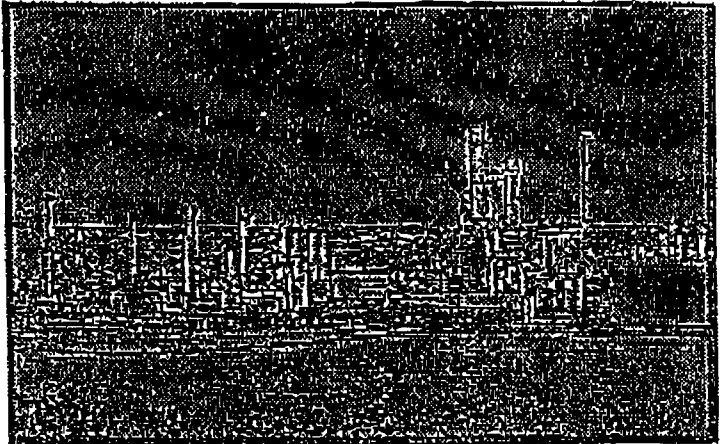


GREB - 01 Red File



Bloomfield Refinery  
#50 County Road 4990  
P.O. Box 159  
Bloomfield, NM 87413

Phone - (505) 632-8013  
Fax - (505) 632-3911

DATE: 2/8/01

TO: DAVE COBRAN

COMPANY: NMED

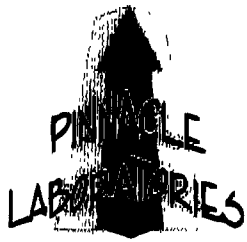
FAX NUMBER: 505-827-1544

FROM: BARRY HOLMAN

PAGE (Including cover page) 1 of 17

Comments:

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2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

CLIENT	: GIANT REFINING CO.-BLOOMFIELD	PINNACLE ID	: 012099
PROJECT #	: 4TH QTR WELL SAMPLE	DATE RECEIVED	: 12/29/00
PROJECT NAME	: 4TH QTR WELL SAMPLE	REPORT DATE	: 01/17/01
PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
012099 - 01	QTR INJ WELL	AQUEOUS	12/28/00



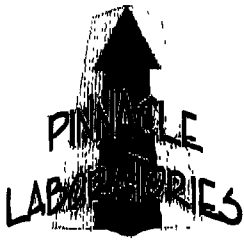
2709-D Pan American Freeway NE  
 Albuquerque, New Mexico 87107  
 Phone (505) 344-3777  
 Fax (505) 344-4413

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8200  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD PINNACLE I.D. : 012099  
 PROJECT # : 4TH QTR WELL SAMPLE DATE RECEIVED : 12/29/00  
 PROJECT NAME : 4TH QTR WELL SAMPLE

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
012099-01	QTR INJ WELL	AQUEOUS	12/29/00	N/A	01/02/01	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			

Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L	
Chloromethane (74-87-9)	1.0	< 1.0	ug/L	
Vinyl Chloride (75-01-4)	1.0	< 1.0	ug/L	
Bromomethane (74-83-9)	1.0	< 1.0	ug/L	
Chloroethane (75-00-3)	1.0	< 1.0	ug/L	
Trichlorofluoromethane (75-69-4)	1.0	< 1.0	ug/L	
Acetone (67-64-1)	10	120	ug/L	
Acrolein (107-02-8)	5.0	< 5.0	ug/L	
1,1-Dichloroethane (75-35-4)	1.0	< 1.0	ug/L	
Iodomethane (74-88-4)	1.0	< 1.0	ug/L	
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L	
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L	
cis-1,2-Dichloroethene (107-06-2)	1.0	< 1.0	ug/L	
Methyl-t-butyl Ether (628-28-4)	1.0	900	ug/L	(D20)
1,1,2-Trichlorotrifluoroethane (76-13-1)	5.0	< 5.0	ug/L	
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L	
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L	
2-Butanone (78-93-3)	10	< 10	ug/L	
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L	
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L	
Chloroform (67-66-3)	1.0	< 1.0	ug/L	
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L	
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L	
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L	
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L	
1,1-Dichloropropane (603-58-6)	1.0	< 1.0	ug/L	
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L	
Benzene (71-43-2)	1.0	< 1.0	ug/L	
1,2-Dichloropropane (78-87-5)	1.0	< 1.0	ug/L	
Trichloroethene (78-01-6)	1.0	< 1.0	ug/L	
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L	
2-Chloroethyl Vinyl Ether (110-75-8)	10	< 10	ug/L	
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L	
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L	
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L	
1,3-Dichloropropane (142-28-8)	1.0	< 1.0	ug/L	
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L	
Toluene (108-88-3)	1.0	< 1.0	ug/L	
1,2-Dibromoethane (106-93-4)	1.0	< 1.0	ug/L	
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L	
2-Hexenone (591-78-6)	10	< 10	ug/L	
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L	
Tetrachloroethene (127-18-4)	1.0	< 1.0	ug/L	
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L	
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L	
1,1,1,2-Tetrachloroethane (630-20-8)	1.0	< 1.0	ug/L	
m&p Xylenes (106-38-3, 106-42-3)	1.0	< 1.0	ug/L	



2709-D Pan American Freeway NE  
 Albuquerque, New Mexico 87107  
 Phone (505) 344-3777  
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GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE  
 PINNACLE I.D. : 012089  
 DATE RECEIVED : 12/29/00

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
012089-01	QTR INJ WELL	AQUEOUS	12/28/00	N/A	01/02/01	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS			
o-Xylene (95-47-8)	1.0	< 1.0	ug/L			
Styrene (100-42-5)	1.0	< 1.0	ug/L			
Bromoforn (76-25-2)	1.0	< 1.0	ug/L			
1,1,2,2-Tetrachloroethane (79-34-6)	1.0	< 1.0	ug/L			
1,2,3-Trichloropropane (96-18-4)	1.0	< 1.0	ug/L			
Isopropyl Benzene (98-82-8)	1.0	< 1.0	ug/L			
Bromobenzene (108-86-1)	1.0	< 1.0	ug/L			
trans-1,4-Dichloro-2-Butene (110-57-8)	1.0	< 1.0	ug/L			
n-Propylbenzene (103-65-1)	1.0	< 1.0	ug/L			
2-Chlorotoluene (95-49-8)	1.0	< 1.0	ug/L			
4-Chlorotoluene (106-43-4)	1.0	< 1.0	ug/L			
1,3,5-Trimethylbenzene (108-87-8)	1.0	< 1.0	ug/L			
tert-Butylbenzene (98-06-6)	1.0	< 1.0	ug/L			
1,2,4-Trimethylbenzene (95-63-6)	1.0	< 1.0	ug/L			
sec-Butylbenzene (135-98-9)	1.0	< 1.0	ug/L			
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L			
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L			
p-Isopropyltoluene (99-87-6)	1.0	< 1.0	ug/L			
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L			
n-Butylbenzene (104-51-8)	1.0	< 1.0	ug/L			
1,2-Dibromo-3-chloropropane (96-12-8)	1.0	< 1.0	ug/L			
1,2,4-Trichlorobenzene (120-82-1)	1.0	< 1.0	ug/L			
Naphthalene (91-20-3)	1.0	< 1.0	ug/L			
Hexachlorobutadiene (87-68-3)	1.0	< 1.0	ug/L			
1,2,3-Trichlorobenzene (87-61-8)	1.0	< 1.0	ug/L			
1,4-Dioxane (123-91-1)	50	< 50	ug/L			

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	108 ( 80 - 120 )
Toluene-d8	102 ( 86 - 110 )
Bromofluorobenzene	106 ( 86 - 115 )

D20 = Diluted 20X, Analyzed 1/3/00.



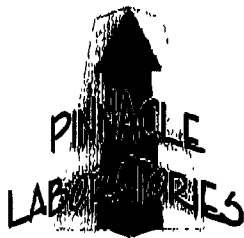
2709-D Pan American Freeway NE  
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 Phone (505) 344-3777  
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GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD PINNACLE I.D. : 012099  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	010201	AQUEOUS	N/A	01/02/01	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS		

Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L
Chloromethane (74-87-9)	1.0	< 1.0	ug/L
Vinyl Chloride (75-01-4)	1.0	< 1.0	ug/L
Bromomethane (74-83-9)	1.0	< 1.0	ug/L
Chloroethane (75-00-3)	1.0	< 1.0	ug/L
Trichlorofluoromethane (75-69-4)	1.0	< 1.0	ug/L
Acetone (67-64-1)	10	< 10	ug/L
Acrolein (107-02-8)	5.0	< 5.0	ug/L
1,1-Dichloroethane (75-35-4)	1.0	< 1.0	ug/L
Iodomethane (74-89-4)	1.0	< 1.0	ug/L
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L
cis-1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Methyl-t-butyl Ether (628-28-4)	1.0	< 1.0	ug/L
1,1,2-Trichlorotrifluoroethane (78-13-1)	5.0	< 5.0	ug/L
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L
trans-1,2-Dichloroethane (156-80-5)	1.0	< 1.0	ug/L
2-Butanone (78-93-3)	10	< 10	ug/L
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L
Bromochloromethane (74-97-6)	1.0	< 1.0	ug/L
Chloroform (67-66-3)	1.0	< 1.0	ug/L
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L
1,1-Dichloropropane (563-59-8)	1.0	< 1.0	ug/L
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L
Benzene (71-43-2)	1.0	< 1.0	ug/L
1,2-Dichloropropane (78-87-5)	1.0	< 1.0	ug/L
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether (110-75-8)	10	< 10	ug/L
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L
1,1,2-Trichloroethane (78-00-5)	1.0	< 1.0	ug/L
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L
Toluene (108-88-3)	1.0	< 1.0	ug/L
1,2-Dibromoethane (106-93-4)	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L
2-Hexanone (591-78-8)	10	< 10	ug/L
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L
Tetrachloroethene (127-18-4)	1.0	< 1.0	ug/L
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L



2709-D Pan American Freeway NE  
 Albuquerque, New Mexico 87107  
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GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
 CLIENT : GIANT REFINING CO.,BLOOMFIELD PINNACLE I.D. : 012099  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	010201	AQUEOUS	N/A	01/02/01	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
m&p Xylenes (108-38-3, 106-42-3)	1.0	< 1.0	ug/L
o-Xylene (95-47-6)	1.0	< 1.0	ug/L
Styrene (100-42-5)	1.0	< 1.0	ug/L
Bromoform (75-25-2)	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane (79-34-5)	1.0	< 1.0	ug/L
1,2,3-Trichloropropane (98-18-4)	1.0	< 1.0	ug/L
Isopropyl Benzene (98-82-8)	1.0	< 1.0	ug/L
Bromobenzene (108-86-1)	1.0	< 1.0	ug/L
trans-1,4-Dichloro-2-Butene (110-57-6)	1.0	< 1.0	ug/L
n-Propylbenzene (103-65-1)	1.0	< 1.0	ug/L
2-Chlorotoluene (95-49-8)	1.0	< 1.0	ug/L
4-Chlorotoluene (106-43-4)	1.0	< 1.0	ug/L
1,3,6-Trimethylbenzene (108-67-8)	1.0	< 1.0	ug/L
tert-Butylbenzene (98-06-6)	1.0	< 1.0	ug/L
1,2,4-Trimethylbenzene (95-83-6)	1.0	< 1.0	ug/L
sec-Butylbenzene (135-98-9)	1.0	< 1.0	ug/L
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L
p-Isopropyltoluene (99-87-6)	1.0	< 1.0	ug/L
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L
n-Butylbenzene (104-51-8)	1.0	< 1.0	ug/L
1,2-Dibromomono-3-chloropropane (98-12-8)	1.0	< 1.0	ug/L
1,2,4-Trichlorobenzene (120-82-1)	1.0	< 1.0	ug/L
Naphthalene (91-20-3)	1.0	< 1.0	ug/L
Hexachlorobutadiene (87-68-3)	1.0	< 1.0	ug/L
1,2,3-Trichlorobenzene (87-61-6)	1.0	< 1.0	ug/L
1,4-Dioxane (123-91-1)	50	< 50	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	104 ( 80 - 120 )
Toluene-d8	101 ( 88 - 110 )
Bromofluorobenzene	104 ( 86 - 115 )



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 Albuquerque, New Mexico 87107  
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GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD PINNACLE I.D. : 012099  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	010301	AQUEOUS	N/A	01/03/01	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS		

Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L
Chloromethane (74-87-9)	1.0	< 1.0	ug/L
Vinyl Chloride (75-01-4)	1.0	< 1.0	ug/L
Bromomethane (74-83-9)	1.0	< 1.0	ug/L
Chloroethane (75-00-3)	1.0	< 1.0	ug/L
Trichlorofluoromethane (76-89-4)	1.0	< 1.0	ug/L
Acetone (67-64-1)	10	< 10	ug/L
Acrolein (107-02-8)	5.0	< 5.0	ug/L
1,1-Dichloroethane (75-35-4)	1.0	< 1.0	ug/L
Iodomethane (74-88-4)	1.0	< 1.0	ug/L
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene (107-06-2)	1.0	< 1.0	ug/L
Methyl-t-butyl Ether (629-26-4)	1.0	< 1.0	ug/L
1,1,2-Trichlorotrifluoroethane (76-13-1)	5.0	< 5.0	ug/L
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L
2-Butanone (78-93-3)	10	< 10	ug/L
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L
Chloroform (67-66-3)	1.0	< 1.0	ug/L
2,2-Dichloropropane (694-20-7)	1.0	< 1.0	ug/L
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L
1,1-Dichloropropane (563-58-6)	1.0	< 1.0	ug/L
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L
Benzene (71-43-2)	1.0	< 1.0	ug/L
1,2-Dichloropropane (76-67-5)	1.0	< 1.0	ug/L
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether (110-75-8)	10	< 10	ug/L
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L
Toluene (108-88-3)	1.0	< 1.0	ug/L
1,2-Dibromoethane (106-93-4)	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L
2-Hexanone (591-78-8)	10	< 10	ug/L
Dibromochloromethane (124-46-1)	1.0	< 1.0	ug/L
Tetrachloroethane (127-18-4)	1.0	< 1.0	ug/L
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L



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GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD PINNACLE I.D. : 012099  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	010301	AQUEOUS	N/A	01/03/01	1
PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS		
m&p Xylenes (108-38-3, 106-42-3)	1.0	< 1.0	ug/L		
o-Xylene (95-47-6)	1.0	< 1.0	ug/L		
Styrene (100-42-5)	1.0	< 1.0	ug/L		
Bromoform (76-25-2)	1.0	< 1.0	ug/L		
1,1,2,2-Tetrachloroethane (79-34-5)	1.0	< 1.0	ug/L		
1,2,3-Trichloropropane (86-18-4)	1.0	< 1.0	ug/L		
Isopropyl Benzene (98-82-8)	1.0	< 1.0	ug/L		
Bromobenzene (108-86-1)	1.0	< 1.0	ug/L		
trans-1,4-Dichloro-2-Butene (110-57-6)	1.0	< 1.0	ug/L		
n-Propylbenzene (103-65-1)	1.0	< 1.0	ug/L		
2-Chlorotoluene (95-49-8)	1.0	< 1.0	ug/L		
4-Chlorotoluene (106-43-4)	1.0	< 1.0	ug/L		
1,3,5-Trimethylbenzene (108-67-8)	1.0	< 1.0	ug/L		
tert-Butylbenzene (98-06-5)	1.0	< 1.0	ug/L		
1,2,4-Trimethylbenzene (95-63-6)	1.0	< 1.0	ug/L		
sec-Butylbenzene (136-98-9)	1.0	< 1.0	ug/L		
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L		
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L		
p-Isopropyltoluene (99-87-6)	1.0	< 1.0	ug/L		
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L		
n-Butylbenzene (104-51-8)	1.0	< 1.0	ug/L		
1,2-Dibromo-3-chloropropane (96-12-8)	1.0	< 1.0	ug/L		
1,2,4-Trichlorobenzene (120-82-1)	1.0	< 1.0	ug/L		
Naphthalene (91-20-3)	1.0	< 1.0	ug/L		
Hexachlorobutadiene (87-88-3)	1.0	< 1.0	ug/L		
1,2,3-Trichlorobenzene (87-61-6)	1.0	< 1.0	ug/L		
1,4-Dioxane (123-91-1)	50	< 50	ug/L		

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	97 ( 80 - 120 )
Toluene-d8	100 ( 88 - 110 )
Bromofluorobenzene	103 ( 86 - 115 )





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**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS**

TEST : VOLATILE ORGANICS EPA METHOD 8280  
 SPIKED SAMPLE : 012081-04  
 CLIENT : GIANT REFINING CO.-BLOOMFIELD  
 PROJECT # : 4TH QTR WELL SAMPLE  
 PROJECT NAME : 4TH QTR WELL SAMPLE

PINNACLE I.D. : 012099  
 DATE ANALYZED : 01/02/01  
 UNITS : ug/L (PPB)

COMPOUND	SAMPLE CONC.	SPIKE ADDED	MS RESULT	MSD RESULT	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS %RECOVERY
1,1-DICHLOROETHENE	<1.0	50.0	48.2	48.7	96	97	1	14	61-145
BENZENE	<1.0	50.0	52.7	52.5	105	105	0	11	76-127
TRICHLOROETHENE	<1.0	50.0	53.5	54.0	107	108	1	14	71-120
TOLUENE	<1.0	50.0	52.0	51.5	104	103	1	13	76-125
CHLOROBENZENE	<1.0	50.0	50.4	50.0	101	100	1	13	75-130



STL Pensacola

### CASE NARRATIVE

Date: January 10, 2001  
 STL Order Number: C012705  
 Project Name: QTR. WELL SAMPLE  
 Project Location: N/S  
 Methods: 8270

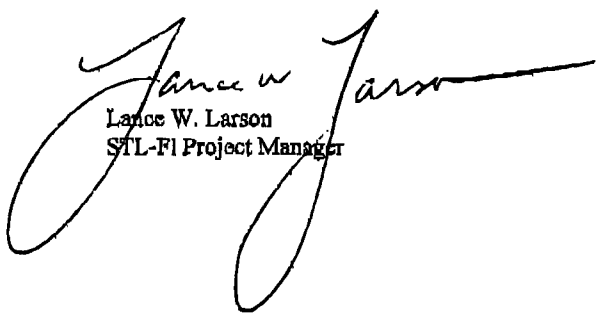
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STL Sample ID  
 012705-01

Client Sample ID  
 012099-01

Target compounds not listed in the 8270 results were searched for by the NBS Library Search Program and the following five requested compounds were not found;

- Quinoline
- Benzenethiole
- Indene
- 4-Methyl Phenol
- Methyl Chrysene



Lance W. Larson  
 STL-FI Project Manager



STL Pensacola

LOG NO: C0-12705  
 Received: 30 DEC 00  
 Reported: 10 JAN 01

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 Albuquerque, NM 87107

Project: 012099, GRCB-4th QTR WELL  
 Sampled By: Client  
 Code: 163610110

REPORT OF RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER	12705-1	
Ignitability-flash point (1010), Degrees C	>100	
Dilution Factor	1	
Prep Date	01.10.01	
Analysis Date	01.10.01	
Batch ID	FPX001	
Prep Method	SW1010	
Analyst	WG	
Chloride (SM4500E), mg/l	1800	
Dilution Factor	20	
Prep Date	01.03.01	
Analysis Date	01.03.01	
Batch ID	CKW01A	
Prep Method	4500E	
Analyst	CR	
Sulfate as SO4 (375.4), mg/l	1100	
Dilution Factor	50	
Prep Date	01.09.01	
Analysis Date	01.09.01	
Batch ID	SEW003	
Prep Method	375.4	
Analyst	BE	



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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER	12705-1	
Total Dissolved Solids (160.1), mg/l	5200	
Dilution Factor	1	
Prep Date	01.02.01	
Analysis Date	01.04.01	
Batch ID	TDW001	
Prep Method	160.1	
Analyst	ST	
pH (150.1), units	7.3R4	
Dilution Factor	1	
Prep Date	12.30.00	
Analysis Date	12.30.00	
Batch ID	PHW269	
Prep Method	150.1	
Analyst	WG	
Specific Conductance (120.1), umhos/cm	7700	
Dilution Factor	1	
Prep Date	01.03.01	
Analysis Date	01.03.01	
Batch ID	CDW001	
Prep Method	120.1	
Analyst	ST	



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REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER	12705-1	
Alkalinity Series (2320B/SM4500)		
Alkalinity (to pH 4.5) as CaCO <sub>3</sub> , mg/l		310
Bicarbonate (2320/4500), mg/l		310
Carbon Dioxide, mg/l		78
pH, mg/l		6.9
Hydroxide, mg/l		<1.0
Carbonate (2320/4500), mg/l		<1.0
Dilution Factor		1
Prep Date		01.09.01
Analysis Date		01.09.01
Batch ID		AEW003
Prep Method		4500
Analyst		BE
Total Releasable Cyanide (SW7.3.3.2), mg HCN/kg		
		<25
Dilution Factor		1
Prep Date		01.09.01
Analysis Date		01.09.01
Batch ID		RSX001
Prep Method		7332
Analyst		BH
Total Releasable Sulfide (SW7.3.4.2), mg H <sub>2</sub> S/kg		
		<150
Dilution Factor		1
Prep Date		01.09.01
Analysis Date		01.09.01
Batch ID		RSX001
Prep Method		7342
Analyst		BH



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REPORT OF RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11;15
PARAMETER	12705-1	
RCRA Metals		
Arsenic, mg/l		0.028
Barium, mg/l		0.137
Calcium, mg/l		80
Cadmium, mg/l		<0.005
Chromium, mg/l		0.006
Lead, mg/l		<0.005
Magnesium, mg/l		21
Potassium, mg/l		35
Selenium, mg/l		0.018
Silver, mg/l		<0.005
Sodium, mg/l		1700
Dilution Factor		1,100
Prep Date		01.03.01
Analysis Date		01.05.01
Batch ID		PW455
Prep Method		3010A
Analyst		CH
Mercury (7470), mg/l		0.0010
Dilution Factor		1
Prep Date		01.04.01
Analysis Date		01.04.01
Batch ID		HGW167
Prep Method		7470A
Analyst		JDE



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REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER		12705-1
Semivolatile Organic Compounds (8270)		
Benzoic acid, ug/l		<50
4-Chloro-3-methylphenol (p-Chloro-m-cresol), ug/l		<10
2-Chlorophenol, ug/l		<10
2,4-Dichlorophenol, ug/l		<10
2,6-Dichlorophenol, ug/l		<10
2,4-Dimethylphenol, ug/l		<10
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol), ug/l		<50
2,4-Dinitrophenol, ug/l		<50
2-Methylphenol (o-Cresol), ug/l		<10
3-Methylphenol/4-Methylphenol (m&p-Cresol), ug/l		<10
2-Nitrophenol (o-Nitrophenol), ug/l		<10
4-Nitrophenol (p-Nitrophenol), ug/l		<50
Pentachlorophenol, ug/l		<50
Phenol, ug/l		<10
2,3,4,6-Tetrachlorophenol, ug/l		<10
2,4,5-Trichlorophenol, ug/l		<50
2,4,6-Trichlorophenol, ug/l		<10
Acenaphthene, ug/l		<10
Acenaphthylene, ug/l		<10
Acetophenone, ug/l		<10
4-Aminobiphenyl, ug/l		<10
Aniline, ug/l		<10
Anthracene, ug/l		<10
Benzidine, ug/l		<50
Benzo(a)anthracene, ug/l		<10



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REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER		12705-1
Benzo(b)fluoranthene, ug/l		<10
Benzo(k)fluoranthene, ug/l		<10
Benzo(g,h,i)perylene, ug/l		<10
Benzo(a)pyrene, ug/l		<10
Benzyl alcohol, ug/l		<10
4-Bromophenylphenyl ether, ug/l		<10
Butylbenzylphthalate, ug/l		<10
Carbazole, ug/l		<10
4-Chloroaniline (p-Chloroaniline), ug/l		<10
bis(2-Chloroethoxy)methane, ug/l		<10
bis(2-Chloroethyl)ether, ug/l		<10
bis(2-Chloroisopropyl) ether, ug/l		<10
1-Chloronaphthalene, ug/l		<10
2-Chloronaphthalene, ug/l		<10
4-Chlorophenylphenyl ether, ug/l		<10
Chrysene, ug/l		<10
Dibenz(a,j)acridine, ug/l		<10
Dibenzo(a,h)anthracene, ug/l		<10
Dibenzofuran, ug/l		<10
Di-n-butylphthalate, ug/l		<10
1,2-Dichlorobenzene (o-Dichlorobenzene), ug/l		<10
1,3-Dichlorobenzene (m-Dichlorobenzene), ug/l		<10
1,4-Dichlorobenzene (p-Dichlorobenzene), ug/l		<10
3,3'-Dichlorobenzidine, ug/l		<50
Diethylene Glycol Monobutyl Ether, ug/l		<10
Diethylphthalate, ug/l		<10





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REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER	12705-1	
p-(Dimethylamino)azobenzene, ug/l	<10	
7,12-Dimethylbenz(a)anthracene, ug/l	<10	
alpha,alpha-Dimethylphenethylamine, ug/l	<10	
Dimethylphthalate, ug/l	<10	
2,4-Dinitrotoluene, ug/l	<10	
2,6-Dinitrotoluene, ug/l	<10	
Di-n-octylphthalate, ug/l	<10	
1,2-Diphenylhydrazine, ug/l	<10	
bis(2-Ethylhexyl)phthalate, ug/l	<10	
Ethyl methanesulfonate, ug/l	<10	
Fluoranthene, ug/l	<10	
Fluorene, ug/l	<10	
Hexachlorobenzene, ug/l	<10	
Hexachlorobutadiene, ug/l	<10	
Hexachlorocyclopentadiene, ug/l	<10	
Hexachloroethane, ug/l	<10	
Indeno(1,2,3-cd)pyrene, ug/l	<10	
Isophorone, ug/l	<10	
3-Methylcholanthrene, ug/l	<10	
Methyl methanesulfonate, ug/l	<10	
1-Methylnaphthalene, ug/l	<10	
2-Methylnaphthalene, ug/l	<10	
Naphthalene, ug/l	<10	
1-Naphthylamine, ug/l	<10	
2-Naphthylamine, ug/l	<10	
2-Nitroaniline (o-Nitroaniline), ug/l	<10	



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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
12705-1	012099-01	12-28-00/11:15
PARAMETER		12705-1
3-Nitroaniline (m-Nitroaniline), ug/l		<10
4-Nitroaniline (p-Nitroaniline), ug/l		<10
Nitrobenzene, ug/l		<10
N-Nitrosodi-n-butylamine, ug/l		<10
N-Nitrosodimethylamine, ug/l		<10
N-Nitrosodiphenylamine, ug/l		<10
n-Nitrosodi-n-propylamine, ug/l		<10
N-Nitrosopiperidine, ug/l		<10
Pentachlorobenzene, ug/l		<10
Pentachloronitrobenzene, ug/l		<10
Phenacetin, ug/l		<10
Phenanthrene, ug/l		<10
2-Picoline, ug/l		<10
Pronamide, ug/l		<10
Pyrene, ug/l		<10
Pyridine, ug/l		<10
1,2,4,5-Tetrachlorobenzene, ug/l		<10
1,2,4-Trichlorobenzene, ug/l		<10
Surrogate - 2-Fluorobiphenyl		64 %
Surrogate - 2-Fluorophenol		39 %
Surrogate - Nitrobenzene - d5		60 %
Surrogate - Phenol-d5		59 %
Surrogate - Terphenyl-d14		76 %
Surrogate - 2,4,6-Tribromophenol		82 %
Dilution Factor		1
Prep Date		01.02.01
Analysis Date		01.05.01
Batch ID		ALW126
Prep Method		3520C
Analyst		RW