sent to Precision for permeability testing (EM 110-2-1906)
- 5) A soil sample was gathered for OCD and will be held onsite (per discussions with Wayne)
- 6) The old API separator continues to be oil free (we are awaiting lab result from previous sampling)
- 7) Railroad Lagoon sampling is complete. All samples came back clean and the area will be backfilled next week
- 8) 2003 OCD Report Response was completed and mailed 9/27
- 9) Elevations for the Boundary wells are completed and included in the 2003 OCD Response
- 10) Annual Groundwater sampling is underway this week on the OW wells
- 11) " " next week on the SMW wells
- 12) Weekly sampling from aeration 2 into evap pond 1 (AL-2 to EP-1) will be taken 9/29

 You replied on 10/12/2005 5:23 PM.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: Chavez, Carl J, EMNRD
To: Monzeglio, Hope, NMENV
Cc:
Subject: FW: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR
Attachments:  [1011141319_001.pdf\(209KB\)](#)

Sent: Wed 10/12/2005 4:43 PM

Hope:

FYI, in case you didn't get the stormwater diagram either (see attachment). Looks like Giant has identified part of the oil problem at the Old API Separator from the FCC U confirm. Lets see how things develop on the Old API Separator problem in its entirety. Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/>
 (Pollution Prevention Guidance is under "Publications")

From: James Romero [<mailto:jromero@giant.com>]
Sent: Wednesday, October 12, 2005 4:13 PM
To: Chavez, Carl J, EMNRD; James Romero
Cc: Ed Riege
Subject: RE: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

Carl:

Sorry it took so long to get back to your email, its been a hectic day. Anyways, attached is the map which depicts the area to be flushed.

Regarding a written SOP, based on what I know, we have not added anything in writing to operation's SOP's which addresses stormwater other than our Stormwater Plan problem was isolated recently, and discussions are underway to address, not only interim measures, but a long term solution.

I will note management has briefed everyone onsite about the do's and don'ts. Also, they have requested everyone have refresher stormwater training, and that all storm

Let me check with our operations manager, maybe he put something in writing we can forward.

-----Original Message-----

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, October 12, 2005 10:06 AM
To: James Romero
Subject: RE: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

James:

Could you please send me the attached map that I was supposed to receive along with your e-mail. Also, please send the SOPs that Giant developed and are currently address the stormwater problem. Thank you.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/>
 (Pollution Prevention Guidance is under "Publications")

From: James Romero [mailto:jromero@giant.com]
Sent: Tuesday, October 11, 2005 4:19 PM
To: James Romero; Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: RE: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

The following email was returned, not sure if your email system was down.

-----Original Message-----

From: James Romero
Sent: Tuesday, October 11, 2005 2:47 PM
To: James Romero; 'Chavez, Carl J, EMNRD'; 'Monzeglio, Hope, NMENV'; 'Price, Wayne, EMNRD'; 'Foust, Denny, EMNRD'
Cc: Ed Riege; Steve Morris; Ted Gonzales; John Laurent; Ed Rios; Stan Fisher
Subject: CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

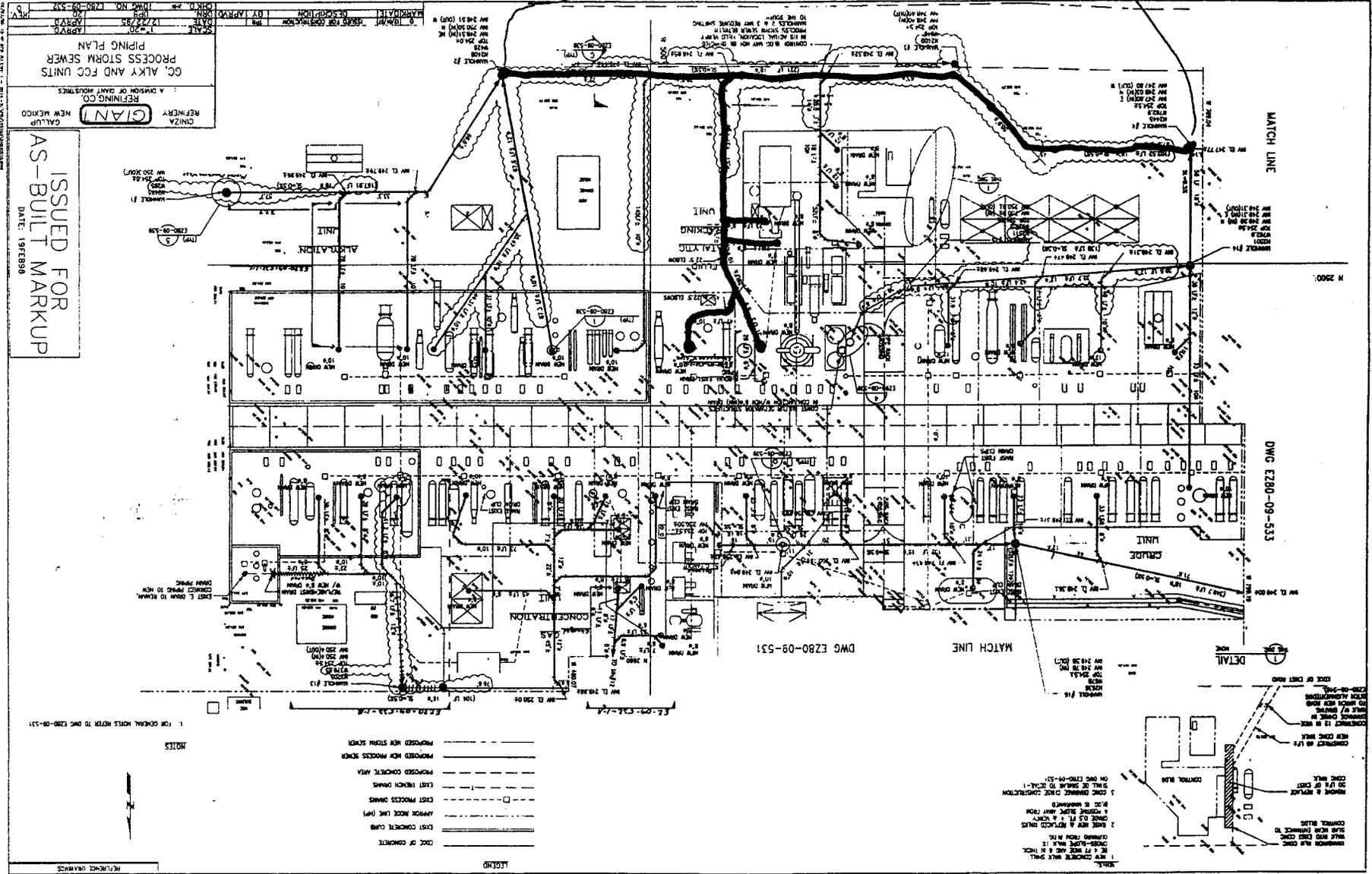
CORRECTIVE ACTION PLAN FOR STORMWATER SEPARATOR

ISSUE: Oil was observed in the stormwater separator (Old API Separator)

CAUSE(s): (1) Personnel washing equipment near the FCC allowing runoff to enter storm drains; (2) Inadequate stormwater training.

INTERIM MEASURES: (1) All equipment washing was ceased; (2) Absorbent socks were ordered and will be installed; (3) Daily inspections of the stormwater separator is being conducted painted green as to identify them from process drains; and (5) sampling of the effluent from the separator will be conducted until lab results demonstrate no contamination

This part of the stormwater system will be flushed



GC, ALKY AND FCC UNITS
PROCESS STORM SEWER
PIPING PLAN

GIANT
REFINERY
GALUP
NEW MEXICO

DATE: 198508

ISSUED FOR
AS-BUILT MARKUP

LEGEND

EXIST CONCRETE CURB
EXIST PROCESS DRAINS
EXIST TRINCH DRAINS
PROPOSED CONCRETE AREA
PROPOSED NEW PROCESS SEWER
PROPOSED NEW STORM SEWER

NOTES

1. FOR GENERAL NOTES REFER TO DWG E280-09-531

DETAIL

SECTION 1

1. NEW CONCRETE MAX. SLOPE SHALL BE 1% MIN. IN THE DIRECTION OF FLOW.

2. EXISTING 24" DIA. 12" WALL PIPE SHALL BE REPLACED WITH 24" DIA. 12" WALL PIPE.

3. CONCRETE CURB CONSTRUCTION SHALL BE SHOWN TO DETAIL-1.

4. CONCRETE SHALL BE 2800 PSI.

5. CONCRETE SHALL BE 2800 PSI.

6. CONCRETE SHALL BE 2800 PSI.

7. CONCRETE SHALL BE 2800 PSI.

8. CONCRETE SHALL BE 2800 PSI.

9. CONCRETE SHALL BE 2800 PSI.

10. CONCRETE SHALL BE 2800 PSI.

You forwarded this message on 10/6/2005 8:46 AM.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 10/6/2005 8:46 AM
To: Monzeglio, Hope, NMENV; James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)
Attachments:  HALL5797_000.pdf(727KB)

Attached are the lab results discussed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Wednesday, October 05, 2005 4:26 PM
To: James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

I did not receive the attachments.

Hope Monzeglio
 Environmental Specialist
 New Mexico Environment Department
 Hazardous Waste Bureau
 2905 Rodeo Park Drive East, BLDG 1
 Santa Fe NM 87505
 Phone: (505) 428-2545
 Fax: (505)-428-2567
hope.monzeglio@state.nm.us

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 10/5/2005 1:23 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)

The Following is a summary of week four

- 1) Oil from our ponds has been removed with Riley completing work on Thursday Sept 29th (see pics from last weeks report)
- 2) Follow up on OCD/NMED 9/8/05 site visit - Lab results from the old API Separator have been received (see attached lab report) oil has been removed from the old API separator and it continues to be oil free. Moreover, due to the fact the above grab sample was not analyzed for some parameters, another grab sample of the effluent will be taken this week and sent for lab analysis which will be forwarded to you. It will be noted the grab sample will be taken from the outlet of the old API separator where it enters Aeration Lagoon #1.
- 3) The Railroad Rack Lagoon has been fully remediated and will be backfilled 10/10/05. A full report with lab analysis and photos will be sent to you via email with regular mail to Wayne and Hope this week.
- 4) A new C 141 spill report was filed this week notifying OCD/NMED of a leak into the secondary of the new API separator. The secondary have been pumped and measures have been taken ensuring the secondary continues to stay dry (i.e., purge pumps on Monday 10/10/05 to repair the primary with work beginning on the east bay followed by the west bay. This item as been reported to OCD and NMED and will continue until the problem has been corrected.
- 5) Lab results from AL2 to EP1 (Aug 12, Aug 23, Aug 30, Sept 9, Sept 15, and Sept 21) have been received and will be forwarded to you for week.
- 6) Our weekly sample from AL2 to EP1 will be taken on Thursday 10/6/05
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- 8) Fuhs was onsite to clean the lower stormwater basin (outfall #1) and also enlarged the basin

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From: James Romero
Sent: Thursday, September 29, 2005 9:31 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'



COVER LETTER

September 30, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Stormwater Separator Effluent Water

Order No.: 0509109

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 9/12/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0509109
 Project: Stormwater Separator Effluent Water
 Lab ID: 0509109-01

Client Sample ID: SW Sep Effluent
 Collection Date: 9/9/2005 11:30:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	2.1	0.50		mg/L	5	9/13/2005
Chloride	90	0.50		mg/L	5	9/13/2005
Phosphorus, Orthophosphate (As P)	2.6	2.5	H	mg/L	5	9/13/2005
Sulfate	2300	25		mg/L	50	9/16/2005
Nitrate (As N)+Nitrite (As N)	5.0	0.50		mg/L	5	9/15/2005
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.9	1.0		mg/L	1	9/21/2005 12:09:57 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/21/2005 12:09:57 PM
Surr: DNOP	126	58-140		%REC	1	9/21/2005 12:09:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	3.0	0.25		mg/L	5	9/17/2005 2:18:49 AM
Surr: BFB	113	79.7-118		%REC	5	9/17/2005 2:18:49 AM
EPA METHOD 8260B: VOLATILES						Analyst: HLM
Benzene	82	2.0		µg/L	2	9/14/2005
Toluene	290	20		µg/L	20	9/13/2005
Ethylbenzene	35	2.0		µg/L	2	9/14/2005
Methyl tert-butyl ether (MTBE)	3.8	2.0		µg/L	2	9/14/2005
1,2,4-Trimethylbenzene	110	2.0		µg/L	2	9/14/2005
1,3,5-Trimethylbenzene	91	2.0		µg/L	2	9/14/2005
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	9/14/2005
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	9/14/2005
Naphthalene	42	4.0		µg/L	2	9/14/2005
1-Methylnaphthalene	110	8.0		µg/L	2	9/14/2005
2-Methylnaphthalene	99	8.0		µg/L	2	9/14/2005
Acetone	ND	20		µg/L	2	9/14/2005
Bromobenzene	ND	2.0		µg/L	2	9/14/2005
Bromochloromethane	ND	2.0		µg/L	2	9/14/2005
Bromodichloromethane	ND	2.0		µg/L	2	9/14/2005
Bromoform	ND	2.0		µg/L	2	9/14/2005
Bromomethane	ND	4.0		µg/L	2	9/14/2005
2-Butanone	ND	20		µg/L	2	9/14/2005
Carbon disulfide	ND	20		µg/L	2	9/14/2005
Carbon Tetrachloride	ND	2.0		µg/L	2	9/14/2005
Chlorobenzene	ND	2.0		µg/L	2	9/14/2005
Chloroethane	ND	4.0		µg/L	2	9/14/2005
Chloroform	ND	2.0		µg/L	2	9/14/2005
Chloromethane	ND	2.0		µg/L	2	9/14/2005
2-Chlorotoluene	ND	2.0		µg/L	2	9/14/2005
4-Chlorotoluene	ND	2.0		µg/L	2	9/14/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0509109
 Project: Stormwater Separator Effluent Water
 Lab ID: 0509109-01

Client Sample ID: SW Sep Effluent
 Collection Date: 9/9/2005 11:30:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,2-DCE	2.1	2.0		µg/L	2	9/14/2005
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	9/14/2005
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	9/14/2005
Dibromochloromethane	ND	2.0		µg/L	2	9/14/2005
Dibromomethane	ND	4.0		µg/L	2	9/14/2005
1,2-Dichlorobenzene	ND	2.0		µg/L	2	9/14/2005
1,3-Dichlorobenzene	ND	2.0		µg/L	2	9/14/2005
1,4-Dichlorobenzene	ND	2.0		µg/L	2	9/14/2005
Dichlorodifluoromethane	ND	2.0		µg/L	2	9/14/2005
1,1-Dichloroethane	ND	2.0		µg/L	2	9/14/2005
1,1-Dichloroethene	ND	2.0		µg/L	2	9/14/2005
1,2-Dichloropropane	ND	2.0		µg/L	2	9/14/2005
1,3-Dichloropropane	ND	2.0		µg/L	2	9/14/2005
2,2-Dichloropropane	ND	2.0		µg/L	2	9/14/2005
1,1-Dichloropropene	ND	2.0		µg/L	2	9/14/2005
Hexachlorobutadiene	ND	2.0		µg/L	2	9/14/2005
2-Hexanone	ND	20		µg/L	2	9/14/2005
Isopropylbenzene	14	2.0		µg/L	2	9/14/2005
4-Isopropyltoluene	13	2.0		µg/L	2	9/14/2005
4-Methyl-2-pentanone	ND	20		µg/L	2	9/14/2005
Methylene Chloride	ND	6.0		µg/L	2	9/14/2005
n-Butylbenzene	14	2.0		µg/L	2	9/14/2005
n-Propylbenzene	4.5	2.0		µg/L	2	9/14/2005
sec-Butylbenzene	8.9	2.0		µg/L	2	9/14/2005
Styrene	ND	2.0		µg/L	2	9/14/2005
tert-Butylbenzene	ND	2.0		µg/L	2	9/14/2005
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	9/14/2005
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	2	9/14/2005
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	9/14/2005
trans-1,2-DCE	ND	2.0		µg/L	2	9/14/2005
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	9/14/2005
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	9/14/2005
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	9/14/2005
1,1,1-Trichloroethane	ND	2.0		µg/L	2	9/14/2005
1,1,2-Trichloroethane	ND	2.0		µg/L	2	9/14/2005
Trichloroethene (TCE)	ND	2.0		µg/L	2	9/14/2005
Trichlorofluoromethane	ND	2.0		µg/L	2	9/14/2005
1,2,3-Trichloropropane	ND	4.0		µg/L	2	9/14/2005
Vinyl chloride	ND	2.0		µg/L	2	9/14/2005
Xylenes, Total	850	20		µg/L	20	9/13/2005
Surr: 1,2-Dichloroethane-d4	93.4	87.7-108		%REC	2	9/14/2005
Surr: 4-Bromofluorobenzene	104	88.4-125		%REC	2	9/14/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
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Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0509109
 Project: Stormwater Separator Effluent Water
 Lab ID: 0509109-01

Client Sample ID: SW Sep Effluent
 Collection Date: 9/9/2005 11:30:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr. Dibromofluoromethane	100	83.1-111		%REC	2	9/14/2005
Surr. Toluene-d8	97.1	85.9-109		%REC	2	9/14/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	10		µg/L	1	9/15/2005
Acenaphthylene	ND	10		µg/L	1	9/15/2005
Aniline	ND	10		µg/L	1	9/15/2005
Anthracene	ND	10		µg/L	1	9/15/2005
Azobenzene	ND	10		µg/L	1	9/15/2005
Benz(a)anthracene	ND	15		µg/L	1	9/15/2005
Benzo(a)pyrene	ND	10		µg/L	1	9/15/2005
Benzo(b)fluoranthene	ND	10		µg/L	1	9/15/2005
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/15/2005
Benzo(k)fluoranthene	ND	10		µg/L	1	9/15/2005
Benzoic acid	ND	50		µg/L	1	9/15/2005
Benzyl alcohol	ND	20		µg/L	1	9/15/2005
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/15/2005
Bis(2-chloroethyl)ether	ND	15		µg/L	1	9/15/2005
Bis(2-chloroisopropyl)ether	ND	15		µg/L	1	9/15/2005
Bis(2-ethylhexyl)phthalate	ND	15		µg/L	1	9/15/2005
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/15/2005
Butyl benzyl phthalate	ND	15		µg/L	1	9/15/2005
Carbazole	ND	10		µg/L	1	9/15/2005
4-Chloro-3-methylphenol	ND	20		µg/L	1	9/15/2005
4-Chloroaniline	ND	20		µg/L	1	9/15/2005
2-Chloronaphthalene	ND	10		µg/L	1	9/15/2005
2-Chlorophenol	ND	10		µg/L	1	9/15/2005
4-Chlorophenyl phenyl ether	ND	15		µg/L	1	9/15/2005
Chrysene	ND	15		µg/L	1	9/15/2005
Di-n-butyl phthalate	ND	10		µg/L	1	9/15/2005
Di-n-octyl phthalate	ND	15		µg/L	1	9/15/2005
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/15/2005
Dibenzofuran	ND	10		µg/L	1	9/15/2005
1,2-Dichlorobenzene	ND	10		µg/L	1	9/15/2005
1,3-Dichlorobenzene	ND	10		µg/L	1	9/15/2005
1,4-Dichlorobenzene	ND	10		µg/L	1	9/15/2005
3,3'-Dichlorobenzidine	ND	15		µg/L	1	9/15/2005
Diethyl phthalate	ND	10		µg/L	1	9/15/2005
Dimethyl phthalate	ND	10		µg/L	1	9/15/2005
2,4-Dichlorophenol	ND	10		µg/L	1	9/15/2005
2,4-Dimethylphenol	ND	10		µg/L	1	9/15/2005
4,6-Dinitro-2-methylphenol	ND	50		µg/L	1	9/15/2005
2,4-Dinitrophenol	ND	50		µg/L	1	9/15/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0509109
 Project: Stormwater Separator Effluent Water
 Lab ID: 0509109-01

Client Sample ID: SW Sep Effluent
 Collection Date: 9/9/2005 11:30:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
2,4-Dinitrotoluene	ND	10		µg/L	1	9/15/2005
2,6-Dinitrotoluene	ND	10		µg/L	1	9/15/2005
Fluoranthene	ND	10		µg/L	1	9/15/2005
Fluorene	ND	10		µg/L	1	9/15/2005
Hexachlorobenzene	ND	10		µg/L	1	9/15/2005
Hexachlorobutadiene	ND	10		µg/L	1	9/15/2005
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/15/2005
Hexachloroethane	ND	10		µg/L	1	9/15/2005
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/15/2005
Isophorone	ND	10		µg/L	1	9/15/2005
2-Methylnaphthalene	ND	10		µg/L	1	9/15/2005
2-Methylphenol	ND	15		µg/L	1	9/15/2005
3+4-Methylphenol	ND	10		µg/L	1	9/15/2005
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/15/2005
N-Nitrosodimethylamine	ND	10		µg/L	1	9/15/2005
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/15/2005
Naphthalene	ND	10		µg/L	1	9/15/2005
2-Nitroaniline	ND	50		µg/L	1	9/15/2005
3-Nitroaniline	ND	50		µg/L	1	9/15/2005
4-Nitroaniline	ND	20		µg/L	1	9/15/2005
Nitrobenzene	ND	10		µg/L	1	9/15/2005
2-Nitrophenol	ND	15		µg/L	1	9/15/2005
4-Nitrophenol	ND	50		µg/L	1	9/15/2005
Pentachlorophenol	ND	50		µg/L	1	9/15/2005
Phenanthrene	ND	10		µg/L	1	9/15/2005
Phenol	ND	10		µg/L	1	9/15/2005
Pyrene	ND	15		µg/L	1	9/15/2005
Pyridine	ND	30		µg/L	1	9/15/2005
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/15/2005
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/15/2005
2,4,6-Trichlorophenol	ND	15		µg/L	1	9/15/2005
Surr: 2,4,6-Tribromophenol	79.6	16.6-150		%REC	1	9/15/2005
Surr: 2-Fluorobiphenyl	67.4	19.6-134		%REC	1	9/15/2005
Surr: 2-Fluorophenol	44.4	9.54-113		%REC	1	9/15/2005
Surr: 4-Terphenyl-d14	57.4	22.7-145		%REC	1	9/15/2005
Surr: Nitrobenzene-d5	63.4	14.6-134		%REC	1	9/15/2005
Surr: Phenol-d6	29.1	10.7-80.3		%REC	1	9/15/2005
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	5700	0.010		µmhos/cm	1	9/20/2005
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	9/13/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: SW Sep Effluent

Lab Order: 0509109

Collection Date: 9/9/2005 11:30:00 AM

Project: Stormwater Separator Effluent Water

Lab ID: 0509109-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/29/2005 11:05:29 AM
Barium	0.063	0.020		mg/L	1	9/29/2005 11:05:29 AM
Cadmium	ND	0.0020		mg/L	1	9/29/2005 11:05:29 AM
Calcium	58	1.0		mg/L	1	9/29/2005 11:05:29 AM
Chromium	0.0072	0.0060		mg/L	1	9/29/2005 11:05:29 AM
Lead	ND	0.0050		mg/L	1	9/29/2005 11:05:29 AM
Magnesium	14	1.0		mg/L	1	9/29/2005 11:05:29 AM
Potassium	6.2	1.0		mg/L	1	9/29/2005 11:05:29 AM
Selenium	ND	0.050		mg/L	1	9/29/2005 11:05:29 AM
Silver	ND	0.0050		mg/L	1	9/29/2005 11:05:29 AM
Sodium	1200	100		mg/L	100	9/29/2005 12:23:00 PM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.09	0.010		pH units	1	9/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MBLK	R16631	E300	mg/L	9/12/2005							
Client ID:		Run ID: LC_050912A		SeqNo: 399210							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MBLK	R16660	E300	mg/L	9/14/2005							
Client ID:		Run ID: LC_050914A		SeqNo: 400301							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MBLK	R16660	E300	mg/L	9/14/2005							
Client ID:		Run ID: LC_050914A		SeqNo: 400340							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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

CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MBLK	R16676	E300	mg/L	9/15/2005							
Client ID:		Run ID: LC_050915A		SeqNo: 400686							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-8767	8767	SW8015	mg/L	9/21/2005 10:32:22 AM	9/16/2005						
Client ID:		Run ID: FID(17A) 2_050920A		SeqNo: 402340							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.318	0	1	0	132	58	140	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
RB-II 5ml	R16692	SW8015	mg/L	9/16/2005 11:46:06 PM							
Client ID:		Run ID: PIDFID_050916B		SeqNo: 401082							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	20.06	0	20	0	100	79.7	118	0			

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

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-8746	8746	SW8270C	µg/L	9/15/2005	9/13/2005						
Client ID:	Run ID:	SeqNo:									
	ELMO_050915A	400760									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Aniline	ND	10									
Anthracene	ND	10									
Azobenzene	ND	10									
Benz(a)anthracene	ND	15									
Benzo(a)pyrene	ND	10									
Benzo(b)fluoranthene	ND	10									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	15									
Bis(2-chloroisopropyl)ether	ND	15									
Bis(2-ethylhexyl)phthalate	ND	15									
4-Bromophenyl phenyl ether	ND	10									
Butyl benzyl phthalate	ND	15									
Carbazole	ND	10									
4-Chloro-3-methylphenol	ND	20									
4-Chloroaniline	ND	20									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
4-Chlorophenyl phenyl ether	ND	15									
Chrysene	ND	15									
Di-n-butyl phthalate	ND	10									
Di-n-octyl phthalate	ND	15									
Dibenz(a,h)anthracene	ND	10									

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

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

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Dibenzofuran	ND	10
1,2-Dichlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
3,3'-Dichlorobenzidine	ND	15
Diethyl phthalate	ND	10
Dimethyl phthalate	ND	10
2,4-Dichlorophenol	ND	10
2,4-Dimethylphenol	ND	10
4,6-Dinitro-2-methylphenol	ND	50
2,4-Dinitrophenol	ND	50
2,4-Dinitrotoluene	ND	10
2,6-Dinitrotoluene	ND	10
Fluoranthene	ND	10
Fluorene	ND	10
Hexachlorobenzene	ND	10
Hexachlorobutadiene	ND	10
Hexachlorocyclopentadiene	ND	10
Hexachloroethane	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Isophorone	ND	10
2-Methylnaphthalene	ND	10
2-Methylphenol	ND	15
3+4-Methylphenol	ND	10
N-Nitrosodl-n-propylamine	ND	10
N-Nitrosodimethylamine	ND	10
N-Nitrosodiphenylamine	ND	10
Naphthalene	ND	10
2-Nitroaniline	ND	50
3-Nitroaniline	ND	50
4-Nitroaniline	ND	20
Nitrobenzene	ND	10
2-Nitrophenol	ND	15

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

4-Nitrophenol	ND	50							
Pentachlorophenol	ND	50							
Phenanthrene	ND	10							
Phenol	ND	10							
Pyrene	ND	15							
Pyridine	ND	30							
1,2,4-Trichlorobenzene	ND	10							
2,4,5-Trichlorophenol	ND	10							
2,4,6-Trichlorophenol	ND	15							
Surr: 2,4,6-Tribromophenol	138.8	0	200	0	69.4	16.6	150	0	
Surr: 2-Fluorobiphenyl	66.54	0	100	0	66.5	19.6	134	0	
Surr: 2-Fluorophenol	124.7	0	200	0	62.4	9.54	113	0	
Surr: 4-Terphenyl-d14	77.86	0	100	0	77.9	22.7	145	0	
Surr: Nitrobenzene-d5	70.12	0	100	0	70.1	14.6	134	0	
Surr: Phenol-d6	86.4	0	200	0	43.2	10.7	80.3	0	

Sample ID MB-8742 Batch ID: 8742 Test Code: SW7470 Units: mg/L Analysis Date 9/13/2005 Prep Date 9/13/2005
 Client ID: Run ID: MI-LA254_050913B SeqNo: 399552

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

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

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-8823	8823	SW6010A	mg/L	9/29/2005 9:53:00 AM	9/27/2005						
Client ID:		Run ID: ICP_050929A		SeqNo: 405128							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Lead	ND	0.005									
Magnesium	ND	1									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	ND	0.005									
Sodium	ND	1									

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

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
5ml rb	R16641	SW8260B	µg/L	9/13/2005							
Client ID:		Run ID: VAL_050913A		SeqNo: 399592							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	ND	2									
2-Butanone	ND	10									
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromethane	ND	1									
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									

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

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

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cis-1,3-Dichloropropene	ND	1
1,2-Dibromo-3-chloropropane	ND	2
Dibromochloromethane	ND	1
Dibromomethane	ND	2
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,1-Dichloroethene	ND	1
1,2-Dichloropropane	ND	1
1,3-Dichloropropane	ND	1
2,2-Dichloropropane	ND	1
1,1-Dichloropropene	ND	1
Hexachlorobutadiene	ND	1
2-Hexanone	ND	10
Isopropylbenzene	ND	1
4-Isopropyltoluene	ND	1
4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	3
n-Butylbenzene	ND	1
n-Propylbenzene	ND	1
sec-Butylbenzene	ND	1
Styrene	ND	1
tert-Butylbenzene	ND	1
1,1,1,2-Tetrachloroethane	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene (PCE)	ND	1
trans-1,2-DCE	ND	1
trans-1,3-Dichloropropene	ND	1
1,2,3-Trichlorobenzene	ND	1
1,2,4-Trichlorobenzene	ND	1
1,1,1-Trichloroethane	ND	1

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Method Blank

1,1,2-Trichloroethane	ND	1							
Trichloroethene (TCE)	ND	1							
Trichlorofluoromethane	ND	1							
1,2,3-Trichloropropane	0.482	2							J
Vinyl chloride	ND	1							
Xylenes, Total	ND	1							
Surr: 1,2-Dichloroethane-d4	9.492	0	10	0	94.9	87.7	108	0	
Surr: 4-Bromofluorobenzene	10.42	0	10	0	104	88.4	125	0	
Surr: Dibromofluoromethane	10.09	0	10	0	101	83.1	111	0	
Surr: Toluene-d8	9.582	0	10	0	95.8	85.9	109	0	

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 30-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-ST300-05021	Batch ID: R16631	Test Code: E300	Units: mg/L	Analysis Date	9/12/2005	Prep Date					
Client ID:			Run ID: LC_050912A			SeqNo: 399211						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Fluoride	0.5202	0.1	0.5	0	104	90	110	0				
Chloride	4.815	0.1	5	0	96.3	90	110	0				
Phosphorus, Orthophosphate (As P)	4.88	0.5	5	0	97.6	90	110	0				
Sulfate	9.843	0.5	10	0	98.4	90	110	0				
Nitrate (As N)+Nitrite (As N)	3.424	0.1	3.5	0	97.8	90	110	0				

Sample ID	LCS-ST300-05021	Batch ID: R16660	Test Code: E300	Units: mg/L	Analysis Date	9/14/2005	Prep Date					
Client ID:			Run ID: LC_050914A			SeqNo: 400302						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Fluoride	0.4679	0.1	0.5	0	93.6	90	110	0				
Chloride	4.575	0.1	5	0	91.5	90	110	0				
Phosphorus, Orthophosphate (As P)	4.701	0.5	5	0	94.0	90	110	0				
Sulfate	9.279	0.5	10	0	92.8	90	110	0				
Nitrate (As N)+Nitrite (As N)	3.234	0.1	3.5	0	92.4	90	110	0				

Sample ID	LCS ST300-05021	Batch ID: R16660	Test Code: E300	Units: mg/L	Analysis Date	9/14/2005	Prep Date					
Client ID:			Run ID: LC_050914A			SeqNo: 400341						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Fluoride	0.523	0.1	0.5	0	105	90	110	0				
Phosphorus, Orthophosphate (As P)	4.849	0.5	5	0	97.0	90	110	0				
Sulfate	9.705	0.5	10	0	97.1	90	110	0				
Nitrate (As N)+Nitrite (As N)	3.442	0.1	3.5	0	98.3	90	110	0				

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

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CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-ST300-05021	R16676	E300	mg/L	9/15/2005							
Client ID:		Run ID: LC_050915A		SeqNo: 400687							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4769	0.1	0.5	0	95.4	90	110	0			
Chloride	4.684	0.1	5	0	93.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.835	0.5	5	0	96.7	90	110	0			
Sulfate	9.529	0.5	10	0	95.3	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.351	0.1	3.5	0	95.7	90	110	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8767	8767	SW8015	mg/L	9/21/2005 11:05:28 AM	9/16/2005						
Client ID:		Run ID: FID(17A) 2_050920A		SeqNo: 402341							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.532	1	5	0	131	81.2	149	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-D-8767	8767	SW8015	mg/L	9/21/2005 11:36:54 AM	9/16/2005						
Client ID:		Run ID: FID(17A) 2_050920A		SeqNo: 402344							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.253	1	5	0	105	81.2	149	6.532	21.7	23	

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
GRO Ics 2.5ug	R16692	SW8015	mg/L	9/17/2005 2:49:31 AM							
Client ID:		Run ID: PIDFID_050916B		SeqNo: 401084							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.553	0.05	0.5	0	111	82.6	114	0			

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

16/21

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	GRO lcsd 2.5ug	Batch ID: R16692	Test Code: SW8015	Units: mg/L	Analysis Date	9/17/2005 3:19:50 AM	Prep Date				
Client ID:			Run ID: PIDFID_050916B		SeqNo:	401086					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.05	0.5	0	104	82.6	114	0.553	6.15	8.39	

Sample ID	100ng lcs	Batch ID: R16641	Test Code: SW8260B	Units: µg/L	Analysis Date	9/13/2005	Prep Date				
Client ID:			Run ID: VAL_050913A		SeqNo:	399600					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.53	1	20	0	92.6	81.4	130	0			
Toluene	21.99	1	20	0	110	90.8	128	0			
Chlorobenzene	21.46	1	20	0	107	89.6	134	0			
1,1-Dichloroethene	19.24	1	20	0	96.2	75.1	120	0			
Trichloroethene (TCE)	17.35	1	20	0	86.7	75.8	110	0			

Sample ID	100ng lcs	Batch ID: R16656	Test Code: SW8260B	Units: µg/L	Analysis Date	9/14/2005	Prep Date				
Client ID:			Run ID: VAL_050914B		SeqNo:	400222					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.44	1	20	0	97.2	81.4	130	0			
Toluene	22.94	1	20	0	115	90.8	128	0			
Chlorobenzene	22.42	1	20	0	112	89.6	134	0			
1,1-Dichloroethene	21.96	1	20	0	110	75.1	120	0			
Trichloroethene (TCE)	19.14	1	20	0	95.7	75.8	110	0			

17/21

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

CLIENT: Giant Refining Co
 Work Order: 0509109
 Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-8746	Batch ID:	8746	Test Code:	SW8270C	Units:	µg/L	Analysis Date	9/15/2005	Prep Date	9/13/2005
Client ID:				Run ID:	ELMO_050915A	SeqNo:	400761				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	73.54	10	100	0	73.5	11	123	0			
4-Chloro-3-methylphenol	149.3	20	200	0	74.7	15.4	119	0			
2-Chlorophenol	145.1	10	200	0	72.6	12.2	122	0			
1,4-Dichlorobenzene	63.92	10	100	0	63.9	16.9	100	0			
2,4-Dinitrotoluene	70.8	10	100	0	70.8	13	138	0			
N-Nitrosodi-n-propylamine	70.74	10	100	0	70.7	9.93	122	0			
4-Nitrophenol	80.04	50	200	0	40.0	-20.5	87.4	0			
Pentachlorophenol	134.3	50	200	0	67.2	-0.355	114	0			
Phenol	89.48	10	200	0	44.7	7.53	73.1	0			
Pyrene	74.06	15	100	0	74.1	12.6	140	0			
1,2,4-Trichlorobenzene	63.66	10	100	0	63.7	17.4	98.7	0			

Sample ID	LCS-8746	Batch ID:	8746	Test Code:	SW8270C	Units:	µg/L	Analysis Date	9/15/2005	Prep Date	9/13/2005
Client ID:				Run ID:	ELMO_050915A	SeqNo:	400762				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	75.62	10	100	0	75.6	11	123	73.54	2.79	30.5	
4-Chloro-3-methylphenol	153.9	20	200	0	77.0	15.4	119	149.3	3.05	28.6	
2-Chlorophenol	150.3	10	200	0	75.2	12.2	122	145.1	3.55	107	
1,4-Dichlorobenzene	66.08	10	100	0	66.1	16.9	100	63.92	3.32	62.1	
2,4-Dinitrotoluene	76.42	10	100	0	76.4	13	138	70.8	7.63	14.7	
N-Nitrosodi-n-propylamine	68.18	10	100	0	68.2	9.93	122	70.74	3.69	30.3	
4-Nitrophenol	90.32	50	200	0	45.2	12.5	87.4	80.04	12.1	36.3	
Pentachlorophenol	149.8	50	200	0	74.9	3.55	114	134.3	10.9	49	
Phenol	89.98	10	200	0	45.0	7.53	73.1	89.48	0.557	52.4	
Pyrene	73.82	15	100	0	73.8	12.6	140	74.06	0.325	16.3	
1,2,4-Trichlorobenzene	64	10	100	0	64.0	17.4	98.7	63.66	0.533	36.4	

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

18/21

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8742	8742	SW7470	mg/L	9/13/2005	9/13/2005						
Client ID:		Run ID: MI-LA254_050913B		SeqNo: 399553							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004975	0.0002	0.005	0	99.5	75.2	134	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8742	8742	SW7470	mg/L	9/13/2005	9/13/2005						
Client ID:		Run ID: MI-LA254_050913B		SeqNo: 399577							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00498	0.0002	0.005	0	99.6	75.2	134	0.004975	0.102	0	

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8823	8823	SW6010A	mg/L	9/29/2005 9:56:02 AM	9/27/2005						
Client ID:		Run ID: ICP_050929A		SeqNo: 405129							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5041	0.02	0.5	0	101	80	120	0			
Barium	0.4623	0.02	0.5	0	92.5	80	120	0			
Cadmium	0.4612	0.002	0.5	0	92.2	80	120	0			
Calcium	49.25	1	50	0	98.5	80	120	0			
Chromium	0.4698	0.005	0.5	0	94.0	80	120	0			
Lead	0.4653	0.005	0.5	0	93.1	80	120	0			
Magnesium	47.33	1	50	0	94.7	80	120	0			
Potassium	49.46	1	50	0	98.9	80	120	0			
Selenium	0.4445	0.05	0.5	0	88.9	80	120	0			
Silver	0.4625	0.005	0.5	0	92.5	80	120	0			
Sodium	50.78	1	50	0	102	80	120	0			

19/21

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

CLIENT: Giant Refining Co
Work Order: 0509109
Project: Stormwater Separator Effluent Water

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-8823	Batch ID: 8823	Test Code: SW6010A	Units: mg/L	Analysis Date	9/29/2005 9:58:26 AM	Prep Date	9/27/2005			
Client ID:	Run ID: ICP_050929A			SeqNo:	405130						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4967	0.02	0.5	0	99.3	80	120	0.5041	1.48	20	
Barium	0.466	0.02	0.5	0	93.2	80	120	0.4623	0.785	20	
Cadmium	0.4626	0.002	0.5	0	92.5	80	120	0.4612	0.303	20	
Calcium	49.02	1	50	0	98.0	80	120	49.25	0.463	20	
Chromium	0.4692	0.006	0.5	0	93.8	80	120	0.4698	0.137	20	
Lead	0.4666	0.005	0.5	0	93.3	80	120	0.4653	0.289	20	
Magnesium	47.69	1	50	0	95.4	80	120	47.33	0.776	20	
Potassium	50.23	1	50	0	100	80	120	49.46	1.55	20	
Selenium	0.4472	0.05	0.5	0	89.4	80	120	0.4445	0.593	20	
Silver	0.4677	0.005	0.5	0	93.5	80	120	0.4625	1.11	20	
Sodium	50.07	1	50	0	100	80	120	50.78	1.40	20	

20/21

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

9/12/2005

Work Order Number 0509109

Received by AT

Checklist completed by

Alan Dizon
Signature

9/12/05
Date

Matrix

Carrier name Client drop-off

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present Not Shipped
- Custody seals intact on sample bottles? Yes No N/A
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Water - VOA vials have zero headspace? No VOA vials submitted Yes No
- Water - pH acceptable upon receipt? Yes No N/A
- Container/Temp Blank temperature? 1° 4° C ± 2 Acceptable
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Wed 10/5/2005 1:23 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Chavez, Carl J, EMNRD
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Chavez, Carl J, EMNRD
Subject: RE: Weekly Reporting (Week Four)
Attachments:

The Following is a summary of week four

- 1) Oil from our ponds has been removed with Riley completing work on Thursday Sept 29th (see pics from last weeks report titled "update to week three")
- 2) Follow up on OCD/NMED 9/8/05 site visit - Lab results from the old API Separator have been received (see attached lab results). As of 9/9/05, all the oil has been removed from the old API separator and it continues to be oil free. Moreover, due to the fact the above grab sample exceeded NMWQS for some parameters, another grab sample of the effluent will be taken this week and sent for lab analysis which will be forwarded to OCD and NMED. It should be noted the grab sample will be taken from the outlet of the old API separator where it enters Aeration Lagoon #1.
- 3) The Railroad Rack Lagoon has been fully remediated and will be backfilled 10/10/05. A full report with lab analysis and pics will be forward to NMED and OCD via email with regular mail to Wayne and Hope this week.
- 4) A new C 141 spill report was filed this week notifying OCD/NMED of a leak into the secondary of the new API separator. All the liquids from the secondary have been pumped and measures have been taken ensuring the secondary continues to stay dry (i.e., purge pumps). Moreover, work will begin on Monday 10/10/05 to repair the primary with work beginning on the east bay followed by the west bay. This item as been added to the weekly reporting to OCD and NMED and will continue until the problem has been corrected.
- 5) Lab results from AL2 to EP1 (Aug 12, Aug 23, Aug 30, Sept 9, Sept 15, and Sept 21) have been received and will be forward to OCD and NMED this week.
- 6) Our weekly sample from AL2 to EP1 will be taken on Thursday 10/6/05
- 7) Annual ground water sampling is continuing this week on SMW's
- 8) Fuhs was onsite to clean the lower stormwater basin (outfall #1) and also enlarged the basin

-----Original Message-----

From: James Romero
Sent: Thursday, September 29, 2005 9:31 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; 'carlj.chavez@state.nm.us'
Subject: RE: Weekly Reporting (Update to Week three)

The following is an update to our week three report:

- 1) Oil from our ponds has been removed with only a slight sheen remaining (see attached pics). Riley will continue to vacuum with work expected to be completed later this week early next {pic 45 is pond one/pic 46 is aeration 2}
- 2) Our weekly sample from AL-2 to EP1 will be gathered today

-----Original Message-----

From: James Romero
Sent: Wednesday, September 28, 2005 10:18 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Three)

 You forwarded this message on 9/29/2005 10:47 AM.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 9/29/2005 10:30 AM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Cobrain, Dave, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Cobrain, Dave, NMENV
Subject: RE: Weekly Reporting (Update to Week three)
Attachments:  [Picture 045.jpg\(756KB\)](#)  [Picture 046.jpg\(623KB\)](#)

The following is an update to our week three report:

- 1) Oil from our ponds has been removed with only a slight sheen remaining (see attached pics). Riley will continue to vacuum wit be completed later this week early next {pic 45 is pond one/pic 46 is aeration 2}
- 2) Our weekly sample from AL-2 to EP1 will be gathered today

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Sent: Wednesday, September 28, 2005 10:18 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Three)

The following is a summary of week three:

- 1) Riley is continuing work on aeration lagoon 1 and 2
 - Between 9/20/05 - 9/26/05 58 trucks of oily wastewater were removed
 - Loads from the 55,000bbl tanks = 5/200bbl loads of sludge removed from tank and recycled
15 truck loads of water removed
- *Estimated time until pond cleanup is completed is next week
- 2) New boom arrived and will be installed at the inlet to pond 2
- 3) Two new dry monitoring wells were installed by Precision Engineering (GWM-2/GWM-3). Monthly Sampling will begin C
- 4) A soil boring was completed for the proposed firewater pond - a sample was sent to Precision for permeability testing (E
- 5) A soil sample was gathered for OCD and will be held onsite (per discussions with Wayne)
- 6) The old API separator continues to be oil free (we are awaiting lab result from previous sampling)
- 7) Railroad Lagoon sampling is complete. All samples came back clean and the area will be backfilled next week
- 8) 2003 OCD Report Response was completed and mailed 9/27
- 9) Elevations for the Boundary wells are completed and included in the 2003 OCD Response
- 10) Annual Groundwater sampling is underway this week on the OW wells
- 11) " " next week on the SMW wells
- 12) Weekly sampling from aeration 2 into evap pond 1 (AL-2 to EP-1) will be taken 9/29

-----Original Message-----

From: James Romero
Sent: Tuesday, September 20, 2005 10:06 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Two)

The following is a summary of week two:

- 1) Riley is continuing work on aeration lagoon 2
 - Between 9/13/05 - 9/19/05 36 trucks of oily wastewater were removed from aeration lagoon 2
 - Loads from the 55,000bbl tanks = 7/200bbl loads of sludge removed from tank and returned to process
30 truck loads of water removed
- 2) The wastewater line from the Pilot travel center failed causing a spill which was reported to OCD. During this time from Pilot was diverted into pond 9. The pipe was fixed on 9/16 and flow was returned to lagoon 1. However, on 9/17 again which and repaired on 9/17. Again, flow was diverted into pond 9 until the repair was made. This was reported via telephone 9/19. Moreover, a new valve was installed at the Pilot diversion where flows are diverted into pond 9.
- 3) The new chopper pump should arrive this week, however, a new control valve is needed which could delay install
- 4) Weekly lab results were received for the week of 9/5/05 (sampling date 9/9/05) Benzene=ND, Toluene=ND, Ethyl

Evaporation
Pond 1



Aeration Lagoon 2

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Wed 9/28/2005 11:18 AM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Cobrain, Dave, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Three)
Attachments:

The following is a summary of week three:

- 1) Riley is continuing work on aeration lagoon 1 and 2
 - Between 9/20/05 - 9/26/05 58 trucks of oily wastewater were removed
 - Loads from the 55,000bbl tanks = 5/200bbl loads of sludge removed from tank and recycled
15 truck loads of water removed
- *Estimated time until pond cleanup is completed is next week
- 2) New boom arrived and will be installed at the inlet to pond 2
- 3) Two new dry monitoring wells were installed by Precision Engineering (GWM-2/GWM-3). Monthly Sampling will begin October 05
- 4) A soil boring was completed for the proposed firewater pond - a sample was sent to Precision for permeability testing (EM 110-2-1906)
- 5) A soil sample was gathered for OCD and will be held onsite (per discussions with Wayne)
- 6) The old API separator continues to be oil free (we are awaiting lab result from previous sampling)
- 7) Railroad Lagoon sampling is complete. All samples came back clean and the area will be backfilled next week
- 8) 2003 OCD Report Response was completed and mailed 9/27
- 9) Elevations for the Boundary wells are completed and included in the 2003 OCD Response
- 10) Annual Groundwater sampling is underway this week on the OW wells
- 11) " " next week on the SMW wells
- 12) Weekly sampling from aeration 2 into evap pond 1 (AL-2 to EP-1) will be taken 9/29

-----Original Message-----

From: James Romero
Sent: Tuesday, September 20, 2005 10:06 AM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Two)

The following is a summary of week two:

- 1) Riley is continuing work on aeration lagoon 2
 - Between 9/13/05 - 9/19/05 36 trucks of oily wastewater were removed from aeration lagoon 2
 - Loads from the 55,000bbl tanks = 7/200bbl loads of sludge removed from tank and returned to process
30 truck loads of water removed
- 2) The wastewater line from the Pilot travel center failed causing a spill which was reported to OCD. During this time, all wastewater from Pilot was diverted into pond 9. The pipe was fixed on 9/16 and flow was returned to lagoon 1. However, on 9/17 the pipe failed again which and repaired on 9/17. Again, flow was diverted into pond 9 until the repair was made. This was reported to OCD via telephone 9/19. Moreover, a new valve was installed at the Pilot diversion where flows are diverted into pond 9 or aeration lagoon 1.
- 3) The new chopper pump should arrive this week, however, a new control valve is needed which could delay installation by 4-6 weeks
- 4) Weekly lab results were received for the week of 9/5/05 (sampling date 9/9/05) Benzene=ND, Toluene=ND, Ethylbenzene=ND, Xylenes Total= 20ppb
A complete report/lab results will be forward to OCD and NMED. Other weekly sampling dates are 9/12/05 and 9/21/05

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Tue 9/20/2005 11:06 AM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Cobrain, Dave, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week Two)
Attachments:

The following is a summary of week two:

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 - Loads from the 55,000bbl tanks = 7/200bbl loads of sludge removed from tank and returned to process
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- 2) The wastewater line from the Pilot travel center failed causing a spill which was reported to OCD. During this time, all wastewater from Pilot was diverted into pond 9. The pipe was fixed on 9/16 and flow was returned to lagoon 1. However, on 9/17 the pipe failed again which and repaired on 9/17. Again, flow was diverted into pond 9 until the repair was made. This was reported to OCD via telephone 9/19. Moreover, a new valve was installed at the Pilot diversion where flows are diverted into pond 9 or aeration lagoon 1.
- 3) The new chopper pump should arrive this week, however, a new control valve is needed which could delay installation by 4-6 weeks
- 4) Weekly lab results were received for the week of 9/5/05 (sampling date 9/9/05) Benzene=ND, Toluene=ND, Ethylbenzene=ND, Xylenes Total= 20ppb
A complete report/lab results will be forward to OCD and NMED. Other weekly sampling dates are 9/12/05 and 9/21/05
- 5) A conference call was held between OCD, NMED, Precision Engineering, and Giant to discuss the installation of two new monitoring was and and one boring. A report will be sent to OCD and NMED asking for concurrence of our plan prior to drilling.
- 6) Excavation on the RR Lagoon was completed and additional soil samples were taken (lab results expected next week)

-----Original Message-----

From: James Romero
Sent: Thursday, September 15, 2005 1:33 PM
To: 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'DFOUST@state.nm.us'; 'carlj.chavez@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week One)

Wayne, the following is a summary of week one:

- 1) The oil on the old separator was all removed by late Friday (see attached pic). Our maintenance manager is 90% positive that the source of the oil was the FCC unit storm drain. We've ordered absorbents to place in the storm drains
- 2) Between 9/8/05 thru 9/12/05 34 trucks of sludge and 8 trucks of water have been removed.
Evaporation pond one has been cleaned (very little oil remaining) and all efforts have been moved to aeration pond 2 (see attached pic)
- 3) Samples from the old API and aeration 2 into evap pond 1 have been taken and are at the lab
- 4) The diesel spill soil (25 cubic yards) has been moved to the land farm (see pic)
- 5) Water has been removed from the RR Lagoon. Fushe is onsite today excavating additional soil where sampling showed contamination. Aslo, they will back fill the area near the railroad due to concerns about stability of the RR line.
- 6) A hazmat roll off has been ordered to haul all the F037 contaminated soil
- 7) A small spill (20 gallons) occurred 9/14/05 at Marketing tank #4. A formal C-141 was filed on 9/15/05
- 8) As of today we have not received lab analysis for our weekly sample (Hope's weekly sample)
- 9) Butterfly valves have been installed on both stormwater basins

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Fri 9/16/2005 2:27 PM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us; Chavez, Carl J, EMNRD; cobrain.david@state.nm.us
Cc: Steve Morris; Johnny Sanchez
Subject: RE: Spill Report
Attachments:  Picture 039.jpg(2MB)  Picture 040.jpg(2MB)

Attached are photos showing the piping from the storm water basin and the new butterfly valves

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Friday, September 09, 2005 2:33 PM
To: James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us; Chavez, Carl J, EMNRD; cobrain.david@state.nm.us
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

Thanks James for you quick response.

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Fri 9/9/2005 2:38 PM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us; Chavez, Carl J, EMNRD; 'cobrain.david@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

Wayne

Give me a call when your free I'd like discuss the action items from yesterdays inspection: We have issued high priority work orders to install butterfly valves on our storm water outfalls, remove soil impacted from diesel spill to land farm, and pump out water from RR lagoon. These work orders will be completed today. Also, below are other items we discussed during your inspection

- (1) The diesel spill (the 25 cubic yard of soil) was reported to your office on 7/20/05 by Steve Morris which reported a release of 630 gallons of diesel.
- (2) We have taken samples from the old API separator and will rush the analysis
- (3) We have taken Hope's weekly sample, added MTBE, and will also be rushed
- (4) We purchased and rushed ordered boom to install in pond 2
- (4) We have began discussions with Precision regarding new wells
- (5) We believe we have found the source of oil entering the old api. We are 90% sure of the location but will need more time to make a definitive conclusion

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 9/15/2005 2:32 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD; Cobrain, Dave, NMENV
Cc: Ed Riege; Steve Morris; Johnny Sanchez
Subject: RE: Weekly Reporting (Week One)
Attachments:  Picture 031.jpg(747KB)  Picture 033.jpg(1MB)  Picture 035.jpg(723KB)  Picture 037.jpg(1MB)

Wayne, the following is a summary of week one:

- 1) The oil on the old separator was all removed by late Friday (see attached pic). Our maintenance manager is 90% positive that the source of the oil was the FCC unit storm drain. We've ordered absorbents to place in the storm drains
- 2) Between 9/8/05 thru 9/12/05 34 trucks of sludge and 8 trucks of water have been removed. Evaporation pond one has been cleaned (very little oil remaining) and all efforts have been moved to aeration pond 2 (see attached pic)
- 3) Samples from the old API and aeration 2 into evap pond 1 have been taken and are at the lab
- 4) The diesel spill soil (25 cubic yards) has been moved to the land farm (see pic)
- 5) Water has been removed from the RR Lagoon. Fushe is onsite today excavating additional soil where sampling showed contamination. Also, they will back fill the area near the railroad due to concerns about stability of the RR line.
- 6) A hazmat roll off has been ordered to haul all the F037 contaminated soil
- 7) A small spill (20 gallons) occurred 9/14/05 at Marketing tank #4. A formal C-141 was filed on 9/15/05
- 8) As of today we have not received lab analysis for our weekly sample (Hope's weekly sample)
- 9) Butterfly valves have been installed on both stormwater basins

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Friday, September 09, 2005 1:05 PM
To: James Romero
Subject: RE: Weekly Reporting

We will call you tuesday.

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Fri 9/9/2005 1:07 PM
To: Price, Wayne, EMNRD
Subject: Weekly Reporting

Wayne, Lets plan on me getting our weekly to you every Wednesday.

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Friday, September 09, 2005 11:55 AM
To: James Romero
Subject: RE: Spill Report (daily update for 8/

James, you may back off of the daily report and submit weekly until the emergency is over.

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505





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Monzeglio, Hope, NMENV

From: dave cobrain [dave.cobrain@hotmail.com] **Sent:** Tue 9/13/2005 2:49 PM
To: Foust, Denny, EMNRD; Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Kieling, John, NMENV
Subject: September 8, 2005 Meeting Summary
Attachments:  API release mtg summary 9-8-05.doc(35KB)

Hope/Wayne/Denny,

Attached is a summary of the hazardous waste issues identified during our meeting at Ciniza on September 8, 2005. This summary only addresses hazardous waste issues and doesn't include all the other issues covered during the meeting. Wayne, this may help with your NOV. At this point, HWB will wait to see if Giant can resolve everything before we take any additional action. We'd like to go back out with you in November to follow up on Giant's cleanup efforts. It sounds as if the old API might be receiving releases from the FCC unit storm (?) drain. If so, that could be K170 waste, but we need more information to make that determination. Give me a call if you have questions.

Dave

New email address - dave.cobrain@hotmail.com

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**MEETING SUMMARY
GIANT REFINING COMPANY – CINIZA REFINERY
SITE VISIT
SEPTEMBER 8, 2005**

The following summarizes hazardous waste releases at Giant Refining Company's Ciniza refinery based on a meeting between NMED, OCD and representatives of Giant Refining Company on September 8, 2005. The releases are related to events that reportedly occurred in August and September 2005 in the vicinity of the API Separator, Aeration Ponds 1 and 2, and the Evaporation Ponds.

API release #1:

A pipe failure occurred between the (new) API separator and benzene stripper #2. The release was the result of failure of a pump that conveys water from the API separator to the benzene strippers. Giant estimates that approximately 750 gallons of wastewater was released to a ditch, located on the east and north sides of the Aeration Ponds and Evaporation Pond 1, that drains downhill toward the west toward a storm water retention pond located west of Evaporation Pond 10. Approximately 5-10 cubic yards of soil contaminated by the release were removed from the ditch and stockpiled in the OCD land farm. The release occurred downstream of the API separator and upstream of the benzene strippers and aggressive biologic treatment (ABT) system; therefore, the waste codes for the released wastewater are D018 and F037 and, potentially, F038.

The pump was repaired in approximately two days. During the repair period, all refinery wastewater was routed from the API separator through benzene stripper #1 (approximately 60-120 gpm). Benzene was detected at a concentration (1 mg/L) greater than the maximum concentration for toxicity characteristic of 0.5 mg/L in a sample of Evaporation Pond 1 influent water (from Aeration Pond 2), collected during the period that benzene stripper #2 was off line. Therefore, the wastewater discharged from Aeration Pond 1 to Evaporation Pond 1 was characteristic for benzene (D018) during the period when all refinery wastewater was routed through benzene stripper #1. Benzene was not detected at a concentration greater than the toxicity characteristic of 0.5 mg/L in a sample of Evaporation Pond 1 effluent water collected at the discharge point to Evaporation Pond 2 during the same period.

Based on an estimated average flow of 90 gpm for two days (2880 minutes) the volume of characteristic hazardous waste (D018) discharged to Evaporation Pond 1 was approximately 259,200 gallons (6,171 barrels). Concentrations of benzene in wastewater samples collected from the effluent discharged from Aeration Pond 2 to Evaporation Pond 1 decreased to less than 100 µg/L after benzene stripper #2 resumed operation.

API release #2:

A second release occurred during a storm event when a weir, located upstream from the API separator overflowed. The wastewater also was released to the ditch that runs east

Giant Ciniza Meeting Summary
September, 8 2005

and then north of the Aeration Ponds and Evaporation Pond 1 and downhill to the west toward the storm water retention pond located west of Evaporation Pond 10. Approximately 10 cubic yards of soil contaminated by the release were removed from the ditch after this incident and stockpiled in the OCD land farm. The release occurred upstream of the API separator; therefore, the waste codes for the released wastewater are D018 and F037 and, potentially, F038.

API release #3:

Giant discovered breakthrough of oil and sludge from the API separator resulting in the release of oil to the benzene strippers, aeration ponds and evaporation ponds. The breakthrough resulted from a pump failure in the API separator sump. Giant is currently recovering the oil in the sump using a vacuum truck and plans to replace the pump. NMED and OCD representatives observed oil on the water surface in the Aeration Ponds, Evaporation Pond 1, Evaporation Pond 2 and Evaporation Pond 10 on September 8, 2005. The release of oil and sludge from the API separator sump includes waste codes K051 and F037, K049 and, potentially, F038.

Giant is currently using booms and a vacuum truck to recover phase-separated hydrocarbons from Evaporation Pond 1 and anticipates recovering the phase-separated hydrocarbons present in Evaporation Pond 2. Giant attributed the staining observed along a large portion of the shoreline of Evaporation 2 to the release from the API separator sump.

Old API release:

A black layer of oil was observed floating on the water in the old API separator. Giant reported that the thickness of the oil was 2 inches or less and was observed after a storm event. The source of the oil was unknown at the time of the site meeting. Giant speculated that the source was either somewhere in the process area or possibly from Crude Tank 101, which had recently been emptied and was undergoing cleaning to remove residual sludge (crude tank sediment [bottoms] K169) so that the seal on the floating roof could be replaced. The old API separator discharges directly to Aeration Pond 1. Giant had not yet tested the oil to determine the fuel fingerprint. Giant reported that they had been attempting to identify the source of the oil for the previous two weeks and would continue to investigate until they were able to determine the source of the release.

Monzeglio, Hope, NMENV

From: Price, Wayne, EMNRD
To: jromero@giant.com
Cc: Monzeglio, Hope, NMENV
Subject: Spill report dates:
Attachments:

Sent: Tue 9/13/2005 8:37 AM

Dear James:

The weir box spill C-141 shows that the date and hour of cocurrence was 8/15/05 but the date on the report where you signed off is 8/03/05. Please explain.

Also when did Giant first discover that oil was being discharged into the Evap ponds?

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 9/15/2005 10:33 AM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; David Kirby; Johnny Sanchez
Subject: When did Giant discover oil being discharged into ponds
Attachments:

Wayne,

In regards to your question "When did Giant first discover that oil was being discharged into the evaporation ponds?" Since 1997 Giant has experienced intermittent discharges of oil into our ponds mainly from problems with the old API separator. A new API was constructed and put into service to help alleviate these issues. However, as you are aware, we have been experiencing problems with the new API sump pump. Prior discharges of oil into our ponds have not compared to the magnitude and volume of the spill reported 8/15/05 and observed by your office on 9/8/05.

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Monzeglio, Hope, NMENV

From: Ed Riege [eriege@giant.com]
To: Monzeglio, Hope, NMENV
Cc:
Subject: RE: 9/8/05 visit
Attachments:

Sent: Tue 9/13/2005 11:25 AM

Thanks, I'll pass this on internally and we have begun work on some of the items.
 Ed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Tuesday, September 13, 2005 11:07 AM
To: eriege@giant.com; jromero@giant.com; smorris@giant.com
Cc: Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Subject: 9/8/05 visit

Ed

Below is a summary from NMED and OCD's site visit that occurred on 9/8/05. These comments are from NMED only and separate from OCD. OCD will follow up with their comments from the site visit separately.

1. NMED and OCD changed the daily spill report updates pertaining to the API Separator status and spill cleanup from a daily basis to a weekly basis.
2. NMED requirement of weekly effluent sample from aeration lagoon (AL) 2 to evaporation pond (EP) 1, the analytical analysis for 8260 short list must include MTBE.
3. NMED and OCD are requiring Giant to install two monitoring wells. One well must be installed on the NW corner of EP 1 and the other monitoring well must be located in the NW corner of Aeration Lagoon 2. The monitoring wells must be installed approximately 20 feet below grade but above the sand stringer lens that GWM-1 was completed in. The wells must be installed in the clay to determine if the AL's and EP's are leaking. Giant must submit a letter that describes the proposed well installation activities and include the proposed well design and a map indicating the monitoring well locations.
3. Groundwater monitoring: It was agreed by NMED and OCD, that monitoring wells having extremely slow recharge rates do not need require three well purge volumes. These wells must be bailed dry to ensure the sample is from formation water prior to sampling. All sampling activities must be documented and described in the yearly groundwater monitoring report.
4. Giant will provide NMED and OCD with well casing elevations and the measurements of the well stick up (measurement from the concrete pad to the top of the well casing that exists above ground).
5. NMED will send Giant a letter requesting a Remedy Completion Report for Rail Road Rack Lagoon. This will include reporting requirements and confirmation that this report will also satisfy OCD closure requirements.
6. Proposed fire water storage area - The following was discussed: Giant will need to advance a soil boring in the center of the proposed basin and collect a sample for permeability testing. The boring must be drilled to the Sonsela to determine its location within the basin. Wayne Price requested a sample of the clay be sent to him. OCD will likely require that this basin be lined. Giant must correspond with OCD for requirements but cc NMED on all correspondence.

7. OCD is requiring valves be put on the end of the storm water discharge pipes to allow for shutoff in the event of an emergency to prevent the release of contaminants offsite. Details will be discussed with OCD.

8. A sample of the oil present on the storm water must be collected from the Old API Separator and analyzed for General Chemistry, EPA Method 8260 full suite, EPA Method 8270 full suites, RCRA 8 metals totals and fuel fingerprint. NMED requires Giant to identify the source of oil.

If you have questions please call me.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 428-2545
Fax: (505)-428-2567
hope.monzeglio@state.nm.us

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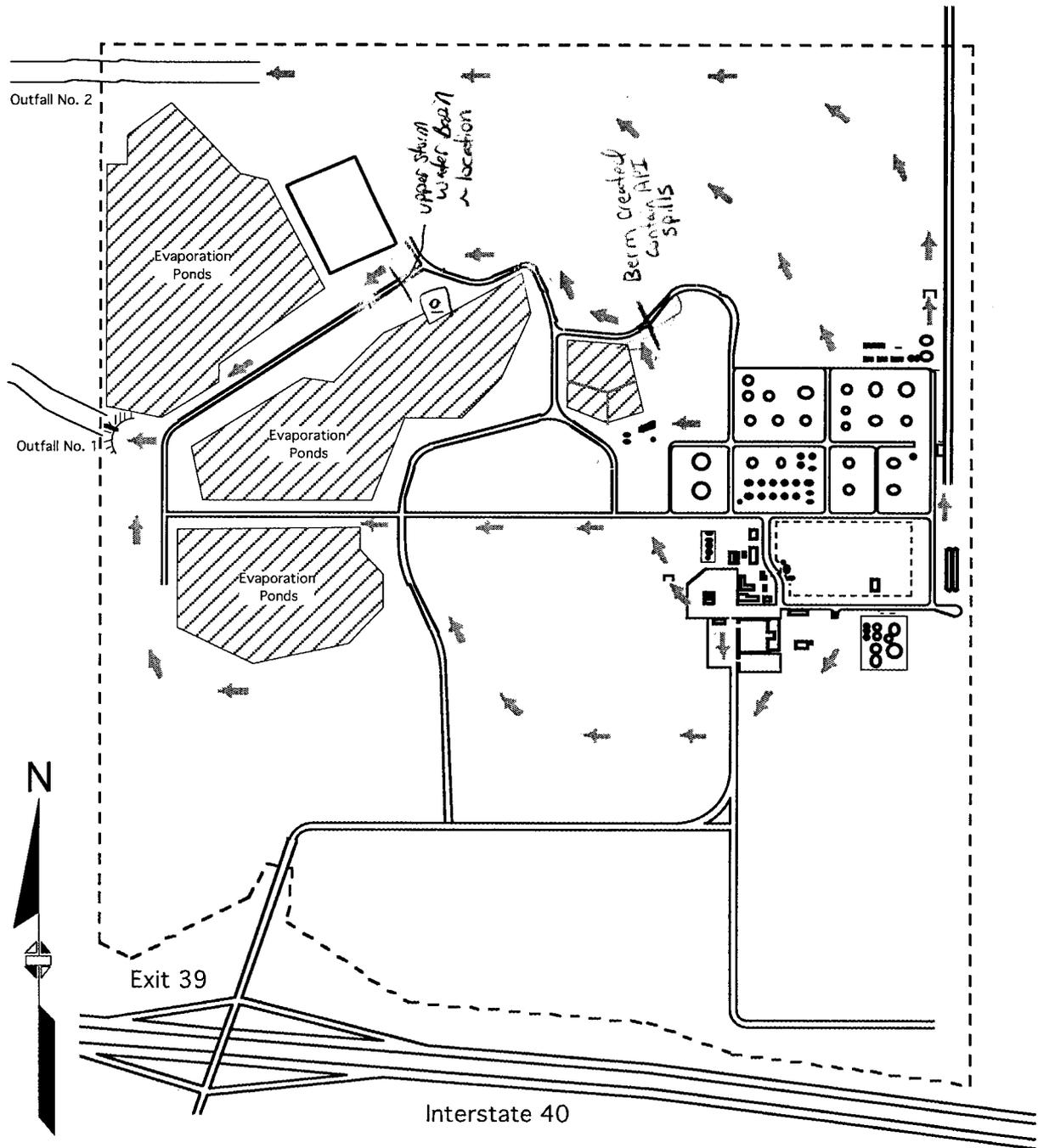
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Storm Water Pollution Prevention Plan	Revision 3
Annex 13 – Stormwater Pollution Prevention Plan	4/28/04

Received site visit 9/8/05

Figure No. 3
Property Site Map
Unconfined Storm Water Flow Direction



 You replied on 9/12/2005 3:27 PM.

Monzeglio, Hope, NMENV

From: Ed Riege [eriego@giant.com]
To: Monzeglio, Hope, NMENV
Cc:
Subject: RE: sampling
Attachments:

Sent: Mon 9/12/2005 2:58 PM

The lab stated they can and will do a fuel fingerprint.
 Take care
 Ed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Monday, September 12, 2005 3:14 PM
To: Ed Riege
Cc: Price, Wayne, EMNRD; Cobrain, Dave, NMENV; James Romero; Steve Morris; Ted Gonzales; Ed Rios
Subject: RE: sampling

Ed

Thanks for the update. If the lab can do a fuel fingerprint on the effluent sample from the Old API Separator, have that analyzed.

Thanks Hope

Hope Monzeglio
 Environmental Specialist
 New Mexico Environment Department
 Hazardous Waste Bureau
 2905 Rodeo Park Drive East, BLDG 1
 Santa Fe NM 87505
 Phone: (505) 428-2545
 Fax: (505)-428-2567
hope.monzeglio@state.nm.us

From: Ed Riege [mailto:eriego@giant.com]
Sent: Mon 9/12/2005 2:13 PM
To: Monzeglio, Hope, NMENV
Cc: Price, Wayne, EMNRD; Cobrain, Dave, NMENV; James Romero; Steve Morris; Ted Gonzales; Ed Rios
Subject: RE: sampling

Hope, I just got off the phone with the Ciniza maintenance manager Ted Gonzales and he stated that the oil on the old separator was all removed by late Friday so there is no oil to sample. They are almost positive that the source of the oil was the FCC unit storm drain, I will keep you posted.
 Thanks Ed

-----Original Message-----

From: Ed Riege
Sent: Monday, September 12, 2005 2:56 PM
To: 'Monzeglio, Hope, NMENV'
Cc: 'wayne.price@state.nm.us'; 'dave.cobrain@state.nm.us'; James Romero; Steve Morris
Subject: RE: sampling

Hope,

I am at Bloomfield today, James is off and Steve was in Albuquerque this morning delivering a sample of effluent water from the old API separator that was taken on Friday. The oil present on the stormwater in the old API separator is about 1/8 to 3/16 inch thickness. The design of the separator will not allow this oil to be discharged to the ponds. The oil is skimmed off with a separator skimmer. Steve will call the lab and see if

they can do a fuel fingerprint on the effluent and also order general chemistry in addition to the 8260 and 8270. Do you still want the oil sampled and analyzed? Steve said the lab considers 72 hours as rush. Thanks Ed

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Monday, September 12, 2005 10:02 AM
To: jromero@giant.com; eriege@giant.com; smorris@giant.com
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Subject: sampling

Ed and James

I left you both voice messages but was cut off. My voice mail pertains to the following.

The sample collected from the old API Separator, should be a sample of oil present on the storm water and analyzed for General Chemistry, EPA Method 8260 full suite, EPA Method 8270 full suite, RCRA 8 metals totals and fuel fingerprint.

James in reference to rush analysis, for the weekly sample from AL2 to EP1 and the old API Separator sample can be a 72 hour turn around.

I will be sending an email that summarizes NMED and OCD's visit.

If you have questions give me a call.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 428-2545
Fax: (505)-428-2567
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From: James Roman

TO: Dave Cobrain

COMPANY: NMCO

Fax # 505-428-2567

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DATE: Sept 9, 2005

TIME: _____

REGARDING: Dave, I meant to give you a copy of this
Memo. Can we discuss this as it relates to our
meeting yesterday.

Thanks

Have a nice day!

James

FAXBACK 12348
PPC 9502.1984(01)

OILY WASTEWATER TREATMENT PONDS, PERMITTING COVERAGE OF

December 7, 1984

MEMORANDUM

SUBJECT: Region VIII Policy
Oily Wastewater Treatment Ponds

FROM: John H. Skinner, Director
Office of Solid Waste (WH-562)

TO: Robert L. Duprey, Director
Region 8
Air and Waste Management Division (8AW-WM)

We have reviewed the proposed Region VIII position discussed in your memos dated May 1 and October 12, 1984 that define permitting coverage of refinery wastewater treatment ponds. As your staff may have informed you, there have been several meetings between my staff and yours to discuss this problem. We have also met with Chevron, Phillips, Tosco and API and, separately, with Region IX to discuss the issue. We share your concern about the threat posed to ground and surface waters by some of the unlined wastewater ponds that treat or store oily wastewaters. However, we believe that the similarity of downstream unit sludges (in terms of lead and chromium levels) to those found in the API Separator are not a sufficient basis for defining the material in the downstream units as API Separator Sludge. In fact, the similarity of these sludges was a significant factor in our decision to move forward on an expanded listing to regulate these pond sludges.

Specifically, we are planning in a forthcoming listing to regulate oil/water/solids separation sludges generated in the wastewater treatment system prior to biological treatment. This listing was originally proposed in November of 1980. We expect to issue a notice identifying all of the available data in support of the listing and to provide some clarifications in response to previous comments. Current plans are to promulgate that listing by late summer.

While the listing revisions should cover most sludges generated in these ponds, we realize that does not address your

short term problem. We do have some suggestions in this regard. Section 206 of the Hazardous and Solid Waste Amendments of 1984 provides that persons obtaining RCRA permits must undertake corrective action for all releases of hazardous constituents from any solid waste management unit as a condition of obtaining the RCRA permit. Thus, if a refinery pond is releasing hazardous constituents and the refinery seeks a RCRA permit for any unit at the facility, the refinery would have to undertake corrective action for the releases from the pond. (This could be done either through the permit, or pursuant to an interim status compliance order.) This principle applies even if the pond is not considered to hold hazardous waste, since Section 206 applies to releases of hazardous constituents from solid waste management units.

A second option for addressing these pond sludges is to regulate the wastes as hazardous based on their exhibiting one or more of the characteristics of hazardous waste (see 40 CFR § 261.21-24). You mentioned this option in your recent letter with respect to EP Toxicity. However, your staff seems to have overlooked corrosivity (high pH has been found in some COD ponds) and reactivity (§ 261.23(a)(5)). It is likely that some refinery pond sludges will contain excessive levels of reactive sulfides.

The final option that could be used to deal with downstream impoundments and basins is applicability of the mixture rule. It is imperative, however, that your staff understand the proper framework for the application of the mixture rule. To maintain that a pond is regulated because an API Separator is an inherently inefficient unit and allows sludge to be carried through to a pond, is inaccurate. Likewise, downstream oxidation ponds are not regulated simply because they sometimes receive flow that has bypassed the API Separator. In both cases, the listed API Separator Sludge has not yet been generated. Rather, API Separator Sludge is generated when it is deposited in the bottom of an API Separator. The mixture rule is relevant only in those cases where previously deposited sludge is scoured, resuspended, and then carried out of the unit with the wastewater. If the Region can make a case for scouring from a separator, the mixture rule is applicable and the wastewater becomes a hazardous waste until delisted or discharged to a stream subject to regulation under the Clean Water Act.

The burden of proof in the demonstration of scouring is upon the Agency. Such an argument, although technically complex, can be made based on well established hydrodynamic principles. Realizing that there are limited resources and capability for developing such an argument by the Regions, we have (at the request of your staff) taken an active role in the development of guidance for the application of this argument. Attached to this memo is a preliminary list of factors that may be required to

establish the occurrence of scouring from a given separator. These points are being provided at this time to facilitate the initiation of information gathering in the more serious cases.

We have also requested that the Office of Waste Programs Enforcement (OWPE) develop more thorough guidance. That effort is being conducted by their contractor (Metcalf & Eddy). We anticipate that your staff will be contracted by them in the near future. The contractor should be able to provide some direct assistance to your staff in some specific cases, thereby serving the dual purpose of training and resolution of specific factors of concern. Mike Barclay (FTS: 475-8727) of OWPE is the Headquarters lead on that project and should be contacted for any further information. Ben Smith of my staff (FTS: 475-8551) is our technical expert in this matter and the lead on our study of petroleum refineries and their wastes. Do not hesitate to contact him if additional questions arise pertaining to this or other matters.

cc: RA's Region I-X
Mike Barclay (OWPE)
Steve Siverman (OGC)
Susan Manganello (ORC, Region VIII)

Attachment

Factors To Be Evaluated In Determining The Potential For Separator Sludge Scouring

Sludge Accumulation Practices-Continuous sludge removal from the separator rules out the occurrence of scouring. At the other end of the spectrum are facilities that allow sludge to accumulate to considerable depth. Accumulation to a depth greater than 50% of the flow depth makes scouring probable. Intermediate ranges of accumulation will probably depend more heavily on other factors.



Flow Variability-Unless overloaded, units with maximum-to-minimum, flow ratios at the separator effluent of less than 2 and inlet flow ratios of less than 4 are probably not experiencing much resuspension of sludge.

Poor Separator Design Or Operation-Factors contributing to scour conditions include: excessive, inlet or outlet zone turbulence; nominal horizontal velocities greater than 30 feet per minute; nominal overflow rates (flow/surface area) greater than 10,000 gallons per day/square foot of basin, basins less than 30 feet in length; opera-

tion under pressure (e.g., with a backwater at the inlet of a separator with a frozen surface), settling zone turbulence (sometimes seen as bubbling with solids entrainment).

Separator Effluent Characteristics - Excessive weir loadings (e.g., operation with a suppressed weir, flow depth greater than a foot) facilitate carryover of resuspended particles. visible, large (diameter greater than 1/4 inch) sludge particles in the separator effluent are strong evidence of scouring associated with microbial degradation of deposited sludge.

Sludge Characteristics-Particle size distribution as measured by wet sieve and hydrometer analyses is necessary information to define scour conditions. The presence of coke fines in the wastewater influent is also important because that size of particle (<.1mm) is non-cohesive and highly susceptible to resuspension.

□

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

C. niza

JULY 5, 1991

MEMORANDUM

SUBJECT: Applicability of the "Mixture" Rule To Petroleum Refinery Wastewater Systems

FROM: Sylvia K. Lowrance
Office of Solid Waste

TO: Director, Waste Management Division

Regions I - X

Last fall, EPA added two wastes, F037 and F038, generated in the treatment of petroleum refinery wastewaters to the list of hazardous wastes under 40 C.F.R. 261.31 (55 Fed. Reg. 46354, November 2, 1990). Since then, we have received requests for clarification concerning the application of the "mixture rule" to these listings. This memorandum is intended to provide guidance on this question.

In a December meeting with the American Petroleum Institute (API) and my staff, API discussed what it viewed as a potential conflict between the language of the listing that limits the listed wastes to those generated upstream of aggressive biological treatment units and the preamble discussion of the interaction between the "mixture rule" and the listing. API explained its fear that introduction of a particle of the sludge to non-hazardous wastewater would taint the wastewater and thus convert any downstream units into hazardous waste treatment facilities.

The discussion of the mixture rule in the preamble to the final regulation does not reflect any change in the Agency's position about how the mixture rule works and the circumstances in which a non-hazardous wastewater, i.e., non-listed wastewater, that generates a listed waste would become hazardous.

In response to an expression of concern about this matter in comments filed on the rule, EPA (Response to Comments Background Document) indicated as follows:

With respect to the commenter's concern that all downstream units would be regulated as hazardous as a consequence of application of the mixture rule, the Agency feels that the following points should be made. Generation of a waste does not occur until deposition. It is Agency policy that no mixing occurs in a wastewater treatment unit that manages a non-hazardous [nonlisted] liquid waste even if that liquid generates a hazardous sludge that settles to the bottom of the unit, unless that sludge is in some way dredged up and physically mixed with the

liquid. If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewaters. The position of the Agency in expanding the listing was to ensure the regulation of similarly composed sludges, regardless of where they are generated.

This is consistent with EPA's previous discussions of the applicability of the mixture rule with respect to petroleum refinery wastewater separation sludges. (See attached December 7, 1984 Office of Solid Waste and Emergency Response Memorandum, Subject: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds). Further, the Agency's position is fully explored in the extended discussion of the rule in the final rule concerning the delay of closure for hazardous waste management facilities. See 54 Fed. Reg. 33376, 33387 (August 14, 1989). There, the Agency rejected the position that when non-hazardous waste and a listed hazardous waste are co-mingled and co-managed in the same unit under any circumstances, the entire mixture is considered a listed waste.

The Agency has consistently interpreted the mixture rule not to apply where a non-listed waste is discharged to a unit (i.e., surface impoundment) even if that liquid generates a hazardous sludge, unless the sludge is in some way "mixed" with the liquid (e.g., scoured as a result of operations in the unit). If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewater.

The discussion goes on to recognize that there is a continuum between sludge, the sludge/liquid and the liquid. Within the sludge/liquid interface there may be some mixing but not "mixing" so as to convert the liquid from non-hazardous waste to hazardous. Only in the event of scouring or other physical mixing would the mixture rule come into play.

Were any mixing to occur, it would be confined to the liquid/sludge interface. Levels of hazardous constituents escaping from the hazardous sludge to the non-hazardous liquid are not likely to pose an appreciable risk to human health and the environment. Should the impoundment be dredged so that scouring or other physical mixing occurs, the mixture rule would come into effect. 54 Fed. Reg. 33388.

Under the policy explained above, for example, it is unlikely that any increased turbidity associated with the introduction of water from storm events would create the necessary scouring or physical mixing described above so as to convert non-hazardous wastewater to hazardous. Similarly, for example, the small amount of resuspension of primary sludge associated with the normal operation of a properly designed wastewater treatment system would not render the wastewater hazardous.

cc: RA's Region I-X
Richard Witt (LE-132S)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DECEMBER 7, 1984

MEMORANDUM

SUBJECT: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds

FROM: John He Skinner, Director

Office of Solid Waste (WH-562)

TO: Robert L. Duprey, Director

Region 8

Air and Waste Management Division (8AW-WM)

We have reviewed the proposed Region VIII position discussed in your memos dated May 1 and October 12, 1984 that define permitting coverage of refinery wastewater treatment ponds. As your staff may have informed you, there have been several meetings between my staff and yours to discuss this problem. We have also met with Chevron, Phillips, Tosco and API and, separately, with Region IX to discuss the issue. We share your concern about the threat posed to ground and surface waters by some of the unlined wastewater ponds that treat or store oily wastewaters. However, we believe that the similarity of downstream unit sludges (in terms of lead and chromium levels) to those found in the API Separator are not a sufficient basis for defining the material in the downstream units as API Separator Sludge. In fact, the similarity of these sludges was a significant factor in our decision to move forward on an expanded listing to regulate these pond sludges.

Specifically, we are planning in a forthcoming listing to regulate oil/water/solids separation sludges generated in the wastewater treatment system prior to biological treatment. This listing was originally proposed in November of 1980. We expect to issue a notice identifying all of the available data in support of the listing and to provide some clarifications in response to previous comments. Current plans are to promulgate that listing by late summer.

While the listing revision should cover most sludges generated in these ponds, we realize that does not address your short term problem. We do have some suggestions in this regard. Section 206 of the Hazardous and Solid Waste Amendments of 1984 provides that persons obtaining RCRA permits must undertake corrective action for all releases of hazardous constituents from any solid waste management unit as a condition of obtaining the RCRA permit. Thus, if a refinery pond is releasing hazardous constituents and the refinery seeks a RCRA permit for any unit at that facility, the refinery would have to undertake corrective action for the releases from the pond. (This could be done either through the permit, or pursuant to an interim status compliance order.) This principle applies even if the pond is not considered to hold a hazardous waste, since Section 206 applies to releases of hazardous constituents from solid waste management units.

A second option for addressing these pond sludges is to regulate the wastes as hazardous based on their

exhibiting one or more of the characteristics of hazardous waste (see 40 CFR §261.21 -24). You mentioned this option in your recent letter with respect to EP Toxicity. However, your staff seems to have overlooked corrosivity (high pH has been found in some COD ponds) and reactivity (§261.23(a)(5)). It is likely that some refinery pond sludges will contain excessive levels of reactive sulfides.

The final option that could be used to deal with downstream impoundments and basins is applicability of the mixture rule. It is imperative, however, that your staff understand the proper framework for the application of the mixture rule. To maintain that a pond is regulated because an API Separator is an inherently inefficient unit and allows sludge to be carried through to a pond, is inaccurate. Likewise, downstream oxidation ponds are not regulated simply because they sometimes receive flow that has bypassed the API Separator. In both cases, the listed API Separator Sludge has not yet been generated. Rather, API Separator Sludge is generated when it is deposited in the bottom of an API Separator. The mixture rule is relevant only in those cases where previously deposited sludge is scoured, resuspended, and then carried out of the unit with the wastewater. If the Region can make a case for scouring from a separator, the mixture rule is applicable and the wastewater becomes a hazardous waste until delisted or discharged to a stream subject to regulation under the Clean Water Act.

The burden of proof in the demonstration of scouring is upon the Agency. Such an argument, although technically complex, can be made based on well established hydrodynamic principles. Realizing that there are limited resources and capability for developing such an argument by the Regions, we have (at the request of your staff) taken an active role in the development of guidance for the application of this argument. Attached to this memo is a preliminary list of factors that may be required to establish the occurrence of scouring from a given separator. These points are being provided at this time to facilitate the initiation of information gathering in the more serious cases.

We have also requested that the Office of Waste Programs Enforcement (OWPE) develop more thorough guidance. That effort is being conducted by their contractor (Metcalf & Eddy). We anticipate that your staff will be contacted by them in the near future. The contractor should be able to provide some direct assistance to your staff in some specific cases, thereby serving the dual purpose of training and resolution of specific factors of concern. Mike Barclay (FTS: 475-8727) of OWPE is the Head-quarters lead on that project and should be contacted for any further information. Ben Smith of my staff (FTS: 475-8551) is our technical expert in this matter and the lead on our study of petroleum refineries and their wastes. Do not hesitate to contact him if additional questions arise pertaining to this or other matters.

cc: RA's Region I-X

Mike Barclay (OWPE)
Steve Silverman (OGC)
Susan Manganello (ORC, Region VIII)

Factors To Be Evaluated In Determining The Potential For
Separator Sludge Scouring

Sludge Accumulation Practices - Continuous sludge removal from the separator rules out the occurrence of scouring. At the other end of the spectrum are facilities that allow sludge to accumulate to considerable depth. Accumulation to a depth greater than 50% of the flow depth makes scouring probable. Intermediate ranges of accumulation will probably depend more heavily on other factors.

Flow Variability - Unless overloaded, units with maximum-to-minimum, flow ratios at the separator effluent of less than 2 and inlet flow ratios of less than 4 are probably not experiencing much resuspension of sludge.

Poor Separator Design or Operation - Factors contributing to scour conditions include: excessive, inlet or outlet zone turbulence; nominal horizontal velocities greater than 30 feet per minute; nominal overflow rates (flow/ surface area) greater than 10,000 gallons per day/square foot of basin; basins less than 30 feet in length; operation under pressure (e.g., with a backwater at the inlet of a separator with a frozen surface), settling zone turbulence (sometimes seen as bubbling with solids entrainment).

Separator Effluent Characteristics - Excessive weir loadings (e.g., operation with a suppressed weir, flow depth greater than a foot) facilitate carryover of resuspended particles. Visible, large (diameter greater than 1/4 inch) sludge particles in the separator effluent are strong evidence of scouring associated with microbial degradation of deposited sludge.

Sludge Characteristics - Particle size distribution as measured by wet sieve and hydrometer analyses is necessary information to define scour conditions. The presence of coke fines in the wastewater influent is also important because that size of particle (<.1mm) is non-cohesive and highly susceptible to resuspension.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Fri 9/9/2005 2:38 PM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us; Chavez, Carl J, EMNRD; 'cobrain.david@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report
Attachments:

Wayne

Give me a call when your free I'd like discuss the action items from yesterdays inspection: We have issued high priority work orders to install butterfly valves on our storm water outfalls, remove soil impacted from diesel spill to land farm, and pump out water from RR lagoon. These work orders will be completed today. Also, below are other items we discussed during your inspection

- (1) The diesel spill (the 25 cubic yard of soil) was reported to your office on 7/20/05 by Steve Morris which reported a release of 630 gallons of diesel.
- (2) We have taken samples from the old API separator and will rush the analysis
- (3) We have taken Hope's weekly sample, added MTBE, and will also be rushed
- (4) We purchased and rushed ordered boom to install in pond 2
- (4) We have began discussions with Precision regarding new wells
- (5) We believe we have found the source of oil entering the old api. We are 90% sure of the location but will need more time to make a definitive conclusion

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Tue 9/6/2005 9:52 AM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/
Attachments:

Daily update for Sept 2,3,4, and 5

I was out of the office on Friday for the holiday weekend. Below is a summary of the weekend activities

- 1) 58 trucks of wastewater/oilywater removed over the weekend
- 2) 400 barrels of slop oil was removed from east tank (55,000 barrel tank) and reintroduced
- 3) Visual inspections over the weekend were good

-----Original Message-----

From: James Romero
Sent: Thursday, September 01, 2005 3:10 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 9/1/05

- 1) Continued to clean ponds
- 2) All equipment and material has been scheduled for receipt on or before 10 September 2005
- 3) All new instrumentation has been specified and material requests have been submitted to purchasing
- 4) All new electrical equipment and materials have been specified and material requests have been submitted to purchasing
- 5) Maintenance work on API bay east bay is underway to repair sludge roller
- 6) Visual inspections thru the night were good

-----Original Message-----

From: James Romero
Sent: Wednesday, August 31, 2005 3:04 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 8/31/05

- 1) Removed 17 trucks of water at the 55,000 barrel tanks
- 2) Utilized a 200 barrel truck (underway) to remove sludge from other tank, this will be reintroduced
- 3) visual inspections thru the night were good

-----Original Message-----

From: James Romero
Sent: Tuesday, August 30, 2005 3:13 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 8/30/05

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Thu 9/1/2005 4:09 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/
Attachments:  API Clean Up 29Aug05.xls(24KB)

Daily update for 9/1/05

- 1) Continued to clean ponds
- 2) All equipment and material has been scheduled for receipt on or before 10 September 2005
- 3) All new instrumentation has been specified and material requests have been submitted to purchasing
- 4) All new electrical equipment and materials have been specified and material requests have been submitted to purchasing
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Daily update for 8/31/05

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To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 8/30/05

- 1) New techniques were used today in an effort to suck more oil and less water
- 2) Water is being drained from the water tank and is being put back into the api system
- 3) The oil tank will be pumped out later this week and oil reintroduced into the process
- 4) Conducted our second weekly grab sampled per NMED (tests results on the first sample have not been received)
- 5) visual inspection thru the night were good

-----Original Message-----

From: James Romero
Sent: Monday, August 29, 2005 2:37 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

API AND POND CLEAN UP

29-Aug-05

	Start			Stop
Truck 129	9:48AM			9:56AM
Truck 130	10:00AM			10:07AM
Truck 131	10:14AM			10:23AM
Truck 132	10:28AM			10:36AM
Truck 133	11:00AM			11:10AM
Truck 134	11:26AM			11:36AM
Truck 135	1:19PM			1:30PM
Truck 136	1:35PM			1:40PM
Truck 137	1:59PM			2:08PM
Truck 138	3:57PM			4:03PM
Truck 139	4:05PM			4:14PM
Truck 140	4:20PM			4:28PM
Truck 141	4:31PM			4:39PM
Truck 142	4:45PM			4:53PM
Truck 143	4:55PM			5:08PM
Truck 144	5:09PM			5:20PM
Truck 145	5:22PM			5:32PM
Truck 146	5:33PM			5:48PM
Truck 147	5:50PM			5:59PM
Truck 148	6:15PM			6:24PM
Truck 149	6:27PM			6:37PM
Truck 150	6:42PM			6:50PM

Sludge into Tank

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Wed 8/31/2005 4:03 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/
Attachments:

Daily update for 8/31/05

- 1) Removed 17 trucks of water at the 55,000 barrel tanks
- 2) Utilized a 200 barrel truck (underway) to remove sludge from other tank, this will be reintroduced
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To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 8/30/05

- 1) New techniques were used today in an effort to suck more oil and less water
- 2) Water is being drained from the water tank and is being put back into the api system
- 3) The oil tank will be pumped out later this week and oil reintroduced into the process
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Sent: Monday, August 29, 2005 2:37 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/

Daily update for 8/29/05

- 1) Riley is contuning operations to clean ponds
- 2) Water is now being removed from 55,000 barrel tanks and sent back to API
As of 28Aug05 61 trucks (60barrels/each) of water has been removed from tanks
- 3) Visual Inspections thru the weekend and night were good

Attached are spreadsheets showing truck numbers for pond clean out and water from tanks to api

-----Original Message-----

From: James Romero
Sent: Tuesday, August 23, 2005 2:57 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/22/05 and 8/23/05)

Attached is a spreadsheet showing our daily truck counts for 8/22. Moreover, all operations to clean the ponds are moving forward and making progress. Continued visual inspections during nighttime hours have not documented any new spills around the API.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Mon 8/29/2005 3:37 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/
Attachments:  API Clean Up 26Aug05.xls(24KB)  API Clean Up 27Aug05.xls(24KB)  API Clean up Water 28Aug 05.xls(26KB)

Daily update for 8/29/05

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From: James Romero
Sent: Tuesday, August 23, 2005 2:57 PM
To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us'
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/22/05 and 8/23/05)

Attached is a spreadsheet showing our daily truck counts for 8/22. Moreover, all operations to clean the ponds are moving forward and making progress. Continued visual inspections during nighttime hours have not documented any new spills around the API.

-----Original Message-----

From: James Romero
Sent: Thursday, August 18, 2005 3:17 PM
To: 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'
Cc: Ed Riege; Steve Morris; James Romero; Johnny Sanchez
Subject: RE: Spill Report (daily update for 8/18/05)

Daily update for 8/18/05

- 1) Riley started operations to clean ponds, approximately 4000 barrels were removed today
- 2) Visual inspections thru the night were all good
- 3) Started release of water from lower storm water basin
- 4) Completed spill/remediation plan (should go out tomorrow Friday)

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, August 18, 2005 7:30 AM
To: James Romero
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the

API AND POND CLEAN UP

26-Aug-05

	Start			Stop
Truck 89	8:41AM			8:48AM
Truck 90	9:14AM			9:21AM
Truck 91	9:45AM			9:53AM
Truck 92	10:17AM			10:25AM
Truck 93	10:52AM			11:00AM
Truck 94	11:20AM			11:29AM
Truck 95	11:51AM			12:00PM
Truck 96	1:49PM			1:57PM
Truck 97	2:02PM			2:08PM
Truck 98	2:26PM			2:34PM
Truck 99	2:42PM			2:54PM
Truck 100	2:56PM			3:07PM
Truck 101	3:10PM			3:20PM
Truck 102	3:22PM			3:32PM
Truck 103	3:38PM			3:44PM
Truck 104	4:05PM			4:13PM
Truck 105	4:17PM			4:24PM
Truck 106	6:15PM			6:23PM
Truck 107	6:45PM			7:00PM

Sludge into Tank

API AND POND CLEAN UP

27-Aug-05

	Start			Stop
Truck 108	8:53AM			9:01AM
Truck 109	9:22AM			9:30AM
Truck 110	9:55AM			10:02AM
Truck 111	10:56AM			11:03AM
Truck 112	11:25AM			11:32AM
Truck 113	11:35AM			11:44AM
Truck 114	11:50AM			11:58AM
Truck 115	2:18PM			2:27PM
Truck 116	2:52PM			2:57PM
Truck 117	3:22PM			3:30PM
Truck 118	3:48PM			3:56PM
Truck 119	3:59PM			4:08PM
Truck 120	4:13PM			4:21PM
Truck 121	4:31PM			4:39PM
Truck 122	4:43PM			4:51PM
Truck 123	4:55PM			5:04PM
Truck 124	5:07PM			5:15PM
Truck 125	5:22PM			5:30PM
Truck 126	5:35PM			5:44PM
Truck 127	5:53PM			6:02PM
Truck 128	6:25PM			6:32PM

Sludge into Tank

API AND POND CLEAN UP

28-Aug-05

	Start			Stop
Truck 44	8:10AM			8:19AM
Truck 45	8:20AM			8:27AM
Truck 46	8:33AM			8:40AM
Truck 47	8:45AM			9:01AM
Truck 48	9:03AM			9:10AM
Truck 49	9:16AM			9:27AM
Truck 50	9:28AM			9:35AM
Truck 51	9:40AM			9:56AM
Truck 52	9:58AM			10:06AM
Truck 53	10:16AM			10:26AM
Truck 54	10:28AM			10:43AM
Truck 55	10:45PM			10:58AM
Truck 56	11:00AM			11:10AM
Truck 57	11:14AM			11:25AM
Truck 58	11:27AM			11:34AM
Truck 59	11:40AM			11:50AM
Truck 60	11:52AM			12:00PM
Truck 61	12:14PM			12:22PM

Water taken out of West Tank and put back into API

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Mon 8/29/2005 11:18 AM
To: Monzeglio, Hope, NMENV; James Romero; Ed Riege
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: RE: 1,152,000 gal Release notification form
Attachments:  _0829104719_001.pdf(247KB)

Hope, Attachment #4 titled "Re Aeration Lagoon/Evaporation Pond/Clean Up and Remediation is an internal scope of work put together by our Operations Branch. I included it as additional information. The attachments are as follows (1) lab results; (2) copy of email notification; (3) Diagram of API; (4) Internal scope of work titled "...Aeration Lagoon..."; and (5) Cover page of Riley's EMS. Due to the time constraints on notification and time needed to have the map made, I did not include it. However, attached to this email you will find an electronic version of that map.

Moreover, I will draft a more detail "knowledge of process" discussion.

If you have any questions, I'll be in all week. Sorry I missed your call on Friday I was out sick

-----Original Message-----

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Friday, August 26, 2005 10:40 AM
To: jromero@giant.com; eriege@giant.com
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: 1,152,000 gal Release notification form

James

I have questions pertaining to the *Release Notification and Corrective Action Operator* form pertaining to the 1,152,000-gallon release. The *Remediation Plan* identifies 5 attachments. I am missing attachment 4 and have 6 attachments labeled.

Is attachment 4 titled "*Aeration Lagoon/Evaporation Pond/Clean up and Remediation*? If so then I think the attachments were mislabeled. Please identify the names of each attachment.

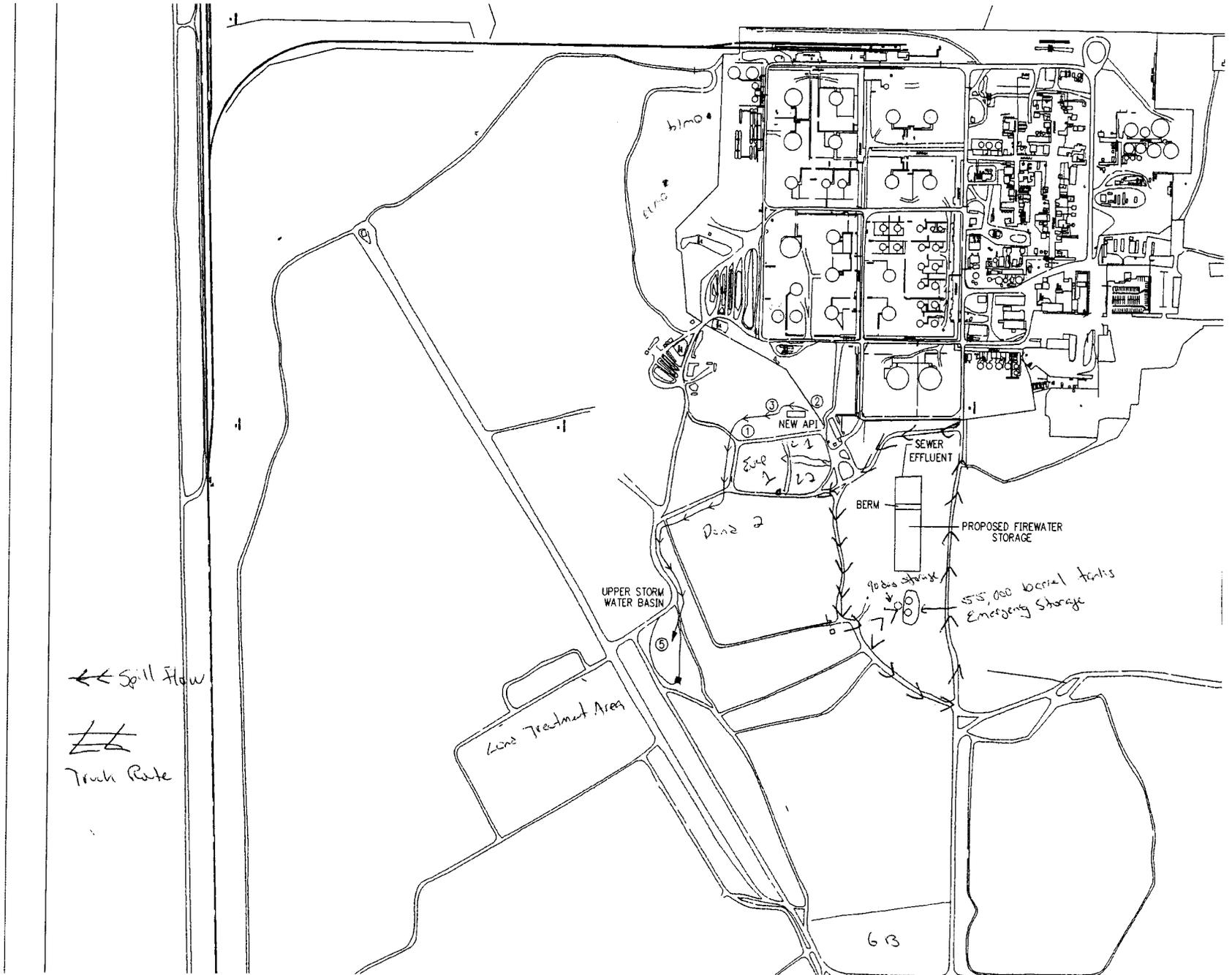
The Remediation Plan under "*Environmental Consequences*" the second paragraph discusses "knowledge of the process" and sludge material (F, K wastes) dropped out before exiting the API, (see attachment 3). Giant must provide more information regarding the "knowledge process." This information should include where in the process the sludge drop out occurs, identify specifically on the diagram where this process takes place (e.g. highlight the route), and provide a written description of this "knowledge process," including how, where, and when the F and K listed wastes drop out before exiting the API separator.

Under "*ON-GOING ACTIONS*," paragraph 2 mentions a map. I do not think I received this map, as there is not a map identifying two 55,000-barrel tanks or truck routes. Please send me the map if there is one.

If you have questions please contact me at 505-428-2545.

Thanks

Hope



Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: James Romero
Subject: Pond 1 and lagoon update 8-26-05
Attachments:

Sent: Fri 8/26/2005 11:14 AM

Hope and Wayne,
Riley Ind. vacuum trucks assisted by Giant maintenance
continue to skim oil from evaporation pond 1.
Nothing out of the ordinary to report today.
Thanks, Steve Morris

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Monzeglio, Hope, NMENV

From: Steve Morris [smorris@giant.com]
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: James Romero
Subject: Daily update lagoons and pond 1.

Sent: Thu 8/25/2005 2:18 PM

Attachments:

Hope and Wayne,
James is off sick today so I'll let you know the status of the clean up.
Today (8/25/05) the tanks are being dewatered and oil removal continues
on evaporation pond 1 using Riley's vacuum trucks.
I have repositioned one of the aerators on lagoon 2 in order to make it
easier
to use the boom with the vacuum trucks.
Thanks,
Steve Morris

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Tue 8/23/2005 3:56 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/22/05 and 8/23/05)
Attachments:  [API Clean up 22 Aug 05.xls\(24KB\)](#)

Attached is a spreadsheet showing our daily truck counts for 8/22. Moreover, all operations to clean the ponds are moving forward and making progress. Continued visual inspections during nighttime hours have not documented any new spills around the API.

-----Original Message-----

From: James Romero
Sent: Thursday, August 18, 2005 3:17 PM
To: 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'
Cc: Ed Riege; Steve Morris; James Romero; Johnny Sanchez
Subject: RE: Spill Report (daily update for 8/18/05)

Daily update for 8/18/05

- 1) Riley started operations to clean ponds, approximately 4000 barrels were removed today
- 2) Visual inspections thru the night were all good
- 3) Started release of water from lower storm water basin
- 4) Completed spill/remediation plan (should go out tomorrow Friday)

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, August 18, 2005 7:30 AM
To: James Romero
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 8/17/2005 12:27 PM
To: Price, Wayne, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby

API AND POND CLEAN UP

22-Aug-05

Start

Stop

Truck 70		4:19PM				4:27PM
Truck 71		4:35PM				4:45PM
Truck 72		4:50PM				5:00PM
Truck 73		5:06PM				5:14PM
Truck 74		5:38PM				5:47PM
Truck 75		6:05PM				6:14PM
Truck 76		6:17PM				6:25PM
Truck 77		6:38PM				6:47PM
Truck 78		6:48PM				6:55PM

Monzeglio, Hope, NMENV

From: Monzeglio, Hope, NMENV **Sent:** Mon 8/22/2005 2:10 PM
To: eriege@giant.com; James Romero [jromero@giant.com]
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Subject: Spill sampling
Attachments:

James

I am following up with an email from our phone conversation pertaining to the spill.

1. All sampling results, hazardous waste determinations, and waste disposal activities must be documented and submitted to NMED.
2. Giant must collect samples of effluent discharged from Aeration Lagoon 2 to Evaporation Pond 1 on a weekly basis until four weeks after the API Separator repair and monthly thereafter. Giant must submit the samples for analytical analysis to include: EPA Method 8270, EPA Method 8021 (BTEX), and priority pollutant metals (totals and dissolved). After receiving the analytical results from the first two sampling events, the required analytical analyses will be revisited and possibly modified. Giant must also provide NMED with the flow rate from Aeration Lagoon 2 to Evaporation Pond 1.
3. Giant must calculate the volume of oil spilled and water released during the spill events.

If you have any questions please give me a call.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 428-2545
Fax: (505)-428-2567
hope.monzeglio@state.nm.us

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Mon 8/22/2005 2:01 PM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc:
Subject: Daily Report for August 19-21
Attachments:  [API Clean Up 21Aug05.xls\(24KB\)](#)  [API Clean Up 20Aug05.xls\(27KB\)](#)  [API Clean Up 19Aug05.xls\(28KB\)](#)

<<API Clean Up 21Aug05.xls>> <<API Clean Up 20Aug05.xls>> <<API Clean Up 19Aug05.xls>>

The attached spreadsheets are the truck loads over the weekend (each truck carries approximately 80 barrels). Our future goal will be to have one additional truck at the API (in lieu of the API sump pump). There were no reports of any spills during this time period.

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API AND POND CLEAN UP

19-Aug-05

	Start	Stop
Truck 8	8:00AM	8:45AM
Truck 9	8:50AM	9:00AM
Truck 10	9:10AM	9:20AM
Truck 11	9:35AM	9:46AM
Truck 12	9:50AM	10:00AM
Truck 13	10:02AM	10:11AM
Truck 14	10:25AM	10:35AM
Truck 15	10:41AM	10:50AM
Truck 16	11:00AM	11:10AM
Truck 17	11:15AM	11:25AM
Truck 18	11:30AM	11:42AM
Truck 19	12:43PM	12:50PM
Truck 20	12:58PM	1:06PM
Truck 21	1:12PM	1:20PM
Truck 22	1:25PM	1:37PM
Truck 23	1:40PM	1:50PM
Truck 24	1:55PM	2:06PM
Truck 25	2:11PM	2:20PM
Truck 26	2:25PM	2:35PM
Truck 27	2:45PM	2:55PM
Truck 28	3:05PM	3:10PM
Truck 29	3:12PM	3:18PM
Truck 30	4:00PM	4:10PM
Truck 31	4:17PM	4:27PM
Truck 32	4:30PM	4:40PM
Truck 33	4:45PM	4:55PM
Truck 34	5:00PM	5:10PM
Truck 35	5:15PM	5:25PM
Truck 36	5:30PM	5:40PM
Truck 37	5:45PM	5:55PM
Truck 38	6:25PM	6:35PM
Truck 39	6:40PM	7:00PM

API AND POND CLEAN UP

20-Aug-05

Start

Stop

Truck 40		10:18AM				10:28AM
Truck 41		10:30AM				10:40AM
Truck 42		10:50AM				11:00AM
Truck 43		11:08AM				11:15AM
Truck 44		11:17AM				11:33AM
Truck 45		11:36AM				11:49AM
Truck 46		1:17PM				1:29PM
Truck 47		1:35PM				1:46PM
Truck 48		1:50PM				2:07PM
Truck 49		2:12PM				2:26PM
Truck 50		2:40PM				2:54PM
Truck 51		3:07PM				3:15PM
Truck 52		3:28PM				3:37PM
Truck 53		4:22PM				4:32PM
Truck 54		4:41PM				4:51PM
Truck 55		5:00PM				5:11PM
Truck 56		5:21PM				5:34PM
Truck 57		5:45PM				5:53PM
Truck 58		6:00PM				6:10PM
Truck 59		6:19PM				6:35PM
Truck 60		6:40PM				7:00PM

API AND POND CLEAN UP

21-Aug-05

Start

Stop

Truck 61		9:50AM				9:58AM
Truck 62		10:02AM				10:11AM
Truck 63		10:19AM				10:27AM
Truck 64		10:36AM				10:44AM
Truck 65		10:51AM				11:00AM
Truck 66		11:08AM				11:16AM
Truck 67		11:20AM				11:28AM
Truck 68		11:42AM				11:50AM
Truck 69		11:53AM				12:00AM

Monzeglio, Hope, NMENV

To...

Cc...

Bcc...

Subject: FW: Spill Report (daily update for 8/17/05)

Attachments:

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]

Sent: Thursday, August 18, 2005 7:30 AM

To: James Romero

Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby

Subject: RE: Spill Report (daily update for 8/17/05)

OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (**Giant**) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (**Giant**) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]

Sent: Wed 8/17/2005 12:27 PM

To: Price, Wayne, EMNRD

Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby

Subject: RE: Spill Report (daily update for 8/17/05)

Wayne, Hope:

Per OCD's condition here is our daily update:

1) We just received the lab results (via telephone) on Storm water Outfall #1

Benzene	ND
EthylBen	ND
Toluene	.35ppb
Xylene	2.1ppb

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

2) Riley Industrial is onsite and unplugging the process sewer lines to the weir box.

3) The outlet to the upper storm water basin has been plugged to contain the spill

If you have any questions please feel free to call me anytime, James

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Tuesday, August 16, 2005 8:01 AM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

OCD hereby approves of the emergency actions with the following conditions:

1. All water sales from the ponds shall cease, unless approved by OCD.
2. No stormwater shall be released that exceeds the WQCC standards.
3. The emergency actions shall be continuous (24 hour) until API problem is correct.
4. A daily E-mail report shall be submitted until emergency is over.
5. Giant shall isolate the other ponds, if possible during the emergency condition.

Please be advised that NMOCD approval of this plan does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

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Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'

Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

Wayne,

As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a formal C-141 spill report. Moreover, I will submit pics, lab results, and a site map, etc.

However, as an interim measure, and with your approval, we are taking the following actions:

- (1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump
- (2) Interim emergency storage of material within two 55,000 barrel tanks located on western part of the property (map will follow hard copy).
- (3) A chopper pump will be installed and has been ordered (replacement of old API pump)

LAB RESULTS	Lagoon 2	Evap Pond 1
MTBE	88 ppb	60 ppb
Benzene	306 ppb	1000 ppb
Toluene	8.7 ppb	76 ppb
Ethylbenzene	<2.5 ppb	<10.0 ppb

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Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com] **Sent:** Tue 8/16/2005 3:21 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Cc: Ed Rios; Ed Riege; Steve Morris; David Kirby
Subject: RE: Spill Report
Attachments:

Wayne, I wanted to follow up via email regarding our phone conversation and the emergency conditions.

- 1) Giant is no longer selling water from our ponds
- 2) Spill releases (excluding API which goes into Lagoons) have been contained within the upper storm water basin. To ensure contaminants are being contained and not leaving the property, Giant took samples from the lower basin (Outfall #1) which exits the property and took numerous soil samples. In addition to sampling, Giant has plugged outfall #1 until lab results demonstrate no contaminants are present.
- 3) Giant will have 4 pumper trucks hauling wastes from the API, and Lagoons to our 55,000 barrel tanks during daylight hours. In addition, during nighttime hours Giant personnel will monitor and document their visual inspections of the API and Ponds.
- 4) Giant will keep OCD and NMENV appraised daily
- 5) Giant will evaluate if isolating the ponds is logistically practicable. However, due to the heavy rains and lowered capacity of our ponds, this may no be possible.

I'm in the process of submitting a C141 and Remediation plan, which will include photos, spill amounts, lab results, clean up efforts including pumper truck routes, amounts recovered, spill contingencies, site map, rainfall records, and contingencies etc. If you would like us to include any other information let me know.

-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Tuesday, August 16, 2005 8:01 AM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

Wayne Price-Senior Envi
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

OCD hereby approves of the emergency actions with the following conditions:

1. All water sales from the ponds shall cease, unless approved by OCD.
2. No stormwater shall be released that exceeds the WQCC standards.
3. The emergency actions shall be continuous (24 hour) until API problem is correct.
4. A daily E-mail report shall be submitted until emergency is over.
5. Giant shall isolate the other ponds, if possible during the emergency condition.

Monzeglio, Hope, NMENV

From: James Romero [jromero@giant.com]
To: Monzeglio, Hope, NMENV
Cc:
Subject: Follow up on my phone message
Attachments:

Sent: Thu 8/11/2005 9:24 AM

Good Morning Hope, I wanted to follow up on my phone message from yesterday regarding a spill event. On 8-3-05 the pump on the API broke a valve and oily water was discharged onto the ground. We estimated approximately 6 barrels of oil along with several gallons of water was released. The release was contained on the property within a catchment basin. I've already notified OCD verbally and in writing. If you have any questions please do not hesitate to call me

James Romero

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