3R-

REPORTS

DATE: 2000-198



October 3, 2000

SERVATION DIVISIO

Certified Mail: #7099 3400 0018 9756 8857

Mr. William C. Olson New Mexico Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87504

RE: Notification of Abandonment of Groundwater Remediation / Monitoring Wells and the Passive Soil Vapor Extraction System at the Blanco Field Office

Dear Mr. Olson:

El Paso Field Services Company (EPFS) hereby submits notification of the abandonment of all groundwater remediation / monitoring wells and the passive soil vapor extraction system at the Blanco Field Office, located in Blanco, New Mexico. The abandonment's were performed in response to the June 30, 2000 "GROUNDWATER CLOSURE REPORT BLANCO FIELD OFFICE" letter from the New Mexico Oil Conservation Division approving closure of the site.

Attached is a letter report from Philip Environmental Services Corporation, which details the above-mentioned abandonment's. All remediation and monitoring well abandonment's were performed in accordance with EPFS's approved "MONITOR WELL ABANDONMENT PLAN" dated March 26, 1998.

If you have any questions or require any additional information, please contact me at (505) 599-2124.

Sincerely,

Scott T. Pope P.G.

Senior Environmental Scientist

Enclosures: as stated

xc: Mr. Denny Foust, NMOCD - Aztec - Certified Mail # 7099 3400 0018 9756 8437



September 13, 2000

Mr. Scott Pope El Paso Field Services Company 614 Reilly Avenue Farmington, NM 87499

RE: Blanco Field Office Groundwater Site Closure Report

Dear Mr. Pope:

Philip Environmental Services Corp. (Philip) is pleased to submit this letter report to El Paso Field Services Company (EPFS) documenting closure activities at El Paso's Blanco Field Office.

On August 31, 2000 Philip mobilized a drill rig, backhoe, dump truck, and personnel to the Blanco Field Office location for site closure operations. The following facilities associated with past groundwater remediation/monitoring were abandoned.

- 3 2-inch groundwater monitoring wells
- 3 4-inch groundwater monitoring wells
- 3 groundwater sparge wells
- 1 vadose zone monitoring point
- 1 temporary piezometer
- passive venting system (160-feet of 4" diameter piping with 4-inch stand pipes every 20 feet)

Mr. Denny Foust of the New Mexico Oil Conservation Division (NMOCD) visited the site during field activities.

The monitoring wells, sparge wells, vadose zone monitoring point and temporary piezometer were abandoned according to El Paso's monitoring well abandonment plan as approved by the NMOCD. Philip removed the surface completions from each well as necessary. An attempt was made to pull the entire well casing from the ground. If the well did not come out during pulling, the casing broke beneath the ground. Each well location was grouted from the bottom of the open well hole to 5 inches above

Combining the Strengths of Philip Services Corp., Allwaste and Serv-Tech

Mr. Scott Pope September 13, 2000 Page 2

ground surface with cement slurry that contained approximately 12 per cent bentonite. Monitoring well abandonment forms are attached.

The passive venting system was excavated and removed, and the trench backfilled with on-site materials, graded, and compacted with the weight of the backhoe. Material that was not salvageable was disposed of at the San Juan County Landfill.

Philip appreciates this opportunity to provide these services to El Paso. If you have any questions or require additional information, please give me a call.

Sincerely,

Philip Environmental Services Corporation

Martin Nee closure letter report.DOC



PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401 (505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Driller

Date/Time Started

Date/Time Completed

1-00

Well#

Well Location Site Location

Ground Surface Top of Grout

Top of Riser

211

WELL DIAGRAM

Sloping Surface Ground Surface

Annular Space (Grout)

Weil Casing

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen .

Filter Pack -

· Bottom of Grout

Bottom of Well

Comments: All CASING WAS Pulled out

Drillers Signature

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401 (505) 326-2262 FAX (505) 326-2388

Lanco PiPEline Project Name Well# Project Number/Phase Well Location Driller Site Location Date/Time Started Date/Time Completed 8-31-00 WELL DIAGRAM Sloping Surface Ground Surface Ground Surface Top of Grout Top of Riser Annular Space (Grout) Well Casing Cement/Bentonite Grout (5%Bentonite) Bentonite Seal Well Screen Filter Pack Bottom of Grout Bottom of Well

Comments: All but 10 FT of CASing wouldn't come out.

17 Broke off approx 3' under ground Change Halle

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Driller

Date/Time Started

Date/Time Completed

Blanco P. PElina 111 33 12000 PHASE RODEGERS

Well #
Well Location
Site Location

MW-3 Black MINER Black NUR

WELL DIAGRAM

Sloping Surface Ground Surface

Annular Space (Grout)

Well Casing _

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen

Filter Pack

Ground Surface

Top of Grout

Top of Riser

-0-

MA

· Bottom of Grout

Bottom of Well

15.6

comments: All cosing was pulled out

Drillers Signature

Dany Hadell

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Oriller

Date/Time Started Date/Time Completed

Well #

Well Location Site Location

WELL DIAGRAM

Sloping Surface Ground Surface

Annular Space (Grout)

Well Casing

Bentonite Seal

(5%Bentonite)

Cement/Bentonite Grout

Well Screen

Filter Pack

Ground Surface

Top of Grout

Top of Riser

Bottom of Grout

Bottom of Well

All CASING Comments:

Drillers Signature

PHILIP SERVICES CORP.

Filter Pack

4000 Monroe Rd. Farmington, NM 87401 (505) 326-2262 FAX (505) 326-2388

Well # Project Name Well Location Project Number/Phase Site Location Date/Time Started Date/Time Completed WELL DIAGRAM Sloping Surface Ground Surface Ground Surface Top of Grout Top of Riser Annular Space (Grout) Well Casing Cement/Bentonite Grout (5%Bentonite) Bentonite Seal Weil Screen .

Comments: All CASING WAS DULLED OW +

Drillers Signature Chiny Rodelle

Bottom of Grout

Bottom of Well

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401 (505) 326-2262 FAX (505) 326-2388

Well# Project Name Project Number/Phase Well Location Site Location Driller Date/Time Started Date/Time Completed WELL DIAGRAM Sloping Surface Ground Surface Ground Surface Top of Grout Top of Riser Annular Space (Grout) Well Casing Cement/Bentonite Grout (5%Bentonite) Bentonite Seal Well Screen . Bottom of Grout Filter Pack

Comments: Approx 6 FT 0 F casing wouldn't come out

Remainled was Approx & under ground

Drillers Signature Excepted

Bottom of Well

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name Project Number/Phase Driller

Date/Time Started
Date/Time Completed

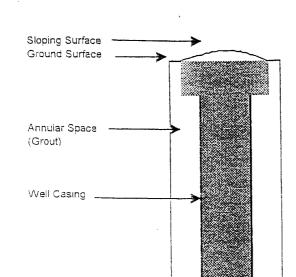
Blanco Pipeline
18917
PHILIP SERVICES
6-31-00

Well #

Site Location

1-W-1 1.5 Blanco N.MEX Blance N.MEX

WELL DIAGRAM



Ground Surface Top of Grout

Top of Riser

<u>-0-</u> 5"

1/17

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen

Filter Pack

Bottom of Grout

Bottom of Well

10:01

10:0"

Comments: All CASING WAS PullEd

Drillers Signature

Deny Podelle

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Driller

Date/Time Started

Date/Time Completed

ENVIRORENTA!

Well#

Well Location Site Location

WELL DIAGRAM

Sloping Surface Ground Surface

Annular Space (Grout)

Well Casing

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen

Filter Pack

Ground Surface

Top of Grout

Top of Riser

· Bottom of Grout

Bottom of Well

DUILED all CASING Comments:

Drillers Signature

Carry adelle

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name
Project Number/Phase
Driller

Date/Time Started
Date/Time Completed

Well Screen

Filter Pack

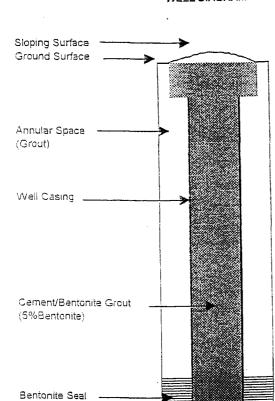
Plance PiPeline 18917 PHdis Enwanentus 8-31-00

Well #

Site Location

1-W-3 Blanco N.MEX Blanco N.MEX

WELL DIAGRAM



Ground Surface

Top of Grout

Top of Riser

<u>-0-</u>

11/17

Bottom of Grout

11.0"

Bottom of Well

11:04

Comments: Stell Casing Was PullEd

Drillers Signature

Ranytadille

PHILIP SERVICES CORP.

4000 Monroe Rd.

Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Driller

Date/Time Started

Date/Time Completed

Well# Well Location

Site Location

WELL DIAGRAM

Sloping Surface -Ground Surface

Annular Space (Grout)

Well Casing

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen _

Filter Pack

Ground Surface

Top of Grout

Top of Riser

Bottom of Grout

Bottom of Well

Comments: All CASING WAS

Drillers Signature

PHILIP SERVICES CORP.

4000 Monroe Rd. Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name

Project Number/Phase

Driller

Date/Time Started

Date/Time Completed

Blanco Pifelini

ENURNEZ Tal

Well#

Ground Surface

Top of Grout

Top of Riser

Well Location Site Location

WELL DIAGRAM

Sloping Surface Ground Surface

Annular Space (Grout)

Well Casing

Cement/Bentonite Grout (5%Bentonite)

Bentonite Seal

Well Screen _

Filter Pack

Bottom of Grout

Bottom of Well

Comments:

911 CASINS

Drillers Signature



September 16, 1996

Mr. Bill Olson New Mexico Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87505



Dear Mr. Olson:

As you are aware, El Paso Field Services Co. (EPFS) has for the past three years been operating a groundwater monitoring and passive remediation program at the Blanco, New Mexico Pipeline Office. While the bulk of the contaminants have been reduced to within acceptable levels since 1994, the past few quarters' analysis results have not shown any improvement in the level of benzene in monitoring well number 4.

EPFS is now proposing to use an elevated oxygen and nutrient treatment to augment the biological remediation of the remaining contamination. The treatment program will consist of:

- 1. Sample the ground water at the Blanco Field Office to determine the concentration of naturally occurring nutrients.
- 2. Prepare a 500 gallon batch of treatment water for each well. The water will contain nitrogen rich liquid fertilizer mixed in a ration of 7 parts water to 1 part of urea nitrate. Sufficient hydrogen peroxide will be added to the nutrient solution to bring the dissolved oxygen content up to 20 milligrams per liter (mg/L).
- 3. Inject the batch treatment water into each monitoring well.
- 4. Insert magnesium peroxide "socks" into each well to maintain an adequate dissolved oxygen concentration.
- 5. Leave the magnesium peroxide in the well for 10 weeks. At the end of 10 each week treatment period, remove the oxygen source and allow the well to stabilize for 2 weeks prior to sampling.
- 6. Sample each monitoring well and replace the magnesium peroxide into the well bore.

Mr. Bill Olson September 16, 1996 Page 2

Since the only well currently exceeding any maximum contamination level is well number 4, and it exceeds the limit for only one constituent, benzene, EPFS is requesting approval to first, proceed with the enhanced remediation program as proposed above, and second, plug and abandon all monitoring wells at the Blanco Field Office after two consecutive calendar quarters of acceptable test results in well number 4. EPFS believes that two quarters of good results from this one well, coupled with the past eight quarters results on all other wells, should adequately demonstrate that the remediation program has been successfully completed.

For any additional information you made need regarding this proposed corrective action, please call me at (505) 599-2256.

Sincerely yours,

David Bays, REM

Sr. Environmental Scientist

Danid Bayr

cc: Mr. Denny Foust, NMOCD, Aztec

R. D. Cosby/S. D. Miller/J. S. Sterrett/Blanco P/L Regulatory File

El Paso Natural Gas Company

OIL CONSERVATION DIVISION RELE VED

10 6 MH HE FULL FG.

P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499

January 13, 1994

Mr. Bill Olson New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87504

Subject: El Paso Natural Gas Company's Blanco Field Office

To prevent offsite migration of contaminated groundwater, El Paso Natural Gas Company (EPNG) installed a passive air stripper system. The system consisted of approximately 160 feet of slotted PVC pipe installed in a gravel bed just above the water table. The system will be driven by a series of nine wind turbines. A schematic of the air stripper system is under Tab 1.

A letter sent to NMOCD dated October 1, 1993 summarized the results of soil and groundwater samples from a number of testholes. Fr.m the investigation discussed in the October 1993 letter, the location of the passive air stripper system and monitor wells was selected.

In addition to the passive air stripper system, EPNG installed two monitor wells downgradient of the trench system to monitor the remediation system and further define the extent of contamination, if any. One well was located on the south property line due south of Testhole #5 and one monitor well was located on the south property line southwest of Testhole #3. A drawing with the locations of the air stripper trench and monitor wells, and numbered testholes is under Tab 2.

A lithologic log, well construction log, and well development records for the two new monitor wells are under Tab 3. The wells were constructed with at least ten feet of well screen below the water table and two feet of well screen above the water table.

Page 2 - Blanco Field Office

Groundwater from the old and new monitor wells were sampled and analyzed for BETX and polynuclearlaromatic hydrocarbons (PNA) using EPA approved methods. A summary of the analytical results is under Tab 4. Hydrocarbon concentrations in all wells were below WQCC standards except the benzene concentration in MW-3 and MW-4. A copy of the PNA results from the new monitor wells is also included under Tab 4.

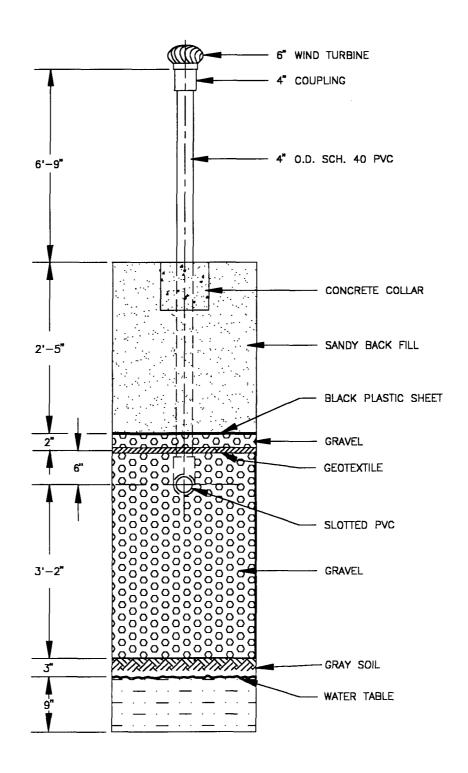
Recently, MW-2 and MW-3 were destroyed due to a pipeline expansion project construction activities. This year, EPNG will repair or replace the two damaged wells. EPNG proposes to continue monitoring MW-1, MW-4, MW-5, and MW-6 for BETX on a quarterly basis. Once MW-2 and MW-3 are repaired, they will be monitored with the other wells. After one year of monitoring, the project will be reviewed to determine if a revised monitoring schedule (i.e. accelerated or decelerated) is needed and if any further action is required at the site.

If you need additional information or have any questions please call me at 599-2176.

<u>Anu Pundari</u> Anu Pundari

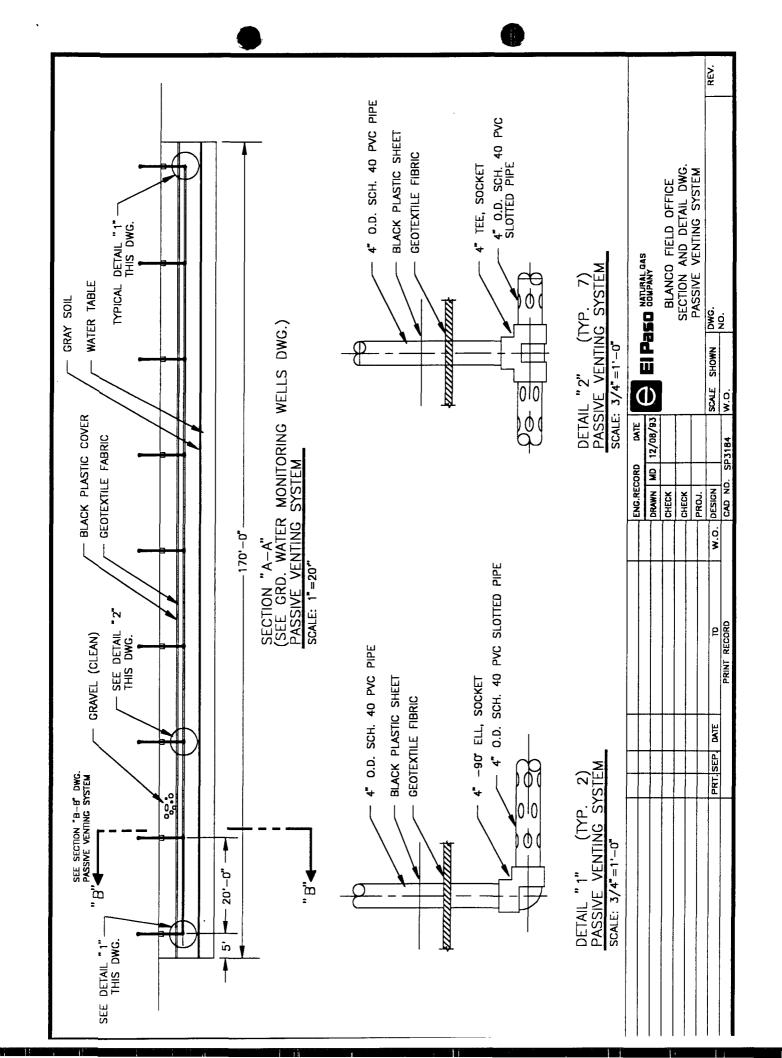
Sr. Compliance Engineer

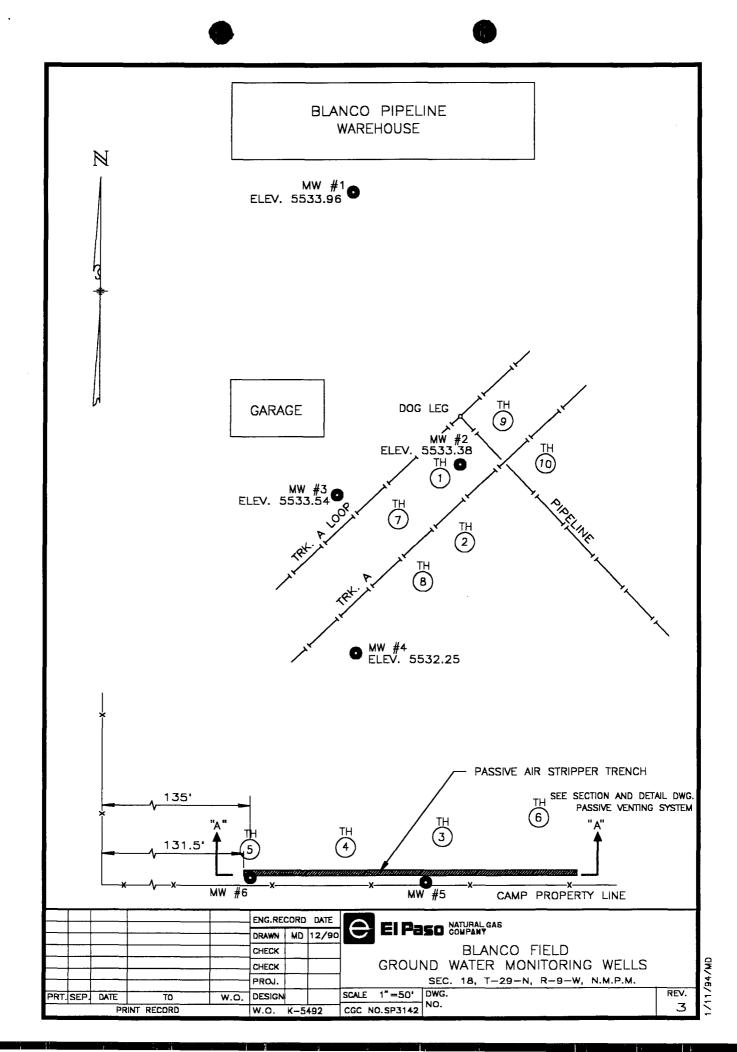
cc: Mr. David Hall (EPNG)



NOTE: THIS IS A TYPICAL SECTION NEAR THE AREA OF MW-5. THE DEPTH OF SANDY BACKFILL VARIED FROM 2 1/2 FEET TO 3 FEET ALONG THE TRENCH LENGTH.

					ENG.RECORD DATE				ELD-	NATURAL GAS	
					DRAWN	MD	12/08/93	EI Paso NATURAL GAS			
					CHECK			BLANCO FIELD OFFICE			
					CHECK			SECTION "B-B"			
					PROJ.			PASSIVE VENTING SYSTEM			
PRT.	SEP.	DATE	ТО	W.O.	DESIGN			SCALE	NONE	DWG.	REV.
PRINT RECORD CAD NO. SP3183			P3183	w.o.		NO.					





RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc.

4000 Monroe Road

Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Borehole #	MW - 5	
Well #	MW - 5	
Page 1	of 1	

 Project Name
 Blanco Pípeline

 Project Number
 11133
 Phase 2000

 Project Location
 Blanco, NM

Personnel On-Site Cory Chance
Contractors On-Site Rodgers Inc.
Client Personnel On-Site Gerry Garibay

Drilling Method HSA 6 1/4* ID, CME 75
Air Monitoring Method HNU, CGI

Depth Number Interval Receivery Classification System: USCS Utbology Symbol Classification System: USCS Symbol Symbol Classification System: USCS Symbol Symbol Receivery Symbol Receivery
Characteristics Content Conten
Swaper State Swaper Sw
Brown Gravelly SAND, fine-medium Sand, medium-coarse Gravel, subround-rounded Sand and Gravel, trace Clay, loose, moist. Sand and Gravel, trace Clay, loose, moist. SW SW SW SW SW SW SW S

Comments:	Will set well at 18'.			
		Geologist Signature	Ann This	

MONITORING WELL INSTALLATION RECORD

Burlington Environmental Inc. 4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Elevation		
Well Location	MW-5	
GWL Depth 6.5		
Installed By RODGER	S, INC.	
· · · · · · · · · · · · · · · · · · ·		
Date/Time Started	11/15/93	1400
Date/Time Completed		1500

	Borehole # Well # Page 1	MW-5 MW-5 of 1	
Project NameBL	ANCO PIPE	LINE	1
Project Number 111	.33	Phase	2000
Project Location BI	ANCO, NM		
On-Site Geologist Personnel On-Site Contractors On-Site Client Personnel On-S	S. POPE CORY CHA RODGERS. GER	INC.	BAY

Depths in Reference	to Ground Surface	9		\exists	Top of Protective Casing Top of Riser	+2.3
ltem	Material	Depth (feet)			Ground Surface	0.0
Top of Protective Casing	8" STEEL	+2.3				
Bottom of Protective Casing Top of Permanent Borehole		-1.7				
Casing Bottom of Permanent Borehole		N/A				
Casing		N/A				
Top of Concrete	PRE-MIX	+.3				
Bottom of Concrete		0.0				
Top of Grout		N/A				
Bottom of Grout		N/A				
Top of Well Riser	4" SCH 40 PVC	+2.1				
Bottom of Well Riser		-2.9				
Top of Well Screen	4" SCH 40 PVC	-2.9			Top of Seal	0.0
Bottom of Well Screen	.010 SLOT	-18.0	x0x0 x0x0	XX		
Top of Peltonite Seal	1/8 BENTONITE CHIPS	0.0	x0x0 x0x0	XXX		
Bottom of Peltonite Seal		-2.0	x 0x0	×	Top of Gravel Pack	-2.0
Top of Gravel Pack	10-20 SILICA	-2.0			Top of Screen	-2.9
Bottom of Gravel Pack		-18.0			\	
Top of Natural Cave-In		N/A		1		
Bottom of Natural Cave-In		N/A		1		
Top of Groundwater		-6.5		1	Bottom of Screen	-18.0
Total Depth of Borehole		-18.0			Bottom of Borehole	-18.0

Comments: NOTED APPROXIMATELY 4" OF HEAVE SAND AND GRAVEL IN HOLE. SEAL HYDRATED WITH 5 GALLONS WATER

11 (50 LB.) BAGS OF SAND, 2 (50 LB.) BAGS OF BENTONITE

Geologist Signature

	-				
ومحسيده		. /	1:1	2	

WELL DEVELOPMENT & PURGING



GENERAL DATA

	•			SE	RIAL NO. WD	
	•			PAG	GE OF_	
						
ROJECT	NAME <u>Blanco 1</u> NO	ipe line			WELL NO.	mw-5
PROJECT	NO. ///33		MAJOR TASK	2000	SUB TASI	00
DATE _//	1/8193 FORM C	OMPLETED BY.	S. Pope			
	_		. CONSTRUCTIO			,
TOTAL DE	PTH (FT) <u>20, 2</u> PACK INTERVAL (FT)	·	BOREHO	LE DIAME	TER (IN)	<u> </u>
	TECTOR: LES .					
QUANTITY	OF FLUID INJECTED I	URING DRILLIN	G (GALLONS)	NI	A	
	·					
	,		DLUME CALCUL	ATION		
	MEASUREMENT _///	- 	1	TEM		VOLUME
	ig point <u>TOR</u>				FT ³	GAL
	EVEL INSTRUMENT USE					7.6
· · · · · · · · · · · · · · · · · · ·	ATER LEVEL (FT)			L PACK		7
	EET OF WATER			NG FLUIDS		
LINEAR F	EET SATURATED GRAVE	EL PACK//	7. TOTAL	· · · · · · · · · · · · · · · · · · ·	<u> </u>	7,60
WATER QU	OF DEVELOPMENT JALITY MEASUREMENTS LUME (ANNULUS) (GAL) DLUME TO BE REMOVED	YES Zt	NO WELL CASI	NG YOLUM	E (PIPE) (GAL) _	7.6 76.0
	EVELOPMENT IS TO BE	PERFORMED IN	ACCORDANCE W	ITH PROJE	CT-SPECIFIC W	ELL
		WATER QUA	ALITY INSTRUM	IENTS		
DATE	INSTRUMENT	SERIAL NO.	CALIBRATION PERFORMED (/)	TECH	COMN	ENTS
11/18/43	Ph. Con Tout			Chance		
	/ /					
			-			
		1				
		1				
		•				
COMMEN	rs		·			

RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc. 4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Boreho	ole #		MW .	- 6	
Well #			MW -	- 6	
Page	1	of	1		

 Project Name
 Blanco Pipeline

 Project Number
 11133
 Phase 2000

 Project Location
 Blanco, NM

Personnel On-Site Cory Chance
Contractors On-Site Rodgers Inc.
Client Personnel On-Site Gerry Garibay

Drilling Method HSA 6 1/4* ID, CME 75
Air Monitoring Method HNU, CGI

Brown Gravelly SAND, medium Sand, medium-coarse Gravel with some large (2') Cobbles, subrounded-round Gravel and Sand, loose, moist. 9	Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change	U	Monitor	טע	Drilling Conditions & Blow Counts
35	(Feet) 0	Number	4 6	Type & Recovery (Inches)	Brown Gravelly SAND, medium Sand, medium-coarse Gravel with some large (2*) Cobbles, subrounded-round Gravel and Sand, loose, moist. Gray-Dark Gray Sandy GRAVEL, fine-medium Sand, Gravel medium-coarse, Gravel rounded-subrounded, Sand subangular-subrounded, loose, saturated. SAA based on Cuttings. Bluish Gray Gravelly CLAY, medium-coarse Gravel, medium plasticity, soft, saturated.	SW	Lithology Change (feet)	BZ O	BH O	S O	- Very tough drilling through cobbles. - Water @ 6.1' BGS. - 1630 11/15/93 will stop for the day. - 0900 11/16/93 WL 6.1 BGS resumes drilling. - No additional samples taken below GW. - Will set well @ 18'. - Extremely slow drilling from 15' - 18'. - Noted abundant gray clay on bottom 4' of augers.

Comments:					
				4	
		Geologist Signature	I de la companya della companya della companya de la companya della companya dell	1	

MONITORING WELL INSTALLATION RECORD

Burlington Environmental Inc. 4000 Monroe Road

Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Elevation		
Well Location	MW-6	
GWL Depth 6.1		
Installed By RODGEF	RS, INC.	
Date/Time Started	11/16/93	0900
Date/Time Completed	11/16/93	0940

Borehole # MW-6
Well # MW-6
Page 1 of 1

Project Name BLANCO PIPELINE
Project Number 11133 Phase 2000
Project Location BLANCO, NM

On-Site Geologist S. POPE
Personnel On-Site CORY CHANCE
Contractors On-Site RODGERS, INC.
Client Personnel On-Site GERRY GARIBAY

Depths in Reference	to Ground Surfac	e
ltem	Material	Donth
nem	ivialeriai	Depth (feet)
Top of Protective Casing	8" STEEL	+2.7
Bottom of Protective Casing Top of Permanent Borehole		-1.3
Casing		N/A
Bottom of Permanent Borehole Casing		N/A
op of Concrete	PRE-MIX	+.3
Bottom of Concrete		0.0
Top of Grout		N/A
Bottom of Grout		N/A
Top of Well Riser	4" SCH 40 PVC	+2.4
Bottom of Well Riser		-2.6
Top of Well Screen	4" SCH 40 PVC	-2.6
Bottom of Well Screen	.010 SLOT	-17.7
Top of Peltonite Seal	1/8 BENTONITE CHIPS	0.0
Bottom of Peltonite Seal		-1.8
Top of Gravel Pack	10-20 SILICA	-1.8
Bottom of Gravel Pack		-17.7
Top of Natural Cave-In		N/A
Bottom of Natural Cave-In		N/A
Top of Groundwater		-6.1
Total Depth of Borehole		-17.7

Comments: 13 (50 LB.) BAGS SAND, 1 (50 LB.) BAG BENTONITE CHIPS. BENTONITE CHIPS HYDRATED WITH 5 GALLONS

Geologist Signature

-just Trans

WATER.

WELL DEVELOPMENT & PURGING



GENERAL DATA

SERIAL NO. WD_

· · · · · · · · · · · · · · · · · · ·				PA	GE OF	
	NAME Blanco				^^	10/-1
	ио. 11133					77
DATE 1	18/93 FORM C	OMPLETED BY	CMChani	<u>e</u>		
		WELL	CONSTRUCTIO	N		
TOTAL DE	ртн (FT) <u>20-25</u>		BOREH	DLE DIAME	TER (IN) D	
GRAVEL P	ACK INTERVAL (FT)		WELL O	HAMETER I	NSIDE (IN) 4	
WELL PRO	TECTOR: VES .	NO	PADLOC	K NO	7532	
	OF FLUID INJECTED					
	MEASUREMENT 11/18		LUME CALCUL	ATION		
DALE OF	IG POINT TOR	2 2	, 1	TEM	FT ³	VOLUME
	VEL INSTRUMENT USE			CASING	 	7.5%
	ATER LEVEL (FT) 8			EL PACK		7.00
INITIAL W	EET OF WATER	. n		NG FLUIDS		
	EET OF WATER					7.54
LINEAR F	EET SATURALED GRAVE	L PACK				1. / ·
NOTE QU	ANTITIES ARE TO BE	CALCULATED PE	NOR TO DEVELO	MENT.		•
•	•		•			
			PMENT CRITE			
	OF DEVELOPMENT					
	JALITY MEASUREMENT		·			
	LUME (ANNULUS) (GAL)					
WATER VO	LUME TO BE REMOVED	(GAL) MIN	MUM 37-80	·	MUMIXAM	75.6
	YELOPMENT IS TO BE	PERFORMED IN	ACCORDANCE W	ITH PROJE	CT-SPECIFIC W	ELL.
		WATER QUA	ALITY INSTRUA	IENTS		
DATE	INSTRUMENT	SERIAL NO.	CALIBRATION PERFORMED (/)	TEOU	COMMENTS	
11/18/93	PH/(pr).	9206	V	CMC		
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BLANCO FIELD OFFICE MONITOR WELLS OCTOBER 1993 AND NOVEMBER 1993

COMPONENT	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
BENZENE	< 2.0	< 2.0	13.5	388	< 2.0	< 2.0
TOLUENE	< 2.0	< 2.0	232	279	2.5	2.7
ETHYLBENZENE	< 2.0	< 2.0	9.9	29.6	< 2.0	< 2.0
TOTAL XYLENES	< 2.0	< 2.0	85.2	468	< 2.0	< 2.0
NAPHTHALENE	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50
FLUORENE	< 0.10	0.32	5	26	< 0.10	< 0.10
PHENANTHRENE	< 0.05	< 0.05	0.17	0.11	< 0.05	< 0.05
ANTHRACENE	< 0.05	0.13	< 0.05	< 0.5	< 0.05	< 0.05
FLUORANTHENE	< 0.10	0.47	< 0.10	< 0.10	< 0.10	< 0.10
PYRENE	< 0.10	0.24	< 0.10	< 0.10	< 0.10	< 0.10
1-METHYLNAPHTHALENE	< 0.30	< 0.30	6.2	4.3	< 0.30	< 0.30
2-METHYLNAPHTHALENE	< 0.30	< 0.30	< 0.30	4.7	< 0.30	< 0.30
STATIC LEVEL (Feet)	5.3	4	5.3	3.4	8.5	8.65

MW-1,2,3,4 SAMPLED ON OCTOBER 20, 1993 MW-5,6 SAMPLED ON NOVEMBER 18, 1993



2709-D Pan American Freeway, NE Albuquerque, NM 87107 Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 311363

December 14, 1993

El Paso Natural Gas Company P.O. Box 4990 Farmington, NM 87499

Project Name/Number: BLANCO FIELD M.W. A9563

Attention: John Lambdin

On 11/19/93, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Sample N31253 was used as the QC sample for EPA method 8310. For the matrix spike, the recoveries are outside of acceptability limits. The RPDs are also outside of acceptability limits. A matrix spike was re-extracted. Due to limited sample volume it was not possible to re-extract both a matrix and a matrix spike duplicate. The second matrix spike confirmed that the low recoveries in the original spike were due to spiking error and that the matrix spike duplicate represents the recoveries for this matrix. A blank spike/blank spike duplicate, which meets acceptance criteria, is also provided in this report.

All analyses were performed by Analytical Technologies, Inc., 9830 S. 51st Street, Suite B-113, Phoenix, AZ.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.

Project Manager

H. Mitchell Rubenstein, Ph.D.

Laboratory Manager

MR: jd

Enclosure

Corporate Offices: 5550 Morenouse Drive San Diego, CA 92121 (619) 458-9141



CLIENT : EL PASO NATURAL GAS CO. DATE RECEIVED : 11/19/93

PROJECT # : A9563

PROJECT NAME : BLANCO FIELD M.W

REPORT DATE : 12/14/93

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ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	N31253 - MW #5	AQUEOUS	11/18/93
02	N31254 - MW # 6	AQUEOUS	11/18/93



---- TOTALS ----

MATRIX # SAMPLES **AQUEOUS** 2

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 31136301

TEST : POLYNUCLEAR AROMATICS (EPA METHOD 8310)

CLIENT : EL PASO NATURAL GAS CO. PROJECT # : A9563 DATE SAMPLED : 11/18/93 DATE RECEIVED : 11/19/93 PROJECT NAME : BLANCO FIELD M.W. DATE EXTRACTED : 11/22/93 DATE ANALYZED : 11/24/93 CLIENT I.D. : N31253 - MW#5 SAMPLE MATRIX : AQUEOUS UNITS : UG/L

DILUTION FACTOR: 1

COMPOUNDS	RESULTS	Qualifin
NAPHTHALENE	<0.50	<u> </u>
ACENAPHTHYLENE	<1.0	7
ACENAPHTHENE	<0.50	
FLUORENE	<0.10	1
PHENANTHRENE	<0.05	1
ANTHRACENE	<0.05	
FLUORANTHENE	<0.10	
PYRENE	< 0.10	
BENZO(A)ANTHRACENE	<0.10	
CHRYSÈNÉ	< 0.10	
BENZO(B)FLUORANTHENE	<0.10	-
EENZO(K)FLUORANTHENE	<0.10	
BENZO(A)PYRENE	<0.10	
DIBENŽO(a,h)ANTHRACENE	<0.20	
BENZO(g,h,i)PERYLENE	<0.10	
INDENO(1,2,3-CD)PYRENE	< 0.10	\/
1-METHYLNAPHTHALENE	<0.30	V
3-METHYLMAPHTHALENE	<0.30	
SURROGATE PERCENT RECOVERIES		

78 2-CHLORCANTHRACENE (%)



GAS CHROMATOGRAPHY - RESULTS

ATI I.D.: 31136302

TEST : POLYNUCLEAR AROMATICS (EPA METHOD 8310)

CLIENT : EL PASO NATURAL GAS CO.

DATE SAMPLED : 11/18/93
PROJECT # : A9563

PROJECT NAME : BLANCO FIELD M.W.

CLIENT I.D. : N31254 ~ MU#6

SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 11/18/93
DATE EXTRACTED : 11/22/93
UNITS : UG/L

DILUTION FACTOR: 1

COMPOUNDS	RESULTS	Qualition
NAPHTHALENE	<0.50	₹
ACENAPHTHYLENE	<1.0	3
ACENAPHTHENE	<0.50	
FLUORENE	<0.10	
PHENANTHRENE	<0.05	
ANTHRACENE	<0.05	
FLUORANTHENE	<0.10	
PYRENE	<0.10	
BENZO(A)ANTHRACENE	<0.10	1
CHRYSENE	<0.10	
BENZO(B)FLUORANTHENE	<0.10	
BENZO(K)FLUORANTHENE	<0.10	
BENZO(A)PYRENE	<0.10	
DIBENZO(a,h)ANTHRACENE	<0.20	
BENZO(g,h,i)PERYLENE	<0.10	
INDENO(1,2,3-CD)PYRENE	<0.10	
l-METHYLNAPHTHALENE	<0.30	
C-METHYLNAPHTHALENE	< 0.30	V
SURROGATE PERCENT RECOVERIES		

SURROGATE PERCENT RECOVERIES

2-CHLOROANTHRACENE (%) 67



GAS CHROMATOGRAPHY - RESULTS

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PROJECT NAME : BLANCO FIELD M.W. UNITS		:	11/22/93 11/24/93 UG/L
--	--	---	------------------------------

COMPOUNDS	RESULTS	
NAPHTHALENE	<0.50	
ACENAPHTHYLENE	<1.0	
ACENAPHTHENE	<0.50	
FLUORENE	<0.10	
PHENANTHRENE	<0.05	
ANTHRACENE	<0.05	
FLUORANTHENE	<0.10	
PYRENE	<0.10	
BENZO (A) ANTHRACENE	<0.10	
CHRYSENE	<0.10	
BENZO(B)FLUORANTHENE	<0.10	
BENZO(K)FLUORANTHENE	<0.10	
BENZO(A)PYRENE	<0.10	
DIBENZO(a,h)ANTHRACENE	<0.20	
BENZO(g,h,i)PERYLENE	<0.10	
INDENO(1,2,3-CD)PYRENE	< 0.10	
1-METHYLNAPHTHALENE	<0.30	
2-METHYLNAPHTHALENE	<0.30	

SURROGATE PERCENT RECOVERIES

?_CHT.ORONMPHRACENE	/ & \	8.4

Acceptable-Mislan



QUALITY CONTROL DATA

ATI I.D. : 311363

TEST: POLYNUCLEAR AROMATICS (EPA METHOD 8310)

CLIENT

: EL PASO NATURAL GAS CO.

PROJECT # : A9563

REF I.D. : 31136301

PROJECT NAME : BLANCO FIELD M.W.

DATE ANALYZED: 11/24/93

SAMPLE MATRIX : AQUEOUS

: UG/L

COMPOUNDS	SAMPLE RESULT		SPIKED SAMPLE		DUP. SPIKED SAMPLE	DUP. % REC.	RPD
ACENAPHTHYLENE PHENANTHRENE PYRENE PENZO(Y) EL HORANTHENE	<0.10	20 2.5 2.5 2.5	1.5 0.22 0.32 0.15	8* 9* 13* 6*	2.0	70 80 68 56	161* 160* 137* 161*
BENZO(K)FLUORANTHENE DIBENZ(a,h)ANTHRACENE	<0.10	5.0	0.15	_	2.5	50	165*

Noted. Sample Roselts and
are only Estimates and
are gualified as "J".

are qualified as "2/15/47"

Result out of limits



QUALITY CONTROL DATA

ATI I.D. : 311363

TEST: POLYNUCLEAR AROMATICS (EPA METHOD 8310)

CLIENT

: EL PASO NATURAL GAS CO.

PROJECT # : A9563

PROJECT NAME : BLANCO FIELD M.W.

REF I.D. : 31249903

DATE ANALYZED : 11/24/93

SAMPLE MATRIX : AQUEOUS

UNITS : UG/L

COMPOUNDS			SPIKED SAMPLE			DUP. % REC.	RPD
ACENAPHTHYLENE PHENANTHRENE PYRENE BENZO(K)FLUORANTHENE DIBENZ(a,h)ANTHRACENE	<1.0 <0.05 <0.10 <0.10 <0.20	2.5	16 2.1 2.5 2.2 3.9	80 84 100 88 78	2.5	80 88 104 92 80	0 5 4 4 3

Acceptable.

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Recovery = (Spike Sample Result - Sample Result)
       Spike Concentration
100
                    Average of Spiked Sample
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A Managard Composition Composition of the Managard Composi	🤰 San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerq
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DATE. //-/}~ [3]

Albuquerque

RCRA Metais by TCLP (1311) RCRA Metals by Total Digestion Silve E E Time: Date. RELINQUISHED BY: RECEIVED BY:(LAB) The 13 Priority Pollutant Metals Printed Name: Printed Name, SDWA Secondary Standards - Federal Signature: Signature: Company Israban - sbrandards vierning AWOS SnozirA - sbusbnst2 (rsbncos2 AWCI2 SDWA Primary Standards - Arizona Date: Polynudear Aromatics (610/8310) Time: RELINQUISHED BY: Volatile Organics GC/MS (624/8240) ANALYSIS (625/823) SM/OB sbruoqmoO bbAlletueN/essB Herbicides (615/8150) Printed Name: Printed Name: Signature: Сотрапу. Signature Company: Pesticides/PCB (608/8080) OEAN, S AIRO SAMPLED & RELINQUISHED BY: 1. Signature: Time: 1403 SON'S Volatiles (502.1/503.1), 502.2 Reg. & Unreg. Aromatic Hydrocarbons (602/8020) Chlorinated Hydrocarpons (601/8010) Company. Phones. Time Dale: RECEIVED BY (0208) 38TM/3XT8 Printed Name Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020) Signature: MOD 8015) Gas/Diesel Petroleum Hydrocarbons (418.1) (MATRIX LABID X/N/N/X (NORMAL) [\$\frac{1}{2}\text{WEEK} 107-49563-01-0911-0058-51-1170 Ü SAMPLE RECEIPT PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS. MATER IVATE'R 13108151 CONTAINERS CUSTODY SEALS RECEIVED INTACT RECEIVED COLD SANG AS ABOVE 1204 1.531 831-11 TIME J. J. J. J. J. J. 11-18-73 DATE RUSH) | 24hr | 48hr | 72hr | 1 WEEK PROJ. NAME: BLANCO FICLO MIV TOHN 02.00 PROJECT INFORMATION IWVY 9563 Sos 3753 SAMPLEID PROJECT MANAGER: COMPANY: COMPANY: ADDRESS: ADDRESS: BILL TO: SHIPPED VIA PHONE: PROJ. NO.: omments: FAX: P.O. NO.: PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

NUMBER OF CONTAINERS

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DISTRIBUTION: White, Canary - ATI • Pink - ORIGINATOR ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496 4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

Analytical Technologies, Inc.

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ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496 4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777 DISTRIBUTION: White, Cannary - ATI • Pink - ORIGINATOR

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

October 14, 1993

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

CERTIFIED MAIL RETURN RECEIPT NO. P-667-242-397

Ms. A.N. Pundari
Senior Compliance Engineer
El Paso Natural Gas Company
P.O. Box 4990
Farmington, New Mexico 87499

RE: GROUND WATER REMEDIATION EPNG BLANCO FIELD STATION BLANCO, NEW MEXICO

Dear Ms. Pundari:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) October 4, 1993 correspondence documenting the results of EPNG's ground water investigation at their Blanco Field Station and recommending installation of a remediation system.

The remediation proposal contained in the above referenced document is approved with the following conditions:

1. EPNG will install two additional monitor wells downgradient of the trench system to monitor the remediation system and further define the extent of contamination.

One well will be located on the south property line due south of test hole #5 and one monitor well will be located on the south property line due south of test hole #3. The monitor wells will be constructed in the same manner as the previously installed monitor wells with at least ten feet of well screen below the water table and 2 feet of well screen above the water table.

2. Ground water from the new monitor wells will be sampled and analyzed for benzene, toluene, ethylbenzene, xylene and polynuclear aromatic hydrocarbons using EPA approved methods.

Ms. A.N. Pundari October 14, 1993 Page 2

- 3. A completion report containing all information related to construction of the remediation system and installation and sampling of the new monitor wells will be submitted to OCD by January 15, 1994. The report will include a proposal for monitoring the remediation system.
- 4. EPNG will notify OCD at least one week in advance of all scheduled activities such that OCD may have the opportunity to witness the events and/or split samples.

Please be advised that OCD approval does not relieve EPNG of liability should the proposed system fail to effectively contain and remediate contaminants related to EPNG's activities. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-5885.

Sincerely

William C. Olson

Hydrogeologist

Environmental Bureau

xc: OCD Aztec District Office





RECEIVED

OCT 0 6 1993

OIL CONSERVATION DIV. SANTA FE

October 4, 1993

Mr. Bill Olson New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87504

Subject: El Paso Natural Gas Company's Blanco Field

In December 1988, while installing a new pipeline, hydrocarbons were discovered in the shallow groundwater. The nearby underground storage tanks (USTs) at the Field Office Garage were suspected to be leaking and were integrity tested. The tanks were found to be "leak tight" in December 1988. In December 1988, groundwater samples were taken from bellholes along the south fence. All of the groundwater analytical results were below WQCC standards.

Although the USTs were not found to be leaking, EPNG decided to remove the tanks in April 1989. In addition, EPNG removed soil near the UST area which had a hydrocarbon odor. This may be due to historical overfilling of the USTs.

Upgradient of the field office, a local garage had a leaking UST. The owners of the garage contracted with Billing and Associates (B&A) to install monitor wells near the leaking UST site and downgradient of the UST on EPNG property. A drawing provided by B & A with monitor well locations is under Tab 1. It is our understanding that free floating product in the groundwater was discovered in a trench along Highway 64 near W-11. EPNG does not know of any current remediation activities associated with the leaking UST.

Mr. Roger Anderson of NMOCD toured the Blanco Field Office in May 1989. He suggested that EPNG install monitor wells within our property. In December 1990, EPNG installed four monitor wells at the site. The monitor well construction details is under Tab 2.

Page 2 - Blanco Field Hydrocarbon Contamination

On August 25th, EPNG dug bellholes and obtained soil and groundwater samples. A drawing with the sample locations and a summary of the analytical results is under Tab 3. A tabulation of the 1993 BETX concentrations in groundwater is also under Tab 3.

To prevent offsite migration of contaminated groundwater, EPNG proposes to install a passive air stripper system. The system will consist of approximately 150 feet of slotted PVC pipe installed in a gravel bed just above the water table. The system will be driven by a series of wind turbines. The PVC pipe will installed from Testpoint #5 to Testpoint #6.

EPNG requests approval to install a passive air stripper system near the south property line. If you need additional information or have any questions please call me at 599-2176.

Anu Pundari

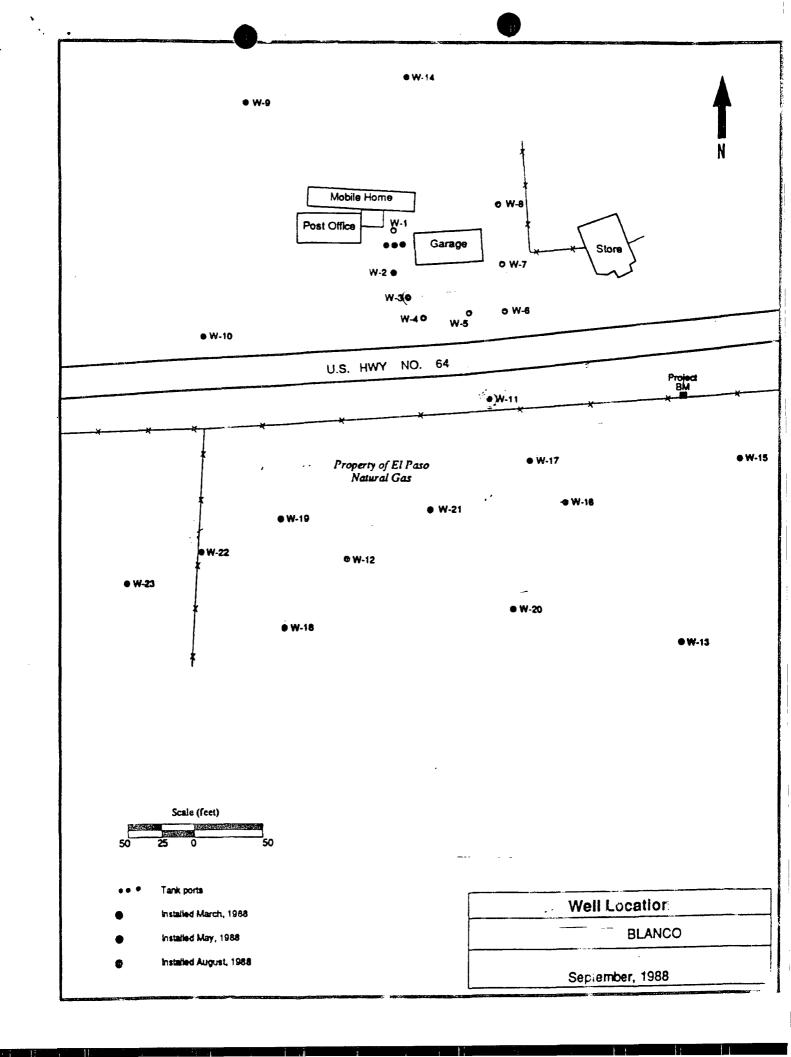
Sr. Compliance Engineer

anu Pundasi

cc: Mr. David Hall (EPNG)

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	7 🛖	Well	MW-1					
- ° KFTMT	Во	ring No. X-Rei						
	MONITOR WELL CONSTRUC	TION SUMM	ARY					
	Survey Coords:	Elevation Ground Le	avel					
_5			sing					
	Drilling Summary:	Construction T	ime Log:					
			Start	Finish				
	Total Depth 11 feet	. ————	Date Time					
	Borehole Diameter 8-Inch Casing Stick-up Height:	Drilling	12/6/90 1:15	12/4 2:00				
	Driller Sergent, Hauskins &							
	Beck with	Geophys.Logging:						
_	Rig CME- 75 Hollow stem auger	Casing:	12/4/2 2:05	12/4 2:20				
	Bit(s) N/A							
	Drilling Fluid NONE							
		Filter Placement:	12/6/90 2:25	12/4/90 2.35				
-	Protective Casing 12-Inch locking 5788		12/1/90 1:35	1:45				
	Well Design & Specifications	Development.		7.5				
	tron bodign i operations							
_	Basis: Geologic Log Geophysical Log Casing String (s): C = Casing S = Screen.	Well Development:						
	DepthString(s)Elevation		were eva					
	<u> </u>	trom the w	d line.	disposable				
	<u>.3 - 5 Cz</u>							
-	5 - 10 51			ar a saint and				
	10 - 11 End Cap	Stabilization Te	st Data:					
		Time p H	Spec. Cond.	Temp (C)				
<u>.</u>	Casing: C1 12-inch locking steel							
	manhale cover							
	C2 Z-Inch SCH 40 PVC Hush-Haveading blank							
	Screen: S1 2-inch SCH40 PVC flushing							
_	sz threaded, .010 s/ot	Recovery Data:						
		Q=	s _o =					
	Filter Pack: Colorado 31/10a 3and 10-20 mesh 3.8 - 11 feet :	100						
		R 80 C 60	 					
-	Grout Seal: Type IT Portland cement	S ∞						
	0-2.8 Feet 1/2	¥ 40	+	 				
	Bentonite Seal: Pel-Plug '14 inch	R 20	+					
	bentomte pellets 2.B -3.B fect	0	40 60	80 100				
-		TIME	()	'**				
	Comments:							
_				*				

180x/A	
SUPERVISED BY & GALIBAY	PATE 12/6/90
	!

Borehole Diameter B- Inc. h Casing Stick-up Height:	Finish
Survey Coords: Drilling Summary: Elevation Ground Level	Finish
Top of Casing Drilling Summary: Construction Time Log: Start Total Depth B feet Task Date Time D Borehole Diameter B- Ine h Casing Stick-up Height:	Finish
Drilling Summary: Construction Time Log: Start Total Depth	Finish
Total Depth <u>B feet</u> Task Date Time D Borehole Diameter <u>B-Ine.h</u> Casing Stick-up Height:	ate Time
Total Depth B feet Task Date Time D Borehole Diameter B-Inc.h Drilling 12/6/90 3:05 13/	ate Time
Borehole Diameter B-Inc.h Drilling 12/6/90 3:05 134 Casing Stick-up Height:	
Casing Stick-up Height:	
Driller <u>Sergent Hauskins & Beckwith</u> <u>Albuquerque</u> , NM	
Geophys.Logging:	16/90 3:45
Rig <u>CME -75 Hollow Stem Auger</u> Casing: 3/6/90 3:30 73/6/90	
Drilling Fluid NONE	
Filter Placement: 4/6/40 3:55 /2	16/90 4:05
	7/90 2:05
Well Design & Specifications	
Basis: Geologic Log Geophysical Log Well Development:	
Casing String (s): C = Casing S = Screen. Well Development:	
$\left \begin{array}{c c} \hline \\ \hline $	
7 - 8 End Cap Stabilization Test Data:	
1	emp (C)
Casing: C1 12-inch locking steel manhole cover	
cz 2-inch SCH40 PVC	
Flush - threading blank Screen: S1 2-inch SCH 40 PVC Flushing	
Screen: S1 2-inch SCH 40 PVC Flushing Hereaded, 010 slot Recovery Data:	
Q=	
Filter Pack: Colorado Stica Sand 100	
[
Grout Seal: Type I Portland coment C 60	
pentonite sellets 1-2 feet	
20 40 60 8	100
TIME ()	
Comments:	

The second second	7	W: 17	D. MW-3	2000.000
° MEM	Bo	oring No. X-Re		
	MONITOR WELL CONSTRUC	TION SUMM	ARY	
	Survey Coords:	Elevation Ground Le	av e :	
5			sing	
	Drilling Summary:	Construction T	ime Log:	
	,		Start	Finish
	Total Depth 12 feet	Task	Date Time	Date Time
0 -	Borehole Diameter 8-Inch	Drilling	12/7/90 9:00	13/7/20 9:30
	Casing Stick-up Height: Driller Seraent, Hauskins &			
	Beckwith			
	Albuqueraye, NM	Geophys.Logging:		
15	Rig CME-75 Hollow Stem auger	Casing:	12/1/90 9:38	13/1/90 9:45
	Bit(s)			
	Drilling Fluid NONE			
	Oriming Finding	Filter Placament:	14/90 10:00	13/1/20 10:10
	Protective Casing 12-Inch bc/cine steel	Cementing:	12/7/90 1:20	12/1/20 1:30
		Development:	12/7/80 2:30	B/7/90 5:00
	Well Design & Specifications			
	Basis: Geologic Log Geophysical Log	Maria Davida a a		
	Casing String (s): C = Casing S = Screen.	Weil Developm	ent:	
	Depth String(s) Elevation			
	Depth String(s) Elevation O - / C/			
	·3 - 6 Cz			······································
	11 - 12 End Cap	Stabilization Te	st Data:	
		Time 2 H	Spec. Cond.	Temp (C)
	Casing: C1 /2-inch locking steel			
	manhale cover			
	cz 1-inch JCH to PVC			
	flush-threading black			
	Screen: S1 2-Inch JCH 40 PVC flushing threaded, 010 slot	1		
	S2	Recovery Data:		
	1	Q=	s _o =	
	Filter Pack: Colorado Silica sand	•• :00		
	To so many in the Feet	. 30 <u></u>		
	Grout Seal: Type II Portland Climent	30 E 30 C 50		
	0-4 feet W	\$ <0		
	0/ 2/12/14/14	E		
	Bentonite Seal: Pel-Plug 1/4 12ch bentonite Dellets 4-5 feet	7 20 Y		
	DERTHOUSE CENTES TO TEEL	20	±0 50	30 :00
		TIME	()	
		MA		
	Comments:			
			<u> </u>	
: 1 f f				

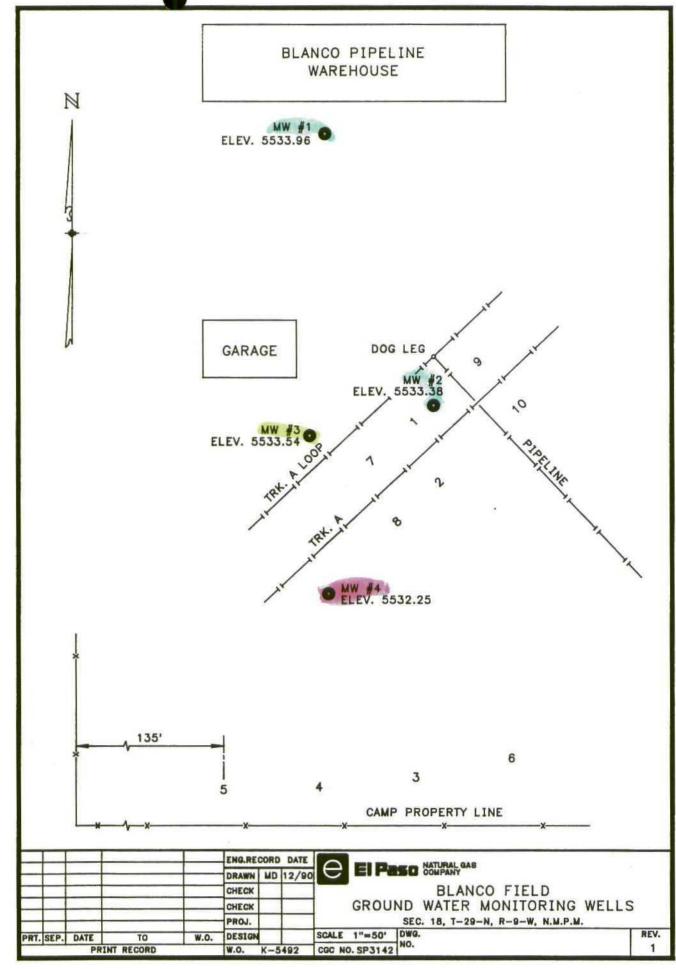
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- Marien	● Bo	V. 'o. <u> </u>					
	MONITOR WELL CONSTRUC						
_5	Survey Coords: Elevation Ground Level						
	Drilling Summary:	Construction Time Log: Start Finish					
_10	Total Depth <u>8.5 feet</u> Borehole Diameter <u>8-1nch</u> Casing Stick-up Height: Driller <u>Sergent</u> , Houskins 1 Beckwith Albuquerque, NM						
	Rig CME-75 Hollow Stem Auger Bit(s) N/A Drilling Fluid NONE	Geophys.Logging: [12/7/90 12:30 12/7/90 12:45					
	Protective Casing 12-Inch locking Steel Mankole Could Well Design & Specifications	Filter Placament: 121.7/20 13:50 13/7/20 12:56 Cementing: 12/7/20 1:00 12/7/20 1:15 Development: 12/7/20 3:00 12/7/20 5:30					
	Basis: Geologic Log Geophysical Log Casing String (s): C = Casing S = Screen. Depth	Well Development: 6 volumes were evacuated from the well with a disposable backer and line.					
	Casing: C1 12-12ch (sching steel Monthole Cover	Stabilization Test Data: Time p H Spec. Cond. Temp (C)					
	C2 2-uch 3CH 40 PVC flush-threading blank Screen: S1 2-inch 3CH 40 PVC flusking Threaded 010 3/0 t S2	Recovery Data: Q= S _Q =					
	Filter Pack: Colorado 5/1/CA 5 and 10-20 mesh 2.5-8.5 feet [3] Grout Seal: Type II Port/and Coment 0-1.5 feet [3] Bentonite Seal: Pel-Plug /4 Inch Dentonite pellets 1.5-2.5 feet	# 100 R 30 E 00 C 60 V 40 E 20 Y					
-	Comments:	20 40 50 80 100 TIME ()					
-							

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Groundwater Analytical Results August 1993

Test	Depth	Benzene	Toluene	Ethylbenzene	Xylenes
Hole	(Feet)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
#1	5	<12	<12	850	<12
#2	5	<12	<12	1400	3900
#3	3.5	< 5	< 5	< 5	76
#5	8	16	< 2.5	190	99
#7	6	< 25	< 25	480	330
#8	5.5	<12	36	1500	4300
#10	5	< 0.5	< 0.5	< 0.5	< 0.5
Trip Blank	N/A	< 0.5	< 0.5	< 0.5	4.2

Soil Analytical Results August 1993

Test Hole	Depth	TPH by Mod.418.1	Benzene	Toluene	Ethylbenzene	Xylenes
	(feet)	(mg/kg)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
#1	4	49	< 0.025	< 0.025	< 0.025	< 0.025
#2	2	<10	< 0.025	< 0.025	0.63	0.26
#2	3.5	44	< 0.12	< 0.12	1.5	3.9
#3	4	3764	< 0.12	< 0.12	0.4	1.3
#4	4	<10	< 0.025	< 0.025	< 0.025	< 0.025
#5	7	<10	< 0.025	< 0.025	0.14	0.16
#6	4	<10	< 0.025	< 0.025	< 0.025	< 0.025
#7	5	<10	< 0.025	< 0.025	< 0.025	< 0.025
#8	5.5	< 10	< 0.025	< 0.025	1.4	4.9
#9	6	< 10	< 0.025	< 0.025	< 0.025	< 0.025
#10	1.5	11179	< 0.025	< 0.025	0.037	0.27
#10	6	<10	< 0.025	< 0.025	< 0.025	< 0.025

Monitor Wells 1993 Summary

Well Number	Sample Date	Static Level (feet)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)
1	1/25/93	3.8	< 5	< 5	< 5	< 5
2	1/25/93	2.7	< 5	< 5	< 5	< 5
3	1/25/93	3.8	7.1	8.7	85.7	122
4	1/25/93	2.2	447	76	298	657
1	4/30/93	4.1	<2	< 2	< 2	< 2
2	4/30/93	2.55	<2	<2	<2	<2
3	4/30/93	3.9	7.2	6.8	234	146
4	4/30/93	1.9	172	27.2	183	294
1	7/21/93	5.6	<2	<2	<2	<2
2	7/21/93	4.2	< 2	< 2	< 2	< 2
3	7/21/93	5.5	7.9	< 2	97	10
4	7/21/93	3.6	63	4.4	68	92

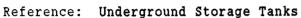


P. O. BOX 1492 EL PASO, TEXAS 79978

PHONE: 915-541-2600

February 17, 1989

Mr. David Boyer, Chief Environmental Bureau Energy and Mineral Department New Mexico Oil Conservation Division 310 Old Santa Fe Trail, 206 Sante Fe, New Mexico 87504



at Blanco Field and Kutz Field

Dear Mr. Boyer:

During our meeting in your offices yesterday, you inquired about the situation with the referenced tanks. I am enclosing copies of the information sent to Ms. Helen Shumway at the New Mexico Environmental Improvement Division.

If you have questions, please contact me at 915/541-2832.

Very truly yours,

Senior Environmental Engineer

Environmental and Safety Affairs Department

HV:cds

Enclosures

cc: Helen Shumway, NMEID

File: 5206 h/w 5216 h/w



P O BOX 1492 EL PASO, TEXAS 79978

PHONE: 915-541-2600

January 30, 1989

Ms. Helen Shumway Underground Storage Tank Division New Mexico Environmental Improvement Division 1190 St. Francis Drive Santa Fe, NM 87503

Reference: Blanco Field Underground Storage Tanks

Dear Ms. Shumway:

Enclosed for your review are the following documents comprising the groundwater quality evaluation report which documents the leaking underground tank incident at the Blanco Field facility:

- Sample Location Map
- Groundwater and Soil Analyses
- Tabulated Analytical Results
- Tank Integrity Test Results

Both tanks passed the integrity test. The gasoline tank (EPNG No. 5206-1) had a small leak in the fill neck. The fill neck was repaired.

If you have questions, please contact me at 915/541-2832.

Very truly yours,

Henry Van, Ph.D, C.E.P.

Senior Environmental Engineer

Environmental and Safety Affairs Department

HV:cds

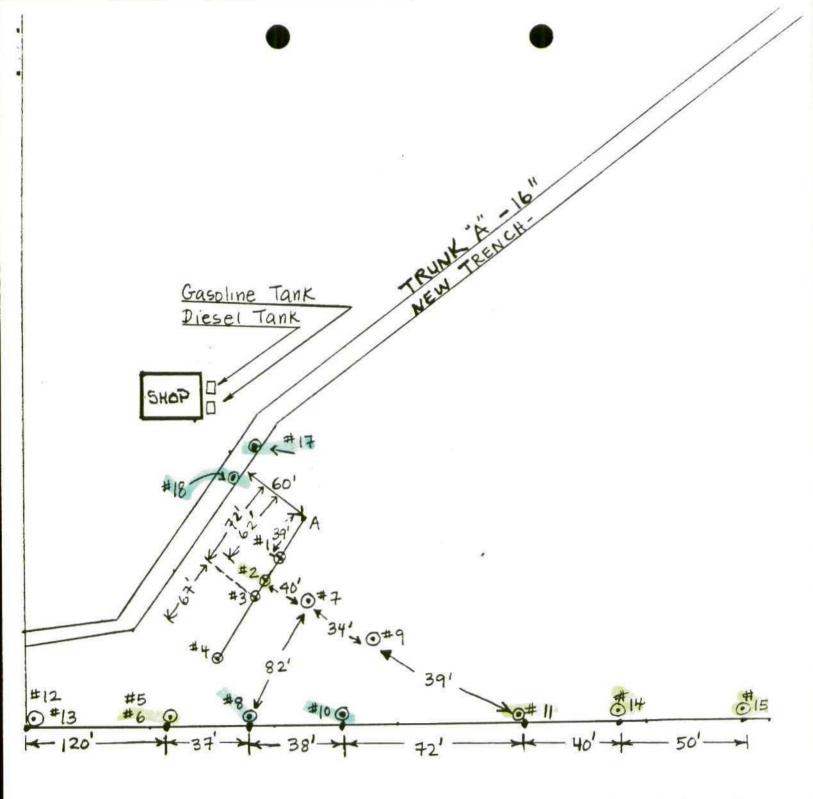
Enclosures

cc: A. N. Pundari

BLANCO FIELD GROUNDWATER QUALITY EVALUATION

SAMPLE LOCATION MAP

El Paso Natural Gas Co. January 30, 1989



Not to Scale

O: Sample Locations

BLANCO FIELD GROUDDWATER QUALITY EVALUATION

By: Lou Pundari Engr.

EL PASO NATURAL GAS CO. DEC. 5, 1988

BLANCO FIELD GROUNDWATER QUALITY EVALUATION

GROUNDWATER AND SOIL ANALYSES

El Paso Natural Gas Co. January 30, 1989

	•						
			GAS COM. TY				
			AMPLING DATA				
Facility No.							4 Hr
Sample Location Blanco	Field - 120 ft	t fro	m SW corner	_	_ Chara	e	
Sampling Site Description	#6 on field	no	145				
				_	רא	. [7]	
Date of Collection (MMDDYY)		•	Collection Meth	od	i∐ Gr	ab LL Comp	
Sample Collected By		2		P	hone _		
Laboratory Conducting Analys	is IML						
-	ANALYSIS REQUESTED	(che	ck appropriate blocks	ノ			
GROUP A	Hardness		Residue, Nonfilterable			GROUP T	
Ammonia	Iron		Residue, Settleable	\boxtimes	Benze	ne	
Chemical Oxygen Demand	Lead		Residue, Volatile		Benzo	-a-pyrene	
Kjeidahl Nitrogen	Magnesium		Silica		Bromo		
Nitrate	Manganese		Sulfate	L		dichloromethar	
Nitrite	Mercury		Sulfite		Carbo	n Tetrachloride	
Oil & Grease	Molybdenum		Surfactants-MBAS		Chloro	form	
Organic Carbon	Nickel				Chioro	methane	
Orthophosphate	Potossium		GROUP H		10.00	nochiorometha	
Phosphorus, Total	Selenium		BHC Isomers			ichloroethene (
	Silver		Chlordane			ichloroethane (
GROUP D	Sodium		DDT Isomers			ichloroethylene	(1,1
Cyanide, Total	Thailium		Dieldrin	\boxtimes	<u> </u>	enzene	
	Zinc		Endrin	L		ne Dibromide	
GROUP E			Heptachior	L		ene Chioride	
Phenois	GROUP G		Heptachlor Epoxide	L	,	nethylnapthaien	88
	Acidity, Total		Lindone	\boxtimes	Naphu	naiene, Totai	
GROUP F	Alkalinity, Tatal		Methoxychior		PAH		
Aluminum	Alkalinity, Bicarbonate		Toxaphene	Ĺ	PCBs		
Arsenic	Bromide	_	2.4-D	Ĺ		2Tetrachioroeth	
Barium	Carbon Dioxide		2.4.5-TP-Slivex	Ĺ		Trichloroethane	
Beryilium	Chloride	$\perp I$	2.4,5-T	Ĺ		Trichloroethane	
Boron	Color	$\perp \Gamma$		Ĺ		Trichloroethyler	ie (T
Cadmium	Fluoride	\bot	GROUP J	بَــا		methanes	
Calcium	Iodide	41	Sulfides		тох		
Chromium, Total	Odor	41		X	Toluen		
Cobait	Residue, Total		Asbestos	سَا		Chloride	
Copper	Residue, Filterable (TD	5)	Ignitability	X	Xylene	e, Total	
COMMENTS/SPECIAL INSTRUCT	TIONS						
							_
	·						
DELINUMENTA DA .	RELINQUISHED BY	2,	RELINQUISHED BY	-			
RELINGUISHED BY 1. A: Fundari 16:30	WFPINACISHER BI	۵.	WEFINANISHER BA		3.	ON SITE AN	MALYS
A. Pundari 16-30 Signature) (Time) A. Pundari 12/9/88	(Signature)	(Time)	(Signature)		(Time)	Turbidity	
(Print Name) (Date)	(Print Name)	(Date)	(Print Name)	_	(Date)	Flow	
EPN G- (Company)	(Company)		(Company)			Chiorine, Total	
(RECEIVED BY	2.	RECEIVED BY		3.	and the role	
received BY 1.	MEGETAED BI	٤.	NEGELTED BY			Dissolved, Oxygen	
Signature) , (Time)	(Signature)	(Time)	(Signature)		(Time)	рH	
KON KICHARDSON 12-9-88			1/5				
(Print Name) (Date)	(Print Name)	(Date)	(Print Name)		(Deta)		

(Date) (Print Name)

(Date) (Print Name)

Report Date: 01/03/89

12/05/88

Date Sampled:

Client: El Paso Natural Gas

Sample ID: F88353 Laboratory Number: F2309

Analysis Requested:

Date Received: 12/09/88 Purgable Aromatics Date Extracted: NA

Sample Matrix: Date Analyzed: 12/19/88 Water

Parameter	Concentration		Units
BENZENE	1.4	(0.2)	ug/l
ETHYLBENZENE	5.7	(0.2)	ug/1
TOLUENE	0.6	(0.2)	ug/l
m,p-XYLENE	ND	(0.2)	ug/l
O-XYLENE	ND	(0.2)	ug/1
NAPHTHALENE	ND	(1.0)	ug/l

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.) ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Senior Organic Chemist

FI BAGG MATERIA	
EL PASO NATURAL GAS COMP ENVIRONMENTAL SAMPLING	
PHILIPANILIPHE ALLIANING	
ENVIRUNMENTAL SAMPLING	

EL PASO NATURAL GAS COMPANION DE LA COMPANION							
	Marin Water	•	हिल्लिहाइहा	4	T		
Facility No. Sample Matrix Water Sample No. F88357 Time 24 Hr. Sample Location Blanco Field - 157 ft from SW corner Charge							
Sample Location	# 0 - 15+ +7	1	om swarren	<u> </u>	_ Charg	d	:
Sampling Site Description	48 on tierd	<u>ж</u>	notes				
Date of Collection (MMDDYY)			Collection Meth				
Sample Collected By				Pł	one _	325-28	4)
Laboratory Conducting Analysi	s IM L						
	ANALYSIS REQUESTED	(chec	k appropriate blocks	<u>ر</u>			
GROUP A	Hardness	F	lesidue, Nonfilterable			GROUP T	
Ammonia	Iron		lesidue, Settleable	\geq	Benze		
Chemical Oxygen Demand	Lead	F	lesidue, Volotile	<u> </u>	Benzo	-a-pyrene	
Kjeidahi Nitrogen	Magnesium		illea		Bromo		
Nitrate	Manganese		uifate	<u> </u>		odichloromethan	·
Nitrite	Mercury		iulfite	_		n Tetrachloride	
Oil & Grease	Molybdenum		ourfactants-MBAS	_	Chlore		
Organic Carbon	Nickel					methane	
Orthophosphate	Potassium		GROUP H			nochloromethar	
Phosphorus, Total	Selenium		HC Isomers	_		ichloroethene (
	Silver		Chiordane	_		ichloroethane (
GROUP D	Sodium	- - -	DT laomers			ichloroethylene	(1,1-
Cyanide, Total	Thailium	+	leldrin	\times		enzene	
	Zinc		ndrin			ne Dibromide	
GROUP E			leptachior			ene Chioride	
Phenois	GROUP G		leptachlor Epoxide			ethylnapthalen	
	Acidity, Total	+-+-	indane	\times		naiene, Total	
GROUP F	Alkalinity, Total		lethoxychior		PAH		
Aluminum	Alkalinity, Bicarbonate		oxaphene		PCB.	5	/00
Arsenic .	Bromide		.4-D			2Tetrochioroeth	
Barium	Carbon Dloxide		.4.5-TP-Silvex			Trichloroethane	
Beryllium	Chloride	+++2	.4.5-T			Trichloroethane Trichloroethylen	
Boron	Color Fluoride	+-+-	CROUR	_		methanes	(1CE
Calcium	Iodide	++=	GROUP J		TOX	meuldnes	
Chromium, Total	Odor	++3	OITIONS		Toluen		
Cobait	Residue, Total	++	sbestos	\sim		Chloride	
	Residue, Filterable (TDS		gnitability	$\overline{}$		s. Total	
Copper	Residue, Filterable (155	7 1	gnitability		Aylelle	8, 10tgt	
COMMENTS/SPECIAL INSTRUCT	IONS						
RELINQUISHED BY , 1.	RELINQUISHED BY	2.	RELINQUISHED BY		3.		
a. Pundani 16:30		•	ALLINGOIDINED BY		•	ON SITE AN	ALYSES
(Signature) (Time)	(Signature)	(Time)	(Signature)		(Time)	Turbidity	
A. Pundari 12/5/88	(Balan Mana)	(0 at -)	(Balan Nama)		(5 etc)		
(Print Name) (Data)	(Print Name)	(Date)	(Print Name)		(Date)	Flow	
(Company)	(Company)		(Company)		•	Chiorine, Total	m
RECEIVED /BY / 1.	RECEIVED BY	2.	RECEIVED BY		3.		
Kritichandom 1645						Dissolved, Oxygen	<u> </u>
(Signatura) (Time) KM KY LAROSC N 12-98	(Signature)	(Time)	(Signature)		(Time)	рН	
(Print Name) (Date)	(Print Name)	(Dote)	(Print Name)		(Date)	Temperature	
1 / /// 1 }				_	المراجع المراجع		

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: Date Sampled: 12/05/88 F88354 Date Received: 12/09/88 Laboratory Number: F2310

Date Extracted: NA Analysis Requested: Purgable Aromatics

Sample Matrix: Date Analyzed: 12/19/88 Water

	Parameter	Concent	Units	
	BENZENE	ND	(0.2)	ug/l
	ETHYLBENZENE	ND	(0.2)	ug/l
	TOLUENE	ND	(0.2)	ug/1
K	m,p-XYLENE	ND	(0.2)	ug/l
	O-XYLENE	ND	(0.2)	ug/1
	NAPHTHALENE	ND	(1.0)	ug/1

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.) ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Mack M. Morgan Senior Organic Chemist

	EL PASO NATO ENVIRONMENTA	JRAL L S	GAS COMP AMPLING DATA			
Focility No.	Facility No. DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD					
Sample Location Blance	0 Field - 195 +	ee,	+ from SW cor	ne	√Chara	
Sampling Site Description _	#10 on field	0	notes			
Date of Collection (MMDDYY)	120588		Collection Meth	nod	⊠ G	rab
Sample Collected By				D:	hone	325-2841
_						
Laboratory Conducting Analys				_		
GROUP A	ANALYSIS REQUESTED			-	T	oneur 7
Ammonia	Hardness	1	Residue, Nonfilterable	 	 	GROUP T
	Iron		Residue, Settleable	14	Benze	
Chemical Oxygen Demand	Lead	-	Residue, Volatile	╀-		-a-pyrene
Kjeldahi Nitrogen	Mognesium	-	Silica	<u> </u>	Brome	
Nitrate	Manganese	-	Sulfate	 		odichloromethane
Nitrite	Mercury		Sulfite	↓_		n Tetrachloride
Oli & Grecae	Molybdenum		Surfactants-MBAS	1	Chiore	
Organic Carbon	Nickel			L		methane
Orthophosphate	Potassium		GROUP H	L		mochioromethane
Phosphorus, Total	Selenium		BHC Isomers	Ļ	<u> </u>	ichloroethene (DCE)
	Silver		Chlordane		1,2-0	ichloroethane (EDC)
GROUP D	Sodium		DDT Isomers		1,1-0	ichloroethylene (1,1-
Cyanids, Total	Thallium		Dieldrin	\mathbb{X}	Ethylb	enzene
	Zinc		Endrin	Π	Ethyle	ne Dibromide
GROUP E			Heptachior	Π	Methy	lene Chloride
Phenois	GROUP G	I	Heptachlor Epoxide		Monor	nethylnapthalenes
	Acidity, Total		Lindone	X	Napht	halene, Total
GROUP F	Alkalinity, Total		Methoxychior	1	PAH	
Aluminum	Alkalinity, Bicarbonate		Toxophene		PCB:	
Arsenic	Bromide		2,4-D		1,1,2,	2Tetrachioroethane(PC
Barium	Carbon Dloxide		2,4,5-TP-Silvex	\vdash		-Trichloroethane
Beryilium	Chloride		2,4,5-T	\vdash		Trichloroethone
Boron	Color	-		\vdash		Trichloroethylene (TC)
Cadmium	Fluoride		GROUP J	_		omethanes
Calcium	lodide		Sulfides	╁	TOX	
Chromium, Total	Odor	1		V	Toluer	10
Cobait	Residue, Total		Asbestos	<u> </u>		Chloride
Copper	Residue, Filterable (TDS)		Ignitability	\Box		e. Total
Copper	Residue, Filterable (103)		Ignitobility		Aylene	
COMMENTS/SPECIAL INSTRUC	COMMENTS/SPECIAL INSTRUCTIONS					
RELINQUISHED BY 1. a. Pundani 16:30	RELINQUISHED BY	2.	RELINQUISHED BY		3.	ON SITE ANALYSE
(Signature) (Time) A. Pundan 1215/88	(Signature) (T	lme)	(Signature)		(Time)	Turbidity
(Print Name) (Dats)	(Print Name) (C	ote)	(Print Name)		(Date)	Flow
(Company)	(Company)		(Company)			Chlorine, Total
RECEIVED/BY / 1.	RECEIVED BY	2.	RECEIVED BY		3.	Dissolved, Oxygen
(Spendire) (Time)	1	lme)	(Signature)		(Time)	рн
(Print Name) (Deta)		ota)	(Print Name)		(Deta)	Temperature
$\sim M$	1		i .			

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: F88355 Date Sampled: 12/05/88 Laboratory Number: F2311 Date Received: 12/09/88

Analysis Requested: Purgable Aromatics Date Extracted: NA

Sample Matrix: Water Date Analyzed: 12/19/88

	Parameter	Concentration		Units
	BENZENE	ND	(0.2)	ug/l
	ETHYLBENZENE	ND	(0.2)	ug/l
	TOLUENE	ND	(0.2)	ug/l
*	m,p-XYLENE	ND	(0.2)	ug/l
	o-XYLENE	ND	(0.2)	ug/l
	NAPHTHALENE	ND	(1.0)	ug/l

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982)

602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)

ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Jack M. Morgan

Senior Organic Chemist

** Spike Analysis Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: : F88355 Date Sampled: 12/05/88 Laboratory Number: F2311 Date Received: 12/09/88

Analysis Requested: Purgable Aromatics Date Extracted: NA

Sample Matrix: Water Date Analyzed: 12/19/88

Parameter	Spike	Concentration		(Recovery)	Units	
BENZENE	10.0	9.7	(0.2)	97.0 %	ug/1	
ETHYLBENZENE	10.0	9.0	(0.2)	90.0 %	ug/l	
TOLUENE	10.0	10.2	(0.2)	102 %	ug/1	
m,p-XYLENE	10.0	7.4	(0.2)	74.0 %	ug/l	
O-XYLENE	15.0	13.4	(0.2)	95.7 %	ug/1	
NAPHTHALENE		ND	(1.0)		ug/1	

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)

ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Jack M. Morgan

Senior Organic Chemist

4	EL PASO NATUI	RAL GAS COM: BATA				
Facility No						Hr.
Sample Location Blance			er	_ Charg	G	
Sampling Site Description	#11 on field	d notes				
Date of Collection (MMDDYY)				M _a	ов	
Sample Collected By	$\hat{\theta} : \hat{P}_{A} = \hat{\theta} = \hat{\phi}$	Collection Metr				
			. PI	none	323 20 1	
Laboratory Conducting Analys						
GROUP A	ANALYSIS REQUESTED				GROUP T	
Ammonia	Iron	Residue, Nonfilterable Residue, Settleable	+	Benze		
Chemical Oxygen Demand	Lead	Residue, Volatile	┼		-g-pyrene	
Kjeldahi Nitrogen	Magnesium	Silica	+-	Bromo		
Nitrate	Manganese	Sulfate	+		dichloromethan	
Nitrite	Mercury	Sulfite	+-		n Tetrachloride	
Oil & Grease	Molybdenum	Surfactanta-MBAS	\dagger	Chlore		
Organic Carbon	Nickei			Chiore	methane	
Orthophosphate	Potassium	GROUP H		Dibror	nochioromethan	•
Phosphorus, Total	Selenium	BHC Isomers	Ì	1,1-D	ichloroethene (l	DCE)
	Silver	Chiordone		1,2-D	ichioroethane (l	EDC)
GROUP D	Sodium	DDT Isomers		1,1-0	ichloroethylene	(1,1-
Cyanids, Total	Thallium	Dieldrin	X	Ethylb	enzene	
	Zinc	Endrin			ne Dibromide	
GROUP E		Heptachior	_		ene Chloride	
Phenois	GROUP G	Heptachlor Epoxide			rethylnapthalene	•
	Acidity, Total	Lindane	\bowtie		haiene, Totai	
GROUP F	Alkalinity, Total	Methoxychior	↓	PAH		
Aluminum	Alkalinity, Bicarbonate	Toxophene	╀-	PCBs	2T-4	(P
Arsenic Barium	Bromide Carbon Dioxide	2,4-0			2Tetrachioroetha Trichioroethane	ne(F
Beryllium	Chloride	2,4,5-TP-Silvex 2,4,5-T	+		Trichloroethane	
Boron	Color	2,7,3-1	╁		Trichioroethylen	(70
Cadmium	Fluoride	GROUP J	\vdash		methones	- (10
Calcium	Iodide	Sulfides	-	TOX		
Chromium, Total	Odor		abla	Toluen	6	
Cobait	Residue, Total	Asbestos			Chloride	
Copper	Residue, Filterable (TDS)	Ignitability	X	Xylene	s. Total	
COMMENTS/SPECIAL INSTRUCT	TIONS					
					_	
RELINQUISHED BY 1.	RELINQUISHED BY	2. RELINQUISHED BY		3.	ON SITE AN	AI VC
a. Pundan 16:30					Turbidity	
	1	ne) (Signeture)		(Time)	, or or or or	
A. Pundari 12/5/88 (Print Name) (Dete)		rte) (Print Name)		(Deta)	Flow	
EPNG					7104	
(Corfigany) /	(Company)	(Company)			Chlorine, Total	
RECEIVED BY / 1.	RECEIVED BY	2. RECEIVED BY		3.	Dissolved, Oxygen	
(Spiriture) (Time)	(Signeture) (Tir	ne) (Signature)		(Time)		
RONKICHIOSON 12-9-51				,,	рH	
(Print Name) (Date)	<u> </u>	te) (Print Name)		(Deta)	Temperature	
TML						ستو

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: F88356 Laboratory Number: F2312

Analysis Requested: Purgable Aromatics

Sample Matrix:

Water

Date Received: 12/09/88 Date Extracted: NA

Date Sampled:

12/05/88

Date Analyzed: 12/19/88

	Parameter	Concentration		Units	
	BENZENE	ND	(0.2)	ug/1	
	ETHYLBENZENE	ND	(0.2)	ug/l	
	TOLUENE	0.5	(0.2)	ug/l	
*	m,p-XYLENE	1.1	(0.2)	ug/l	
	O-XYLENE	ND	(0.2)	ug/l	
	NAPHTHALENE	ND	(1.0)	ug/l	

8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.) ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Senior Organic Chemis

•	EL PAS ENVIRON	SO NATURAL GAS COM HATA		
Sample Location Blance Sampling Site Description	o Field - 30	1 Sample No. F8835 07 feet from Sw con Field notes	7 ner	Time 24 H
Date of Collection (MMDDYY) Sample Collected By Laboratory Conducting Analysis	4. Pundani IML	Callection Met		Grab Comp
GROUP A	Hardness	Residue, Nonfliterable	_	GROUP T
Ammonia	Iron	Residue, Settleable	_	Benzene
Chemical Oxygen Demand	Lead	Residue, Volatile	T	Benzo-a-pyrene
Kjeldahi Nitrogen	Magnesium	Silico	T	Bromoform
Nitrate	Manganese	Sulfate		Bromodichtoromethane
Nitrite	Mercury	Sulfite		Carbon Tetrachloride
Oil & Grease	Molybdenum	Surfactants-MBAS	1	Chioroform
Organic Carbon	Nickel			Chieromethane

GROUP A	Hardness	Residue, Nonfliterable		GROUP T
Ammonia	Iron	Residue, Settleable	\times	Benzene
Chemical Oxygen Demand	Lead	Residue, Volatile		Benzo-a-pyrene
Kjeldahi Nitrogen	Magnesium	Silico	T	Bromoform
Nitrate	Manganese	Suifate	T	Bromodichtoromethone
Nitrite	Mercury	Sulfite		Carbon Tetrachloride
Oil & Grease	Molybdenum	Surfactante-MBAS		Chloroform
Organic Carbon	Nickei			Chloromethane
Orthophosphate	Potassium	GROUP H		Dibromochioromethane
Phosphorus, Total	Selenium	BHC Isomers	1	1,1-Dichloroethene (DCE)
	Silver	Chlordane	T	1,2-Dichloroethane (EDC)
GROUP D	Sodium	DDT Isomers		1,1-Dichloroethylene (1,1
Cyanide, Total	Thailium	Dieldrin	X	Ethylbenzene
	Zinc	Endrin		Ethylene Dibromide
GROUP E		Heptachlor		Methylene Chloride
Phenois	GROUP G	Heptachlor Epoxide		Monomethyinapthalenez
	Acidity, Total	Lindane	X	Naphthaiene, Totai
GROUP F	Alkalinity, Total	Methoxychior	T	PAH
Aluminum	Alkalinity, Bicarbonate	Toxaphene		PCB:
Arsenic	Bromide	2,4-0		1,1,2,2Tetrachioroethane(P
Borium	Carbon Dioxide	2,4,5-TP-Silvex		1,1,1-Trichloroethane
Beryilium	Chloride	2,4,5-T		1,1,2 Trichloroethane
Boron	Color			1,1,2 Trichioroethylene (To
Cadmium	Fluoride	GROUP J		Trihalomethanes
Calcium	lodide	Sulfides		TOX
Chromium, Total	Odor		X	Toluene
Cobalt	Residue, Total	Asbestos		Vinyi Chioride
Copper	Residue, Filterable (TDS)	Ignitability	V	Xylenes, Total

RELINQUISHED BY RELINQUISHED BY RELINQUISHED BY 1. ON SITE ANALYSES 16:30 Turbidity (Time) (Time) (Signature) (Signeture) (Time) (Print Name) (Print Nama) (Print Name) (Deta) (Deta) Flow (Company) (Company) (Forsport) Chiorine, Total RECEIVED RECEIVED BY RECEIVED BY 2. Dissolved, Oxygen (Time) (Signature) (Time) (Signature) (Time) £1 88 (Print Name) (Print Name) (Dete) (Print Name) (Deta) (Dote) Temperature

COMMENTS/SPECIAL INSTRUCTIONS

Report Date:

01/03/89

Client: El Paso Natural Gas

Sample ID:

F88357

Date Sampled: 12/08/88

Laboratory Number: F2313

Analysis Requested: Purgable Aromatics

Date Received: 12/09/88
Date Extracted: NA

Sample Matrix:

Water

Date Analyzed: 12/19/88

	Parameter	Concentration		Units	
	BENZENE	1.1	(0.2)	ug/l	
	ETHYLBENZENE	ND	(0.2)	ug/l	
	TOLUENE	0.3	(0.2)	ug/l	
* _	m,p-XYLENE	ND	(0.2)	ug/l	
	O-XYLENE	ND	(0.2)	ug/l	
	NAPHTHALENE	ND	(1.0)	ug/l	

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982)

602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)

ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Jack M. Mozgan

Senior Organic Chemist

	EL PASO NAT ENVIRONMENT	URAL AL S.	GAS COMP ATA				
Facility No.	omple Matrix <u>water</u>	Sampl	e No. F8835	8	Time		4 Hr.
Sample Location Blance							
Sampling Site Description							
Date of Collection (MMDDYY)	1 2. 1 - 1		Collection Meth				
Sample Collected By				Pr	one _	325-28	41
Laboratory Conducting Analys							
	ANALYSIS REQUESTED				,		
GROUP A	Hardness		Residue, Nonfilterable	Ļ.,		GROUP T	
Ammonia	Iron	_	Residue, Settleable	X	Benze		
Chemical Oxygen Demand	Leod	+	Residue, Volatile			-a-pyrene	
Kjeldahi Nitrogen Nitrate	Magnesium	+	Silica	_	Brome		
Nitrite	Manganese	+	Sulfate	_		odichlorometha:	
Oil & Gregge	Mercury	+++	Suifite	-	Chlore	n Tetrachloride	
Organic Carbon	Molybdenum Nickel	+-+	Surfactants-MBAS	-		omethane	
Orthophosphate	Potossium	+-+	GROUP H			mochiorometha	
Phosphorus, Total	Selenium	+	BHC Isomers	-		ichloroethene	
, maphorus, rold:	Silver	+-+	Chlordane	-		ichioroethane	
GROUP D	Sodium	4	ODT lsomers			ichioroethylene	
Cyanide, Total	Thallium	+	Dieldrin	$\overline{\nabla}$		enzene	(, , ,
	Zinc		Endrin			ne Dibromide	
GROUP E			deptachlor			lene Chloride	
Phenois	GROUP G	+	teptachlor Epoxide			nethylnapthalen	68
	Acidity, Total	++	الرواب في الأول	X		halene, Total	
GROUP F	Alkalinity, Total	+-+	dethoxychior	\vdash	PAH	.,	
Aluminum	Alkalinity, Bicarbonate		oxaphene		PCB:		
Arsenic	Bromide	+	2.4-D	П	1,1,2.	2Tetrachioroeth	ane(PC
Barium	Carbon Dioxide	4	2,4,5-TP-Silvex			-Trichloroethan	
Beryllium	Chloride	11:	2.4.5-T		1,1,2	Trichloroethane	
Boron	Color	\sqcap			1,1,2	Trichioroethyler	ne (TCE
Cadmium	Fluoride		GROUP J		Tringi	omethanes	
Calcium	lodide		Sulfides		TOX		
Chromium, Total	Odor			X	Toluen		
Cobalt	Residue, Total		lebestos		Vinyl	Chloride	
Copper	Residue, Filterable (TDS)	1	gnitability	X	Xylene	s, Total	
OMMENTS/SPECIAL INSTRUCT	TONS						
RELINQUISHED BY 1. A. Punfasi 16:30	RELINQUISHED BY	2.	RELINQUISHED BY		3.	ON SITE AN	ALYSE
(Signature) (Time) A. Pundan 12/9/88	(Signeture) (Time)	(Signeture)		(Time)		
Print Name) (Date)	(Print Name) (Date)	(Print Name)		(Dete)	Flow	
(Company)	(Company)		(Company)			Chlorine, Total	,
RECEIVED BY 1.	RECEIVED BY	2.	RECEIVED BY		3.	Dissolved, Oxygen	,
(Signature) (Time)	1 •= •	Time)	(Signature)		(Time)	рН	
KON KIC LAYC/SON 124 81 (Print Name) (Date)		Dote)	(Print Name)		(Deta)		
(Print Name) (Date)	(rnnineme)		(crint name)		(Deta)	Temperature	

Report Date:

01/03/89

Client: El Paso Natural Gas

Sample ID:

F88358

Date Sampled: 12/08/88

Laboratory Number: F2314

Date Received: 12/09/88

Analysis Requested: Purgable Aromatics

Date Extracted: NA

Sample Matrix:

Water

Date Analyzed: 12/19/88

	Parameter	Concentration		Units
	BENZENE	ND	(0.2)	ug/l
	ETHYLBENZENE	ND	(0.2)	ug/l
	TOLUENE	0.4	(0.2)	ug/l
*	m,p-XYLENE	ND	(0.2)	ug/l
	o-XYLENE	ND	(0.2)	ug/l
	NAPHTHALENE	ND	(1.0)	ug/l

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.) ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Morgan

E1	DACA	NATURAL	-	001	15
FNVID	MMA	ENTAL S	LAMB	LIME	TATA
PIGAL		THE S			

	ENVIRONMENTA	IL SAM	PLING DATA				I
Facility No.	5011 a		हिल्लिशिट	a	.		
Poemty No.	on Cialify Trans	ambie	No. Feedbas	لك	lime	البالبالبال	24 Hr
Sample Location	# 2 COL	pa	THE TO PIPE	ine	_ Charg	6	
Sampling Site Description _	Ta on field		10+cs				
Date of Collection (MMDDYY)	[20588		Collection Meth	od	Ø Gr	ab Comp.	
Sample Collected By	1. Pundan			D		325-28	7-1
				-	ione _		
Laboratory Conducting Analys				,			
GROUP A	ANALYSIS REQUESTED			_	r	GROUP T	
Ammonia	Hardness Iron		eidue, Nonfliterable	-	8		
Chemical Oxygen Demand	Lead		sidue, Settleable	\times	Benze		
Kjeidahi Nitrogen	Magnesium		sidue, Volatile ica	-	Bromo	-a-pyrene	
Nitrate			lfate	-		dichlorometho	
Nitrite	Manganese Mercury		ifite	 		n Tetrachlorid	
Oil & Grease		1		├-			
	Molybdenum	120	rfactants-MBAS	-	Chloro		
Organic Carbon	Nickel		000//01/	-	311131	methane	
Orthophosphate	Potassium		GROUP H	-	0.0.0	nochlorometho	
Phosphorus, Total	Selenium		C Isomers	_		ichloroethene	
	Silver		lordane	_		ichioroethane	
GROUP D	Sodium		T Isomers	Ĺ.,		ichioroethylen	(1,1-
Cyanide, Total	Theilium		ldrin	\boxtimes		enzene	
	Zinc		drin			ne Dibromide	
GROUP E			ptachlor			ene Chioride	
Phenois	GROUP G	He	ptachlor Epoxide		Monor	ethylnapthaler	168
	Acidity, Total	Lin	dane	\times	Naphti	naiene, Totai	
GROUP F	Alkalinity, Total	Me	thoxychior		PAH		
Aluminum	Alkalinity, Bicarbonate	To	raphene		PCB.		
Arsenic	Bromide	2.4	-D		1,1,2,	2Tetrachioroeti	nane(Pi
Barium	Carbon Dloxide	2,4	.5-TP-Silvex		1,1,1-	Trichloroethan	6
Beryllium	Chloride	2,4	.5-T		1,1,2	Trichloroethan	•
Boron	Color				1,1,2	Trichioroethyle	ne (TC
Cadmium	Fluoride		GROUP J		Trihaic	methones	
Calcium	Iodide	Sul	fides		TOX		
Chromium, Total	Odor			X	Toluen	4	
Cobait	Residue, Total	Ast	estos		Vinyi (Chioride	
Copper	Residue, Filteroble (TDS)	Igr	itability	V	Xylene	s. Total	
COMMENTS/SPECIAL INSTRUC	TIONS						
RELINQUISHED BY 1. (J. Pundan 16:30 (Signature) (Time)	RELINQUISHED BY (Signeture) (TI		RELINQUISHED BY		3.	ON SITE A	NALYSE
A. Pundari 12/9/88 (Print Name) (Deta)			Print Name)		(Time)	Flow	
EPNG							
(Company)	(Company)		(Company)		•	Chlorine, Total	<u> </u>
MEGEIVED BY 1.	RECEIVED BY		RECEIVED BY			Dissolved, Oxyger	
(Signature) (Time) Konkir (Ard SON 1298)			Signature)		/0 -d = \	pH	
(Print Name) (Date)	(Print Name) (D	ote) (Print Name)		(Dets)	Temperature	<u></u>

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: F88359 Date Sampled: 12/05/88 Laboratory Number: F2315 Date Received: 12/09/88 Analysis Requested: Purgable Aromatics Date Extracte: 12/12/88 Sample Matrix: Soil Date Analyzed: 12/19/88

	Parameter	Concentration		Units
	BENZENE	ND	(0.5)	mg/kg
	ETHYLBENZENE	ND	(0.5)	mg/kg
	TOLUENE	ND	(0.5)	mg/kg
*	m,p-XYLENE	ND	(0.5)	mg/kg
	O-XYLENE	ND	(0.5)	mg/kg
	NAPHTHALENE	3.4	(0.5)	mg/kg

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40,CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)
ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Sack M. Morgan

EL	PASO	NATURAL	GAS	COMP.	. (1)
ENVIR	ONMI	INTAL S	AMP	LING	7	TA

Date of Collection (MMDDYY) TOTAL Date of Collection Method Grab Comp.	Sample Location Blance	Highd - was In	Pipeline Trence	h	_ Chara	6	
Date of Callection (MMDDYY) INC. Comp. Comp.							
Sample Callected By TAMY Free Phone 325-2751 Laboratory Canducting Analysis TAM L ANALYSIS RECUESTED (check appropriate blacks) GROUP A Hardiness Residue, Nonfliterable GROUP T Amanania Iron Residue, Volatile Benzone-pyrene (Keldoni Nitrogen Magnesium Silica Bromoform (Kildoni Nitrogen Magnese Sulfate Bromoformothane (Kildoni Nitrogen Magnese Sulfate Bromoformothane (Mitrite Marcury Sulfate Bromoformothane (Mitrite Grasse Molybdanum Surfactants-MBAS Chloroform (Organic Carbon Nickel Chloromethane (Chloromethane Ditromothane) (Organic Carbon Nickel Ditromothane (Floorine In-Joichiorosthane (EDC GROUP D Sadium BDT Isomers 1,1Dichiorosthane (EDC GROUP D Sadium DDT Isomers 1,1Dichiorosthane (EDC GROUP D Sadium DDT Isomers 1,1Dichiorosthane (EDC GROUP C Redrin Ethylene Dibromide (Chonide Thinillum Dichiorine Ethylene Dibromide (Flooride GROUP G Heptachior Epoxide Monomethylingsthalenes (Flooride GROUP G Heptachior Epoxide Monomethylingsthalenes (Flooride GROUP J Interiorosthane (FROUP F Alkelinity, Total Methocychior PAH (Aluminum Alkelinity, Total Methocychior PAH (Aluminum Chloride 2,4,5-TP-Silvex 1,1,1-Trichiorosthane (Barrium Color Goor Total Grassene Flooride Flooride Grassene Flooride Grassene Flooride Grassene Flooride Grassene Flooride Grassene Flooride Grassene Flooride Gras	Date of Collection (MMDDYY)	112101788	Collection Meth	nod	⊠ G	rab Comp	
ANALYSIS REQUESTED (check appropriate blocks) GROUP A Hordness Residue, Nonfilteroble GROUP T Ammonia Iron Residue, Settleable Benzoe-pyrene Kjeldeni Nitrogen Magnesium Silloa Bromeform Nitrote Menganese Suifeta Bromeform Organic Carbon Tetrachloride Oil & Graces Molybdenum Surfactonts-MBAS Chloraform Organic Carbon Nickel Group Holbinomethane Phosphorus, Total Selenium BRC Isomers 1,1-Dichloraethane (DCC GROUP D Sodium DDT Isomers 1,1-Dichloraethane (DCC GROUP D Sodium DDT Isomers 1,1-Dichloraethylene (CCC GROUP D Sodium DDT Isomers 1,1-Dichloraethylene (CCC GROUP E Reptachior Methods Suiferia Ethylene Chloride GROUP E Heptachior Methods Suiferia Ethylene Chloride GROUP E Heptachior Double Suiferia Ethylene Chloride GROUP F Alkelinity, Total Lindene GROUP F Alkelinity, Total Methodychior PAH Aluminum Alkelinity, Bicarbonate Toxophene PCBs Arsenic Bromide 2,4-5-T 1,1,2 Technoraethane Boron Color Surferia GROUP J Trihalomethane Commium Chloride GROUP J Trihalomethane Conditium Color Group J Trihalomethane Codemium Fluoride GROUP J Trihalomethane Codemium Color Toxophene PCBs Competers Residue, Filteroble (TDS) Ignitability Xylenes, Total Commenty-Special Instructions RELINGUISHED BY 1. Relinguished BY 2. RELINGUISHED BY 3. ON SITE ANALY (Film New July Sc. Competers) (Competers) Commenty) Claime. Commenty July Coloride Competers (Competers) (Competers) Claimes (Competers) Claimes (Competers) Competers) Claimes (Competers) Claimes (Com	Sample Collected By	immy Fire		. Ph	one _	325-284	- /
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Boron Color 1,1,2 Trichloroethylens (1) Cadmium Fivoride GROUP J Trihalomethanes Calcium Iodide Sulfides TOX Chromium, Total Odor X Toluene Cobalt Residue, Total Asbestos Vinyl Chloride Copper Residue, Filterable (TDS) Ignitability Xylenes, Total COMMENTS/SPECIAL INSTRUCTIONS RELINQUISHED BY 1. RELINQUISHED BY 2. RELINQUISHED BY S. ON SITE ANALY A Fundar 18:30 (Signeture) (Time) (Signeture) (Time) Five (Print Name) (Date) (Print Name) (Date) EARC (Company) (Company) (Company) Chlorine, Total Company (Company) (Company) (Company) Chlorine, Total Company (Time) (Signeture) (Time) Company (Company) (Company) Chlorine, Total Company (Time) (Signeture) (Time) Company (Company) (Company) Chlorine, Total Company (Time) (Signeture) (Time) Company (Time) (Time) (Time) Company (Time) (Time) (Time) Company (Time) (Time) (Time) Company (_			
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	(Signature), (Time) A. Pundan 12/9/14 (Print Name) (Date)	(Signature) (Tim (Print Name) (De	te) (Print Name)		(0 etc)	Flow	
The little and state that the A CAN	(Signature), (Time) A. Presidan 12/9/W (Print Name) (Date) EANG- (Company) RECEIVED BY 1.	(Signature) (Tim (Print Name) (De (Company) RECEIVED BY	(Company) 2. RECEIVED BY		(Deta)	Flow Chlorine, Total	

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: F88360 Date Sampled: 12/07/88 Laboratory Number: F2316 Date Received: 12/09/88 Analysis Requested: Purgable Aromatics Date Extracte: 12/12/88 Sample Matrix: Soil Date Analyzed: 12/19/88

Parameter	Concentration		Units
BENZENE	ND	(0.5)	mg/kg
ETHYLBENZENE	ND	(0.5)	mg/kg
TOLUENE	ND	(0.5)	mg/kg
m,p-XYLENE	ND	(0.5)	mg/kg
o-XYLENE	ND	(0.5)	mg/kg
NAPHTHALENE	ND	(0.5)	mg/k g

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)
ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Jack M. Morgan

EL	PASO	NATURAL	GAS	COMP	
ENVIR	DNMI	ENTAL S	RAMP	ING	TATA

ENVIRONMENTAL SAMPLING DATA								
Facility No. DDDDD Sample Matrix Soil Sample No. F3336/ Time DDD 24 Hr.								
Sample Location Blanco Field - In pipeline trench Charge Sampling Site Description #18 on field notes								
Sampling Site Description	#18 on fiel	d	notes					
	Date of Collection (MMDDYY) Date of Collection (MMDDYY) Date Comp. Collection Method Grab Comp.							
Sample Collected By	Jimmy Fine		• • • • • • • • • • • • • • • • • • • •	PI	hone	325-286	<i>- ,</i>	
Laboratory Conduction Analysis	· TM L			, <i>F</i> I	10119 -			
Laboratory Conducting Analys	ANALYSIS REQUESTED				· · · · · ·			
GROUP A	Hordness		Residue, Nonfilterable	_		GROUP T	 :	
Ammonia	Iron		Residue, Settleable	$\overline{\mathbf{x}}$	Benze	ne		
Chemical Oxygen Demand	Lead		Residue, Volatile	/ `		-a-pyrene		
Kjeldahi Nitrogen	Magnesium		Silica	1		oform		
Nitrate	Manganese	11:	Sulfate	\vdash	Brom	odichlorometha	n 6	
Nitrite	Mercury	113	Sulfite		Carbo	n Tetrachloride		
Oil & Grease	Molybdenum		Surfactants-MBAS		Chior	oform		
Organic Carbon	Nickel				Chlore	methane		
Orthophosphate	Potassium		GROUP H		Dibro	mochiorometha	ne	
Phosphorus, Total	Selenium	E	HC Isomers		1,1-0	ichloroethene	(DCE)	
	Silver		Chlordane		1,2-0	ichloroethane	(EDC)	
GROUP D	Sodium	1 1	DT Isomers		1,1-0	ichioroethylene	(1,1-	
Cyanide, Total	Thailium	1	Dieldrin	X	Ethylb	enzene		
	Zinc	E	ndrin		Ethyle	ne Dibromide		
GROUP E		1	ieptachior		Methy	lene Chioride		
Phenois	GROUP G	1	ieptachlor Epoxide		Monor	nethylnapthalen	68	
	Acidity, Total	I	indane	X	Napht	haiene, Totai		
GROUP F	Alkalinity, Total	1	lethoxychior		PAH			
Aluminum	Alkalinity, Bicarbonate	7	oxaphene		PCB:			
Arsenic	Bromide	1	2,4-D		1,1,2,	2Tetrachioroeth	ane(PC	
Barium	Carbon Dloxide	2	2,4,5-TP-Silvex		1,1,1-	-Trichloroethan	6	
Beryllium	Chloride	1 2	2.4.5-T		1,1,2	Trichloroethone	·	
Boron	Color				1,1,2	Trichloroethyle	ne (TCE	
Codmium	Fluoride		GROUP J		Trihal	omethanes		
Calcium	lodide	<u> </u>	uifides		TOX			
Chromium, Total	Odor			X	Toluer	16		
Cobait	Residue, Total	1	lebestos		Vinyl	Chloride		
Copper	Residue, Filterable (TDS)) [1	gnitability	X	Xylene	s, Total		
COMMENTS/SPECIAL INSTRUCTIONS								
COMMENTS/SPECIAL INSTRUCT	10NS							
								
						_		
RELINQUISHED BY 1.	RELINQUISHED BY	2.	RELINQUISHED BY		3.	ON SITE A	MALYSES	
(Signoture) (Time)	(Signature) (Time)	(Signature)		(Time)	Turbidity	T	
A. Pundari 12/9/88	(0.000)	,,,,,,,			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
(Print Name) (Date)	(Print Name)	(Dete)	(Print Name)		(Dete)	Flow		
(Company)	(Company)		(Company)			Chlorine, Total	· ·	
RECEIVED BY 1.	RECEIVED BY	2.	RECEIVED BY		3.	Dissolved, Oxygen	m	
(Signsture) (Time)	(Signature) (Time)	(Signature)		(Time)			
RONKCHAYOSON & 9 88			,		· · · · · · · ·	рН	u	
(Print Name) (Deta)		(Dote)	(Print Name)		(Dets)	Temperature		

Report Date: 01/03/89

Client: El Paso Natural Gas

Sample ID: F88361 Date Sampled: 12/07/88 Laboratory Number: F2317 Date Received: 12/09/88 Analysis Requested: Purgable Aromatics Date Extracte: 12/12/88 Sample Matrix: Soil Date Analyzed: 12/19/88

	Parameter	er Concentratio		Units
	BENZENE	ND	(0.5)	mg/kg
	ETHYLBENZENE	ND	(0.5)	mg/kg
	TOLUENE	ND	(0.5)	mg/kg
*	m,p-XYLENE	ND	(0.5)	mg/kg
	O-XYLENE	ND	(0.5)	mg/kg
	NAPHTHALENE	ND	(0.5)	mg/kg

Method: 8020 Aromatic Volatile Organics, SW-846, USEPA (1982) 602 Purgable Aromatics, 40 CFR Part 136, USEPA (1984)

(Detection limit in parenthesis.)

ND - Parameter not detected at the stated detection limit.

* Meta and para xylene coelute on the capilary system.

Back M. Morgan

BLANCO FIELD GROUNDWATER QUALITY EVALUATION

TABULATED ANALYTICAL RESULTS

El Paso Natural Gas Co. January 30,1989 F88353 F88354 F88355 F88356 F88357 F88358 F88359 F88360 F88361

* Concentra: ND: Parameter NOTE: This gr



BLANCO FIELD GROUNDWATER QUALITY EVALUATION

TANK INTEGRITY TEST RESULTS

El Paso Natural Gas Co. January 30, 1989

SAN JUAN ENGINEERS

2101 SAN JUAN BOULEVARD

FARMINGTON, NEW MEXICO 87401

TELEPHONE, 505-325-7539

December 30. 1988

El Paso Natural Gas P. O. Box 4990 Farmington, NM 87499

72861

ATTN: Anu Pundari

Dear Ms. Pundari:

Enclosed are the tank integrity testing results for two fuel tanks located at your Blanco field installation. Both tanks were tested with water and had an indicated leak rate of less than 0.05 gph. The tanks that were tested are as follows:

Location	<u>Contents</u>	Volume	Registry No.
Blanco Camp	Gasoline	2,000 gal	EPNG 5206-1
Blanco Camp	Diesel	1,000 gal	EPNG 5206-2

I understand that both these tanks are scheduled for removal.

During the test 1 discovered what I believe to be a leak in the fill neck of the gasoline tank (EPNG 5206-1). I do not believe this leak would be of significant environmental concern since the tank tested as tight, and fuel does not normally stand in the filler neck. However, I would recommend that during demolition an inspection by a qualified person be made to determine the historical leakage, if any. This inspection would consist of looking for discolored soil and perhaps sampling.

If any questions remain on this matter, please call me.

Very truly yours,

SAN JUAN ENGINEZERS

Robert B. Stannard, Jr., P.E.

Vice President

RBS/ig Enclosures



AINLAY TANK 'TEGRITY TESTER' FIELD TEST DATA

	AUTENT IN	1. 1.2011111		1220 12	OIDAIA				
1 TANK OPERATOR	NAME El Paso Natura	ADDRESS al Gas, P. O. Ec	ox 4990, Far	mineton, l	рно NM 87499				
2	IDENTIFICATION			252 575	F. 51555				
2	IDENTIFICATION	CAPACITY—GALS			EL FIBRGLS known	AGE-YRS			
TANKS TO	5206-1 5206-2	1,000	Unknown Unknown		known known	20-			
BE TESTED	3200-2	1,000	CIIKIIOWII		RHOW1.				
32 .23.23									
						1			
3 WATER TABLE	DISTANCE FROM GRADE TO WATER N/A INS. No groundwater detected.								
4	TANK WILL BE FILLE	ED (TIME) ON		_Filled 3	6 hours pri	or to arrival			
TANK		OUCT AVAILABLE FROM			water.				
FILL-UP	FILL UP TO BE ARRA	NGED BY MR.			PHONE (,			
	CONTACT AT STORA	GE TERMINAL IS MR			PHONE (i			
5 OUTSIDE	NAME ADDRESS PHONE None								
CONTRACTORS									
6	NAME	AUTHORITY			PHO	NE			
OFFICIALS	Jimmy Fine	EPNG			325-284	<u> </u>			
TO BE	Anu Pundari	EPNG			325-284	1			
CONTACTED									
SPECIAL NOTES OR PRECAUTIONS	TANK TESTED	WITH WATER.							
8		PERFORMED IN AC IK. CRITERIA FOR TH ETIN. N.F.P.A. 329.							
TEST	TAN	K IDENT	TANK IS TIGHT	TANK IS NOT TIGHT	LEAK RATE	TEST DATE			
RESULTS	5206-1		XX		.00	12/9/88			
	5206-2		XX		.01	12/6/88			
9		AT THE TANKS DESCRIENT THE TRUE STATE OF		THIS DATE TO	O THE BEST OF	MY KNOWLEDGE			
	11	, ,	1	CERTI	FICATE NO	260			
CERTIFICATION	SIGNED_	y A mas	tea		DATE	28/88			
	FOR (TEST COMPAN	Yı San Juan	Engineers						
	ADDRESS		Juan Blvd.						
		Farmingt	on, NM 8740						
P	STATE ZIP								

AINLAY TANK TIGHTNESS TEST No. 1

10	INC	LUDE ENC	DUGH INFO	TC ACCU	RATELY ID	ENTIFY T	ANK (NUMB	ER CONTE	NTS POS.	TION, ETC		
TANK I.D.							FILL PIPE L				INS	
11 WATER IN TANK	(5) \$	START WA	TER IN TAN	vk 0 vk 2,(ith wate	000	INS GALS	(d) END WA	TEP IN TAN	NK 2.00	0	INS	
12 PRODUCT VOLUME	₹ D + .	ACTUAL C	CAPACITY APACITY NK CHART:	<u>N</u>	000 / A	GALS GALS	(c) DEDUCT	NATER IN PRODUCT V	TANK	N/A 2,000	GALS GALS	
13 FILL PIPE EXTENSION	(b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	DENSITY O DENSITY O ADDITIONA TE: AVOID PO	OF TANK P OF EXTERN AL HEAD F SSIBLE TA	RODUCT IAL WATER REQUIRED	SE THE AD		= N/ = = 0.036 = (n: x 0.1 (w:	(w) L 5 (.B/CU IN (_B/CU, IN 			
14 PRELIM TEST DATA	(a) \$ (b) ! (c)]	START TEN END TE TIME SINC	AP CHECK MP CHECK E LAST LIC	9:40 11:00 ADDED _	AM/P AM/P HF	MAX MAX RS	(d) A.P.I. GF (e) A.P.I. GF (f) COEFF.	RAVITY RAVITY OF EXPAN	N/A N/A sion00	_ ATN/ _ AT 60°F)004887	<u>/A</u> •F	
15 TEST	(a) START TEST 11:10 AM/PM END TEST 12:30 XM/PM: TEST TIME 80 MINS. T TIME TEMP TEMP WTD TIME TEMP TEMP WTD							WTD				
DATA		11:10	1 49.9483	TEMP 2 49.9844				TEMP 1	TEMP 2	TEMP 3	AVG	
		12:30	49.9191	49.9806	51.1749	950.266	1					
i												
	ł						<u> </u>					
	(b) TOTAL TEMP. CHANGE (AVG END TEMP. — AVG START TEMP.) = $50.2661 - 50.2778 =0117$ (c) VOL. CHANGE DUE TO TEMP = PRODUCT VOL × TEMP. CHANGE × COEFF. EXP. = 2.000×0117 (c) $\times .00004887 \times .00004887$ (141) = $0011 \times .00004887$ (141)								F.			
	(e) \	VOL. CHAN	IGE NOT D	UE TO TEMP	P [(c) + (d)]			11 + _	.006)6 GAL)49 GAL	1 1
	(f)											
		(f) LEAK RATE = (e) × 60 = .0049 × 60 = .00 G.P.H. TIME OF TEST (MINS) = 80 (158) THIS LEAK RATE DOES/DOES NOT EXCEED THE STANDARD OF 0.050 G.P.H. DESCRIBED IN NATIONAL FIRE PROTECTION ASSOC BULLETIN N.F.P.A. 329.										

THE TANK IS TIGHT oxtimes / THE TANK IS NOT TIGHT oxtimes

AINLAY TANK TIGHTNESS TEST No. 2

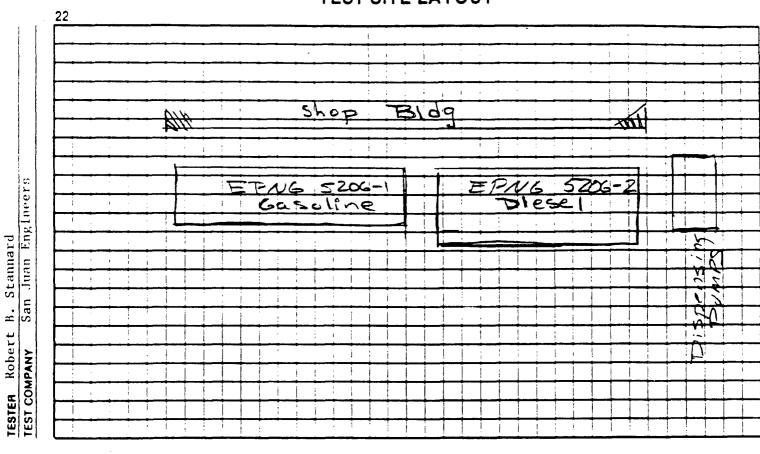
16	INC	LUDE EN	OUGH INFO	TO ACCU	RATELY ID	ENTIFY TA	NK. (NUMB	ER/CONTE	NTS: POSI	TION, ETC.	
TANK I.D.			TER4								INS
17 WATER IN TANK			TER IN TAN		,000	INS	(c) END WA	TER IN TAN	1K	1,000	INS
18 PRODUCT VOLUME	(a) (b)	TANK TE NOMINAL ACTUAL C	ESTED WI	TH WATER 1,00 N/A	₹					N/A 1,000	
FILL PIPE EXTENSION	(b) (c) NO TO	DENSITY (DENSITY (ADDITION TE: AVOID PO	OF WATER TO OF TANK POOF EXTERN AL HEAD ROUSSIBLE TAS.I. AT THE	RODUCT AL WATER EQUIRED NK DAMAG	SE THE AD	:	0.03 (h) x 0.1 (w)	(w) L 6 L 036 =	B/CU. IN. B/CU. IN × 0.036		IN
PRELIM TEST DATA	(a) (b) (c)	START TE END TE TIME SINC	MP CHECK EMP CHECK CE LAST LIQ	10:10 11:45 ADDED _	AM/F AM/F HI	PAX PAX RS	(d) A.P.I. GI (e) A.P.I. GI (f) COEFF.	RAVITY RAVITY OF EXPANS	Y/A Y/A SION0	AT N/A AT 60°F 0004887	•F
21 TEST	(a)	START TE	,	·	·	st12:55	AN /PI	M: TEST TIN	AE <u>65</u>	MINS.	
TEST DATA		TIME	TEMP 1	2	3	AVG	TIME	TEMP 1	TEMP 2	TEMP 3	WTD AVG
			50.2986 50.2749	1	1_	, ,	1				
						ļ					
						<u> </u>					
	l		MP. CHANG	O TEMP =	PRODUCT	VOL × TE	MP. CHANG	GE × COEF	F. EXP.		0042 •F
	1										GALS
		LEAK RAT	TE =	(e) x e ME OF TEST DOES DOE	E (MINS) S NOT EX	=65 CEED THE	$\frac{1 \times 60}{2.3} =$ STANDARD	.01	G.P.H		1 GALS
	THE TANK IS TIGHT 区 / THE TANK IS NOT TIGHT □										

TESTER Robert B. Stannard

88 /

108

TEST SITE LAYOUT



Stannard

DATE 12 /689 / 88

5206-1 ₺

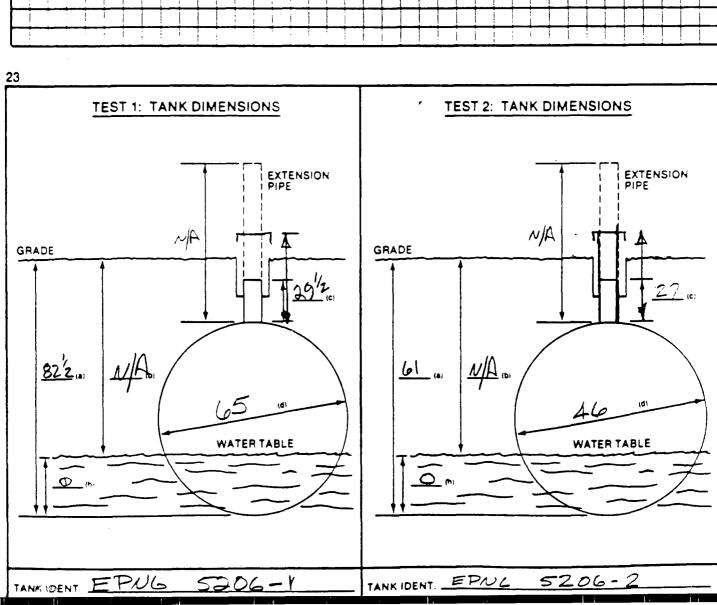
Tanks

Diesel

ح Gas

Blanco Camp

OB DORESS





P. O. BOX 1492 EL PASO, TEXAS 79978 PHONE: 915-541-2600

February 17, 1989

Mr. David Boyer, Chief Environmental Bureau Energy and Mineral Department New Mexico Oil Conservation Division 310 Old Santa Fe Trail, 206 Sante Fe, New Mexico 87504

Reference: Underground Storage Tanks

at Blanco Field and Kutz Field

Dear Mr. Boyer:

During our meeting in your offices yesterday, you inquired about the situation with the referenced tanks. I am enclosing copies of the information sent to Ms. Helen Shumway at the New Mexico Environmental Improvement Division.

If you have questions, please contact me at 915/541-2832.

Very truly yours,

Senior Environmental Engineer

Environmental and Safety Affairs Department

HV:cds

Enclosures

cc: Helen Shumway, NMEID

File: 5206 h/w 5216 h/w



P. O. BOX 1492 EL PASO, TEXAS 79978 PHONE: 915-541-2600

FEDERAL EXPRESS

January 25, 1989

Ms. Helen Shumway Underground Storage Tank Section New Mexico Environmental Improvement Division 1190 St. Francis Drive Santa Fe, NM 87503

Reference: Kutz Field at Aztec, New Mexico

Underground Storage Tank

Dear Ms. Shumway:

Enclosed are copies of the tank integrity test results that San Juan Engineering sent to Ms. Anu Pundari, our compliance engineer in Farmington.

We indicated to Mr. Bruce Frederick in our letter of December 8, 1988, that we thought the problem with the 8,000 gallon unleaded gasoline tank (EPNG #5216-2) was the filler pipe. This was confirmed. The gasoline tank passed the integrity test after the filler pipe was replaced and the suction line and vent pipe were repaired. Also Tank No. 5216-3 was tested. This tank contains diesel and passed the integrity test. While Tank No. 5216-3 did not have problems, the integrity test was done as a safety measure.

If you have questions, please contact me at 915/541-2832.

Very truly yours,

Henry Van, Philp., C.E.P.

Senior Environmental Engineer

Environmental and Safety Affairs Department

HV:cds

Enclosure

cc: K. E. Beasley

A. N. Pundari

KUTZ FIELD AT AZTEC, NEW MEXICO

UNDERGROUND STORAGE TANKS INTEGRITY TESTS

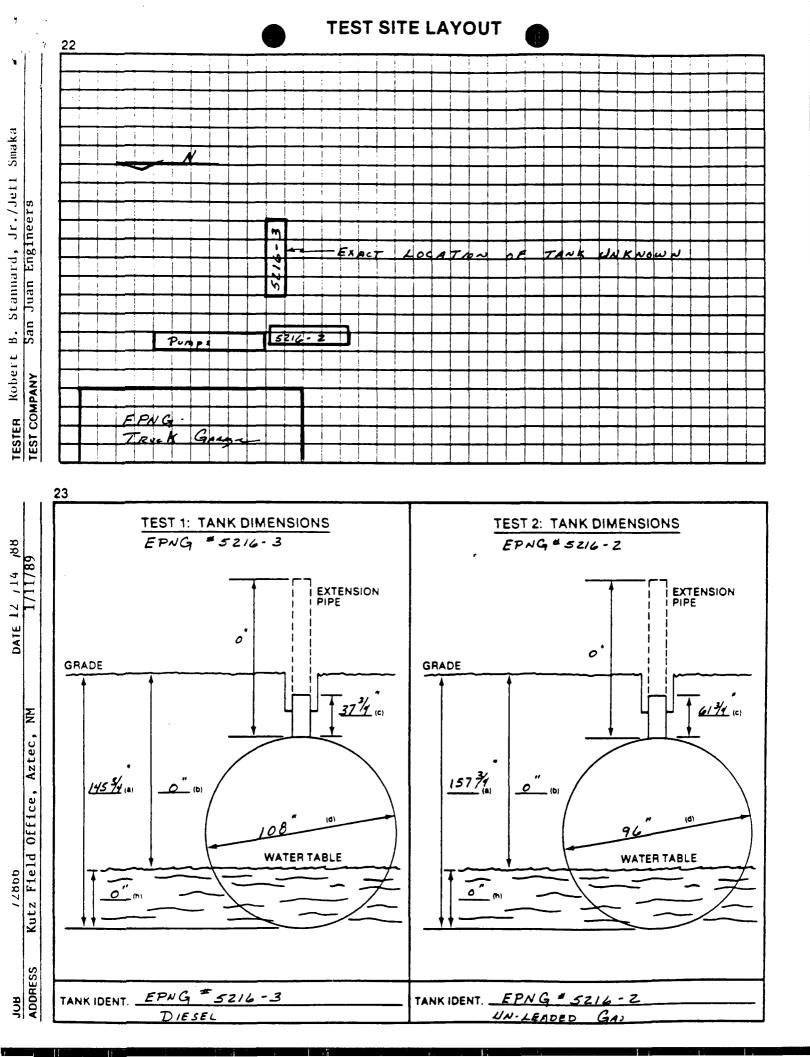
El Paso Natural Gas Co. January 25, 1989

10 TANK I.D.	INCLUDE EN											
	TANK DIAME	TER	108		INS	FILL PIPE	LENGTH _	37 3/	4	INS		
MATER IN TANK	(a) START WA	ATER IN TA	nk0		INS GALS	(c) END WA	TER IN TAI	NK	0	INS GALS		
12 PRODUCT VOLUME	(a) NOMINAL CAPACITY 10,000 GALS (c) DEDUCT WATER IN TANK 0 GALS (b) ACTUAL CAPACITY 9,900 GALS (d) TOTAL PRODUCT VOL. 9,900 GALS (FROM TANK CHART)								<u> </u>			
13 FILL PIPE EXTENSION	(b) DENSITY DENSITY (c) ADDITION NOTE: TO AVOID PO	(a) HEIGHT OF WATER TABLE ABOVE TANK BOTTOM = 0 (h) INS (b) DENSITY OF TANK PRODUCT = (w) LB/CU. IN. (FROM TABLES) DENSITY OF EXTERNAL WATER = 0.036 LB/CU. IN. (c) ADDITIONAL HEAD REQUIRED = (h) x 0.036 x 0.036 = INS NOTE: TO AVOID POSSIBLE TANK DAMAGE THE ADDED PRESSURE FROM A FILL PIPE EXTENSION MUST NEVER EXCEED 5 P.S.I. AT THE WATER LEVEL.										
PRELIM TEST DATA	(b) END TE	(a) START TEMP CHECK 9:00 AM/## (d) A.P.I. GRAVITY 36.2 AT 70 °F (b) END TEMP CHECK 12:55 XX/PM (e) A.P.I. GRAVITY 35.4 AT 60°F (c) TIME SINCE LAST LIQ. ADDED 12 HRS (f) COEFF. OF EXPANSION 0.00046368										
15	(a) START TE	ST 12:5	5 XM/P	M: END TE	st <u>2:00</u>	XX /PI	M: TEST TII	ME65	MINS.			
TEST DATA	TIME	TEMP 1	2	TEMP 3	WTD. AVG.	TIME	TEMP 1	TEMP 2	TEMP 3	WTD. AVG.]	
	12:55		65.759 <i>6</i> 765.6822		1						1	
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		1					65 710		772 -	. 067]	
(b) TOTAL TEMP. CHANGE (AVG END TEMP. — AVG START TEMP.) = $\frac{65.7104 - 65.7773}{65.7773} = \frac{110.067}{100.0000}$ (c) VOL CHANGE DUE TO TEMP = PRODUCT VOL × TEMP. CHANGE × COEFF. EXP. = $\frac{9.900(12d)}{100.0000} \times \frac{100.0000}{100.0000} \times 100.0$												
	(d) TOTAL LIC	OUID VOL	ADDED/SUB	TRACTED A	T END OF	TEST			= + /x . 28	8 GAI	LS.	
	(e) VOL CHA	NGE NOT	DUE TO TEM	P [(c) + (d)]		= <u>31</u>	<u> </u>	28	= ** / 03		LS.	
	(f) LEAK RATE = $\frac{\text{(e)} \times \text{so}}{\text{TIME OF TEST (MINS)}} = \frac{03 \times \text{so}}{65} = \frac{03}{65} \text{ G.P.H.}$											
	THIS L	TIME OF TEST (MINS) 65 (158) THIS LEAK RATE DOES/DOES NOT EXCEED THE STANDARD OF 0.050 G.P.H. DESCRIBED IN NATIONAL FIRE PROTECTION ASSOC., BULLETIN N.F.P.A. 329.										
	THE TANK IS TIGHT 🖾 / THE TANK IS NOT TIGHT 🗆											

DATE 12 /14 /88

TESTER Robert B. Stannard, Jr.

	16 TANK I.D.	INCLUDE	ENO	UGH INFO	. TO ACCU	RATELY ID	ENTIFY TA	NK. (NUMB	ER/CONTE	NTS/POSI	TION, ETC.)	
		TANK DIA	MET	ER	96		INS	FILL PIPE L	ENGTH _	61 3/	4	INS
	17 WATER IN TANK	1		TER IN TAN	,			(c) END WA				INS
	18 PRODUCT VOLUME			CAPACITY APACITY IK CHART)			GALS GALS	(c) DEDUCT	WATER IN	TANK 7	0 ,890	GALS
Engineer	FILL PIPE EXTENSION	(b) DENS DENS (c) ADDIT NOTE: TO AVOI	ITY O	OF TANK PI OF EXTERN AL HEAD R SSIBLE TA	RODUCT AL WATER EQUIRED	SE THE ADI	:	= 0 = 0.036 = (h) x 0.0 (w) SURE FROM	(w) L 036	.B/CU. IN. LB/CU. IN. × 0.036	<u> </u>	IN
Jeff Smaka NY San Juan	20 PRELIM TEST DATA	(b) END	TE	MP CHECK	1:30	ANX/P	M	(d) A.P.I. GF (e) A.P.I. GF (f) COEFF.	RAVITY	62.4	_ AT 60 F	
ER Je COMPANY	21	(a) STAR	T TES	st <u>1:30</u>	XX I/PI	M: END TES	ST2:4	0XX/P	M: TEST TI	ME _70	MINS	
TESTER TEST CO	TEST DATA	12.		TEMP 1	TEMP 2 45.1146	TEMP 3	WTD. AVG.	TIME	TEMP 1	TEMP 2	TEMP 3	WTD. AVG.
==		l —			45.1348		<u> </u>					
83												
								 				
NM 1								<u> </u>				
DATE 1 Aztec,												
•												
Field Office	:											
1d 0	ľ							 				
Fie								<u> </u>				
JOB 72866 ADDRESS Kutz		(c) VOL	(b) TOTAL TEMP. CHANGE (AVG END TEMP. — AVG START TEMP.) = $\frac{44.7921}{44.7833} = \frac{44.7833}{44.7833} = 44.$)5 GALS.			
JOB ADD						P ((c) + (d))		=05	<u> </u>	08	= >+ / (GALS.
		1		TIN	(e) × 6 ME OF TEST DOES/DOE	(M1142)	, •	× 60 = .				NATIONAL
				ROTECTION	N ASSOC	BULLETIN	N.F.P.A. 32				_	





AINLAY TANK 'TEGRITY TESTER™ FIELD TEST DATA

1	NAME	ADDRESS						
TANK	NAME ADDRESS PHONE El Paso Natural Gas, Kutz Field Office, Aztec, NM 87410 (505) 334-7595							
OPERATOR								
OPERATOR								
2	IDENTIFICATION	CAPACITY-GALS.	MANUFACTU	RER STE	EL/FIBRGLS.	AGE-YRS.		
	EPNG 5216-3	10,000		eel	25+			
TANKS TO			and Stee.					
BE TESTED	EPNG 5216-2	8,000	11		11	25+		

3 WATER TABLE	DISTANCE FROM GR	ADE TO WATER)INS.					
4	TANK WILL BE FILLE	D (TIME) ON	1 / 10 / 8	9				
TANK	1	UCT AVAILABLE FROM						
FILL-UP	FILL UP TO BE ARRAI	NGED BY MR.	Bob Sammo	ons	PHONE (5	05) 334-7595		
r ice-or	l .	GE TERMINAL IS MR	N7 / A		PHONE ()		
								
5	NAME	ADDRESS			PH	ONE		
OUTSIDE	None							
CONTRACTORS								
6	NAME	AUTHORITY			0.11			
OFFICIALS	NAME AUTHORITY PHONE Neal Johnson EPNG 334-7595							
TO BE	Bob Sammons	EPNG			334-7			
CONTACTED								
			,					
7								
SPECIAL								
NOTES OR								
PRECAUTIONS	i							
FALCACIONS								
								
8		PERFORMED IN ACT						
	ASSOCIATION BULLI		3H NE35 15 E	SIABLISHED	BI NATIONAL	TIME THOTEOMOR		
TEST	TANI	K IDENT	TANK IS TIGHT	TANK IS NOT TIGHT	LEAK RATE G. P. H.	TEST DATE		
RESULTS	EPNG 5216-3		XX		.03	12/14/88		
	EPNG 5216-2		XX		.03	1/11/89		
					<u> </u>			
9	THIS CERTIFIES THA	T THE TANKS DESCRIE IT THE TRUE STATE OF	ED WERE TEST	ED BY THE UN	DERSIGNED AN	D THAT THE STATED		
	RESULTS REPRESEN	IT THE THUE STATE OF	THE TANKS OF	Y INIS DATE	O THE BEST O	F MIT KNOWEEDGE.		
	1			CERT	IFICATE NO.	.260		
CERTIFICATION	1 1/2	1.5.6		CERT	DATE	2/89		
CENTIFICATION	SIGNED	7		15501	UMIC			
	FOR (TEST COMPAN'							
	ADDRESS	2101 San Ju						
	1	Farmington	, NM 87401	TE	ZIP			

ST 8 (MEV 2/87)





MEMORANDUM OF MEETING OR CONVERSATION

			M 7 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
Telephone Personal	Time 2/3	OPM	Date 12/16/38
Originating Party			Other Parties
Henry Van Ke	n Reasley		DOIS ROYER-OCS
(EPNE)	7		√
Subject UST Leabs	Arter	& R	Cany
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Discussion Then callot	1 to res	5021	To similar look
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Antos Field	11011	211	Willingertient
Jan Shill	nemal	X U	ST Wene To USA
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In Par 2 m 2.	Pin Sh	200	D. Hower of
Diane the	£ 118 To	To sail	be exteller is
Co. b. to	e la acce	s Del	Storent branch We
eany we			July July 19
Conclusions or Agreements			
istribution EPNG 1157	Sig	gned	HH Boys
		`	

El Paso Natural Gas Company P. O. BOX 1492 EL PASO, TEXAS 79978 PHONE: 915-541-2600

December 13, 1988

Helen Shumway Environmental Improvement Division Underground Storage Tank Section 1190 Saint Francis Drive Santa Fe, New Mexico 87503

Subject: Blanco Field Underground Storage Tanks

Dear Ms. Shumway:

The following is a chronology of events which occurred at El Paso Natural Gas Company's Blanco Field Office located in Blanco, New Mexico while investigating possible hydrocarbon contamination.

December 1, 1988

- Field discovered hydrocarbons odors and a sheen in pipeline trench while excavating for new pipeline
- Took samples of water from pipeline trench
- Checked for indications of leakage from pipeline
- Immediately asked Field Office to empty out diesel and gasoline tanks

December 2, 1988

- Both diesel and gasoline tanks were emptied and filled with water in preparation for tank integrity test but equipment for test was not available until December 6, 1988.
- Contacted New Mexico Oil Conservation Division in Aztec

December 5, 1988

- Began excavating area and taking samples in order to roughly delineate extent of contamination
- Contacted New Mexico Oil Conservation Division in Santa Fe

December 6, 1988

 Contractor tested diesel tank and stated that it was not leaking

- Contractor filled the neck of gasoline tank with water and prepared for test. Water level was going down too fast for the sensitive test equipment.
- Contacted New Mexico Oil Conservation Division in Santa Fe and provided them with status of situation

December 7, 1988

- Contacted New Mexico Environmental Improvement Division in Santa Fe to report findings

December 8, 1988

- Measured level of water in gasoline tank and it stabilized at 29 inches from the top of the fill pipe neck. The weld between the tank and neck is at around 30 inches from the top.
- Continued taking groundwater samples to roughly delineate extent of contamination

December 9, 1988

 Contractor tested gasoline tank and stated that it was not leaking

After EPNG obtains results from the groundwater investigation, we will then forward the information to your office. We plan to abandon these tanks and will send the required closure plan as soon as possible.

Since the neck of the gasoline tank is never completely filled with gasoline and it is used only for filling, we do not expect significant amounts of contaminated soil, if any , upon excavation of the tank.

If there are any further questions, please contact me at (505) 325-2841 Ext. 2176.

a. N. Pundari

ANP/jlm

xc: D. Boyer - NMOCD, Santa Fe

F. Chavez - NMOCD, Aztec



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 875G4 (505) 827-5800

October 19, 1988

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Kenneth E. Beasley North Region Compliance Engineer El Paso Natural Gas Company P. O. Box 1492 El Paso, Texas 7998

Re: Wash Rack Discharge at EPNG Blanco Field Camp.

Dear Mr. Beasley:

On October 7, the Oil Conservation Division (OCD) received your Notice of Intent, dated August 26, 1988, requesting authorization to discharge up to 750 gpd of vehicle wash water to an unlined pit at the EPNG Blanco Field Camp. The pit will be located in the NW/4 NE/4 of Section 8, T29N, R4W.

The Notice of Intent was submitted pursuant to Water Quality Control Commission (WQCC) Regulation 3-106.B, and the discharge is hereby allowed.

Pursuant to WQCC Regulation 3-105.A, a formal discharge plan will not be required as long as the discharge is consistent with the Notice of Intent, and the wastewater sampled at the Blanco wash rack by the OCD on August 5, 1987, conforms to the requirements of this regulation. Any changes in the quality or quantity of discharge may require EPNG submission of a discharge plan application.

In addition, all water discharged from the wash rack must be retained in the pit with adequate freeboard to prevent overtopping of the berm. No fluid will be allowed to be discharged on the surface in any manner so that it can enter a watercourse. If such surface discharges occur, they will subject EPNG to State and Federal surface water discharge regulations, including NPDES requirements under the Clean Water Act.

Please be advised that authorization of this discharge does not relieve you of liability should the operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

Mr. Kenneth Beas October 19, 1988 Page 2

If there are any questions, please call Jami Bailey at (505) 827-5884.

Sincerely,

David G. Boyer, Hydrogeologist Environmental Bureau Chief

DGB/JB/sl

cc: OCD - Aztec



P. O. BOX 1492 EL PASO, TEXAS 79978 PHONE: 915-541-2600

August 26, 1988

Mr. David G. Boyer Environmental Bureau Chief Energy and Minerals Department New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501-2088

Dear Mr. Boyer:

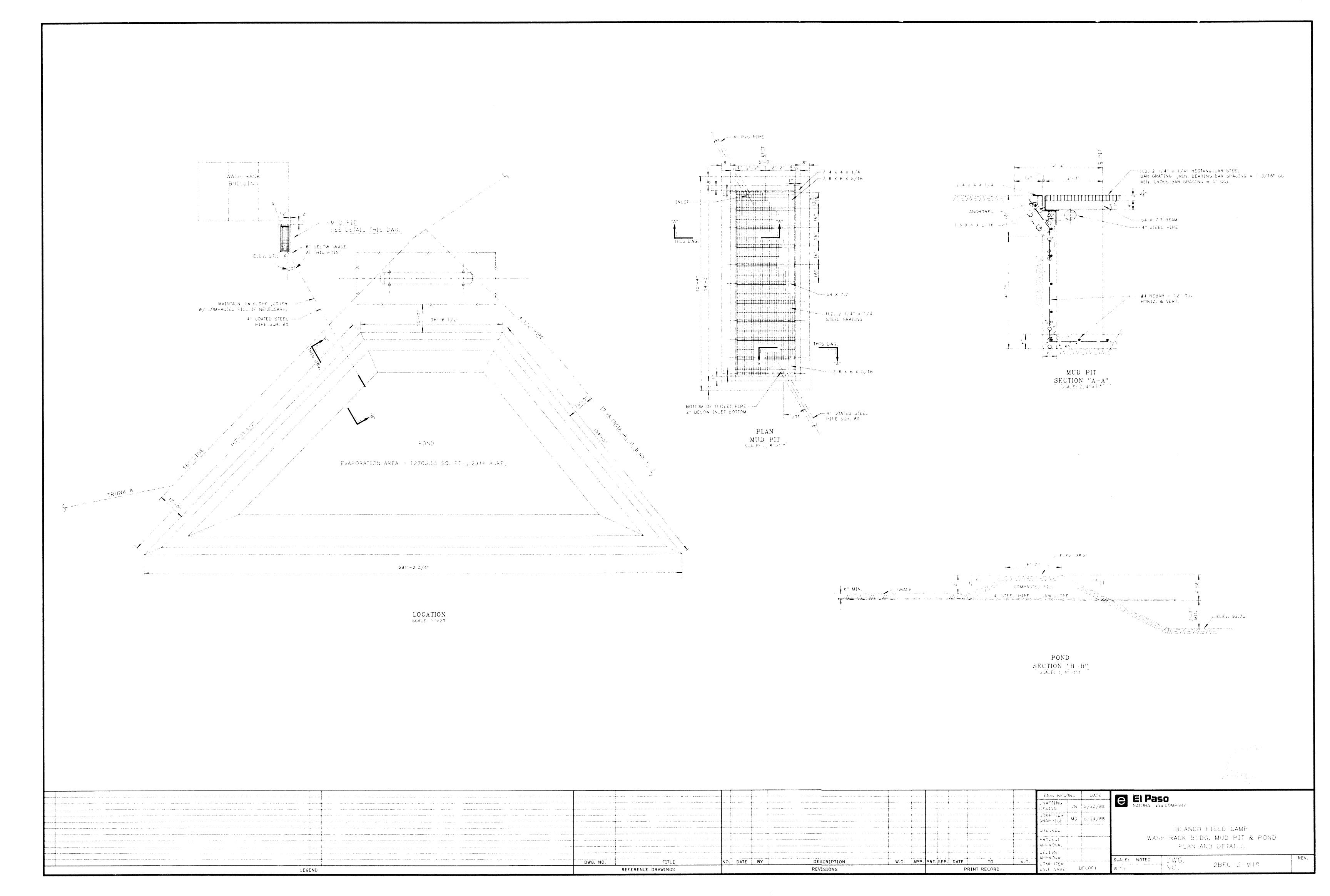
Attached is a Notice of Intent to discharge for the vehicle wash rack discharge at El Paso Natural Gas Company's Blanco Field Camp. The discharge is essentially seasonal since the majority of the activity takes place during the cool months of the year. Samples of the discharge have been taken by your staff. Your cooperation in processing this application is appreciated.

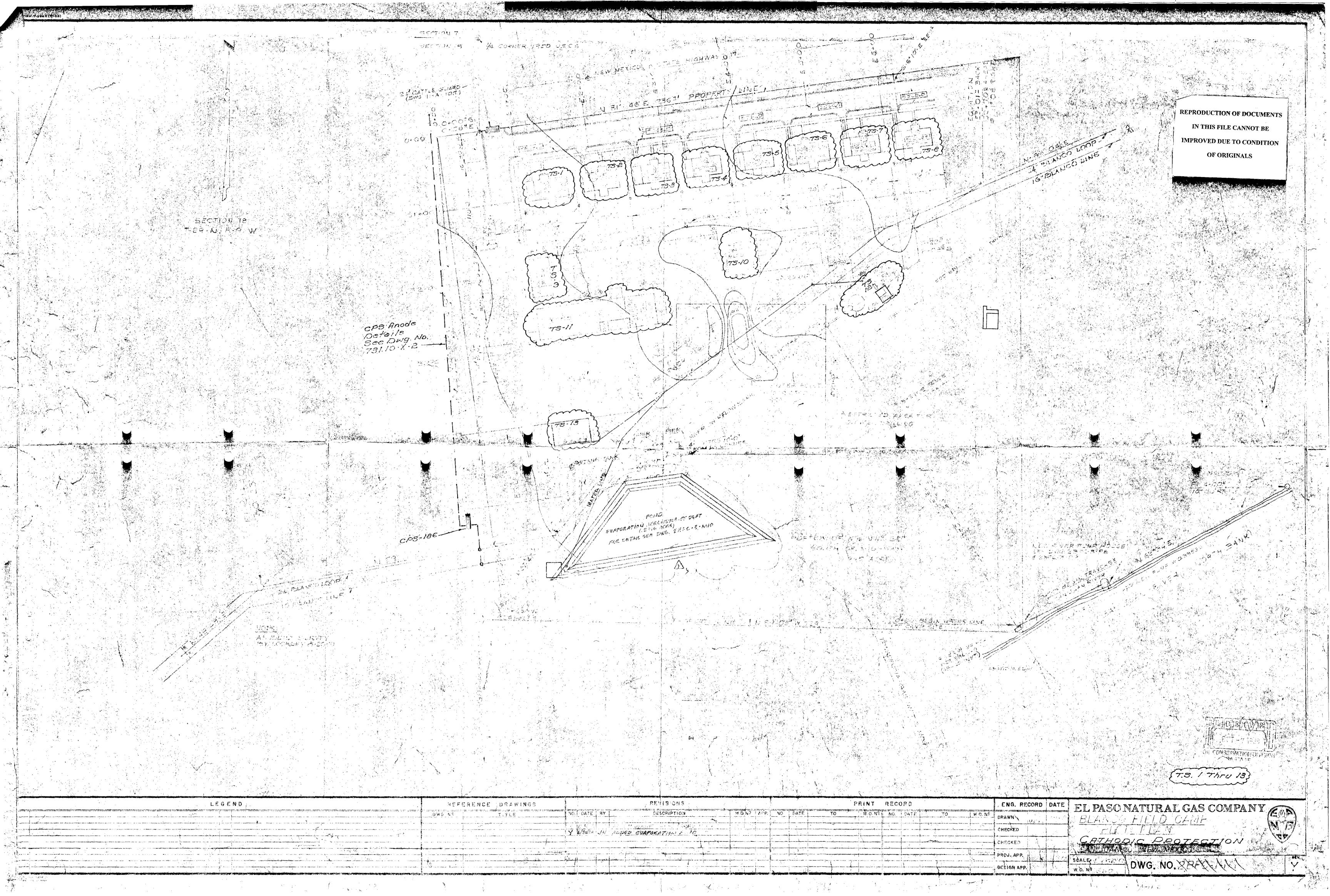
Sincerely Yours,

Kenneth E. Beasley Manager, North Region Compliance Engineering

FORENCIENTA AND THE COMPANY OF THE C

ı.	Name and address of the person making the discharge.
	El Paso Natural Gas Company
	P.O. Box 4990
	Farmington, New Mexico 87499
	Telephone: (505)325-2841
2.	Location of the discharge (in Township, Range and Section, 4,4,4 if available
	NW님 NE님 Section 8, Township 29-N, Range 9-W
	San Juan County, New Mexico
3.	The means of discharge (To a Lagoon, Flowing Stream, Water Course, Arroyo, Septic Tank-Leach field, Other-Specify.
	Unlined Pond
	OHTINGS TORK
4.	The estimated concentration of contaminants in the discharge
5.	The type of operation from which the discharge is derived
6.	The estimated flow to be discharged per day. 750 gpd October through April
7.	The estimated depth to ground water (if available). 15 feet
Sig	ned:







ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO: 87504 (505) 827-5800

November 23, 1987

Mr. Kenneth E. Beasley El Paso Natural Gas Company P. O. Box 4990 Farmington, New Mexico 87499

Dear Mr. Beasley:

Enclosed are copies of laboratory analyses of samples taken from the Aztec and Blanco wash rack drains on August 5, 1987. During the sampling trip we discussed modifications that El Paso could make to the drain systems to eliminate any discharges to watercourses. If those modifications are no longer being considered, the New Mexico Environmental Improvement Division should be contacted for a NPDES permit.

Sincerely,

Jami Bailey Geologist

Enc.

JB:sl

xc: OCD-Aztec

We can during this puties the selection of the meeting of historical the the

OF NEW MEXICO 700 Camino de Salud NE Albuquerque, NM 87106 841-2570 David Boyer S.L.D. No. OR-REPORT TO: N.M. Oil Conservation Division DATE REC. P. O. Box 2088 Santa Fe, N.M. 87504-2088 PRIORITY _____ USER CODE: | 8 | 2 | 2 327-5812 PHONE(S): David Boyer CODE: |2 | 6 | 0 | SUBMITTER: SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) | 8 | 7 | 0 | 8 | 0 | 5 | 0 | 9 | 0 | 0 | 4 | SAMPLE TYPE: WATER [X], SOIL [], FOOD [], OTHER: CODE: | | | COUNTY: SAN JUAN ; CITY: AZTEC CODE: | | | LOCATION CODE: (Township-Range-Section-Tracts) 3 0 N + 10 W + 10 + | (10N06E24342) ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required. PURGEABLE SCREENS EXTRACTABLE SCREENS (753) Aliphatic Purgeables (1-3 Carbons) (751) Aliphatic Hydrocarbons [X] (754) Aromatic & Halogenated Purgeables (760) Organochlorine Pesticides [(765) Mass Spectrometer Purgeables (755) Base/Neutral Extractables (766) Trihalomethanes (758) Herbicides, Chlorophenoxy acid Other Specific Compounds or Classes (759) Herbicides, Triazines (760) Organochlorine Pesticides (761) Organophosphate Pesticides (767) Polychlorinated Biphenyls (PCB's) [764] Polynuclear Aromatic Hydrocarbons (762) SDWA Pesticides & Herbicides FPNO AZTEC WASH RACK FIELD DATA: pH= ; Conductivity= umho/cm at ____ OC; Chlorine Residual= mg/l Dissolved Oxygen= mg/l; Alkalinity= mg/l; Flow Rate _____ Depth to water _____ft.; Depth of well_____ft.; Perforation Interval _____ft.; Casing:___ Sampling Location, Methods and Remarks (i.e. odors, etc.) END OF PIPE from work drain I certify that the results in this block accurately reflect the results of my field analyses, observations and activities. (signature collector): ______ Roule ____ Method of Shipment to the Lab Hond Carner This form accompanies __ Septum Vials, ____ Glass/Jugs, and/or ____ Samples were preserved as follows: NP: No Preservation; Sample stored at room temperature. P-Ice Sample stored in an ice bath (Not Frozen).

_____ on _______ and that at (location) the statements in this block are correct. Evidentiary Seals: Not Sealed ___ Seals Intact: Yes ___ No ___

I certify that this sample was transferred from

CHAIN OF CUSTODY

P-Na_S_O Sample Preserved with Sodium Thiosulfate to remove chlorine residual.



LAB. No.: OR- /3578

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s)) checked below:	
PURGEABLE SCREENS	EXTRACTABLE SCREENS	
(753) Aliphatic Purgeables (1-3 Carbons)	(751) Aliphatic Hydrocarbons	
(754) Aromatic & Halogenated Purgeables	(760) Organochlorine Pesticides	
(765) Mass Spectrometer Purgeables	(755) Base/Neutral Extractables	
(766) Trihalomethanes	(758) Herbicides, Chlorophenoxy acid	
Other Specific Compounds or Classes	(759) Herbicides, Triazines	
	(760) Organochlorine Pesticides	
<u> </u>	(761) Organophosphate Pesticides	
	(767) Polychlorinated Biphenyls (PCB's)	
	(764) Polynuclear Aromatic Hydrocarbons	
	(762) SDWA Pesticides & Herbicides	
——————————————————————————————————————	[(102) DD WA Testicides & Herbicides	
ANALYTICA	AL RESULTS	
######################################		CONC
COMPOUND(S) DETECTED CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
aromatic surseshles * N.D.		
Salogenated surgeables * N.D.		
		ļ
	. }	
<u></u>		
	ì	
* DETECTION LIMIT * * 25-49/c	+ DETECTION LIMIT +	
ABBREVIATIONS USED:		
N D = NONE DETECTED AT OR ABOVE THE STATE	D DETECTION LIMIT	
T R = DETECTED AT A LEVEL BELOW THE STATES		
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/	•	
·		
LABORATORY REMARKS:		
·		
CERTIFICATE OF ANAL	YTICAL PERSONNEL	
Seal(s) Intact: Yes No . Seal(s) broken by:	date:	
I certify that I followed standard laboratory procedures on handlin	unary	and
that the statements on this page accurately reflect the analytical		
,		
Date(s) of analysis: 9/14/97 . Analyst's signature:		
I certify that I have reviewed and concur with the analytical resu	its for this sample and with the statements in this	block.
Reviewers signature: K Meyerher		
, [



New Mexico Health and Environment Department SCIENTIFIC LABORATORY POSION 700 Camino de Salud NE Albuquerque, NM 87106

HEAVY TETAL ANALYSIS FORM

Telephone: (505)841-2553

FCP- 574	
	ser
	ode 🛛 82235 🗌 Other:
	hh mm COLLECTION SITE DESCRIPTION
	1900 EPNG AZTEC WASH
	ASTON RACK
BAILEY /OCOENIL	
TO:	
146	OV 17 1997 OWNER:
	and the state of t
ENVIRONMENTAL BUREAU	SITE LOCATION:
NM OIL CONSERVATION DIVISION	County: SAN JUAN
State Land Office Bldg., PO Box	2088
SANTA FE, NM 87504-2088	Township, Range, Section, Tract: (10N06E24342)
·	30W+//W+/O+
ATTN: <u>DAVIO BOYER</u>	
TELEPHONE: 827-5812 ST	ATION/ WELL CODE:
_	
LATITUDE, IA	ONGITUDE:
SAMPLING CONDITIONS: Bailed Pump Water Level	ola Digghowees Comple Myros
☐ Bailed ☐ Pump Water Level ☑ Dipped ☐ Tap	
pH(00400) Conductivity(Uncorr.) Wa	ater Temp.(00010) Conductivity at 25°C
ph (00400) conductivity (checii.) wa	(00094)
umho	OC jumho
FIELD COMMENTS: FRem and of (1	rash drain rine
The state of the s	all a partings of s
SAMPLE FIELD TREATMENT	LAB ANALYSIS REQUESTED:
Check proper boxes:	
WPN: Water	ICAP Scan
Preserved w/HNO Preserved w/HNO	
Non-Filtered Filtered	is required.
ΔΝΑΙ ΥΤΙζΑΙ	RESULTS (MG/L)
ELEMENT ICAP VALUE AA VALUE	ELEMENT ICAP VALUE AA VALUE
Aluminum 6.6	Silicon //.
Barium 0.2 🛭 0.3	Silver Zo.
Beryllium 40.	Strontium 0.5
Boron D.I	Tin 40.
Cadmium 40.1 🛛 0.004	Vanadium 40.
Calcium <u>53.</u>	Zinc 0.4
Chromium 40.	Arsenic 🗆
Cobalt < 0.05	Selenium
Copper <u>0.1</u>	Mercury
Iron <u>7.7</u>	
Lead <0.1 \(\sigma_0.024	
Magnesium 11.	<u> </u>
Manganese 0.98	
Molybdenum 40.1	
Nickel 40.1	
LAB COMMENTS:	Dienst
	- Ings
For OCD Use:	00
Date Owner Notified: 11/23 ICAP	Analyst Reviewer () mulchly
Phone or Letter?	
Initials: B Date	Analyzed 83187 Date Reveived 11/8/87

87- 1353 -C	

SCIENTIFIC LABORATORY DIVI 700 Camino de Salud NE Albuquerque, NM 87106 841-2570

REPORT TO:	David Boyer	s.L.D. No. OR- 1353 A4B			
	N.M. Oil Conservation Division	DATE REC. 8-14-87			
•	P. O. Box 2088	must be purged t			
	Santa Fe, N.M. 87504-2088	PRIORITY Wed. 8/19/87			
PHONE(S):	327-5812	USER CODE: 8 2 2 3 5			
SUBMITTER:	David Boyer	CODE: 2 6 0			
SAMPLE COLLI	ection code: (YYMMDDHHMMIII) 8 7 0	810151/1013101 AB			
	WATER [X], SOIL [_], FOOD [_], OTHER:	,			
COUNTY: 54	AN JUAN ; CITY: BLANCO	CODE:			
LOCATION COL	E: (Township-Range-Section-Tracts) <u> </u>	0 9 W+1 8+3 2+ (10N06E24342)			
	QUESTED: Please check the appropriate box(es) below				
required. Whenev	er possible list specific compounds suspected or requi				
(753) Alipha	atic Purgeables (1-3 Carbons)	EXTRACTABLE SCREENS (751) Aliphatic Hydrocarbons			
<u> </u>	atic & Halogenated Purgeables	(760) Organochlorine Pesticides			
(765) Mass	Spectrometer Purgeables	(755) Base/Neutral Extractables			
(766) Trihal	omethanes	[(758) Herbicides, Chlorophenoxy acid			
Othe	r Specific Compounds or Classes	(759) Herbicides, Triazines			
<u> </u>		(760) Organochlorine Pesticides			
		(761) Organophosphate Pesticides			
는		(764) Polynuclear Aromatic Hydrocarbons			
		(762) SDWA Pesticides & Herbicides			
''	70.10 (10.11)				
Remarks:	EPNG BLANCO WASH	RACK			
MANA DAMA					
PIELD DATA:	onductivity=umho/cm at°C; Chlorine	Position III			
	mg/l; Alkalinity= mg/l; Flow Rate				
	ft.; Depth of well ft.; Perforation Into	erval rt.; Casing:			
Sampling Location	on, Methods and Remarks (i.e. odors, etc.)				
	END OF PIPE from W	as wan			
I cortify that t	he results in this block accurately_reflect the results	of my field analyses observations and			
		Method of Shipment to the Lab:			
This form accor	npanies Septum Vials, Glass Jugs, and	/or			
	reserved as follows:				
☐ NP:	No Preservation; Sample stored at room temperatur	re.			
P-Ice	Sample stored in an ice bath (Not Frozen).				
P-Na ₂ S ₂ O ₃	Sample Preserved with Sodium Thiosulfate to remo	ve chlorine residual.			
CHAIN OF 2CU					
	his sample was transferred from				
at (location)	· · · · · · · · · · · · · · · · · · ·				
the statements in this block are correct. Evidentiary Seals: Not Sealed Seals Intact: Yes No					
Signatures	,				

For OCD Use: Date Owner Notified 11/23/87 Phone or Letter?



THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:				
PURGEABLE SCREENS (753) Aliphatic Purgeables (1-3 Carbons) (754) Aromatic & Halogenated Purgeables (765) Mass Spectrometer Purgeables (766) Trihalomethanes Other Specific Compounds or Classes	EXTRACTABLE SCREENS (751) Aliphatic Hydrocarbons (760) Organochlorine Pesticides (755) Base/Neutral Extractables (758) Herbicides, Chlorophenoxy acid (759) Herbicides, Triazines (760) Organochlorine Pesticides (761) Organophosphate Pesticides (767) Polychlorinated Biphenyls (PCB's) (764) Polynuclear Aromatic Hydrocarbons (762) SDWA Pesticides & Herbicides			
ANALYTI	CAL RESULTS			
COMPOUND(S) DETECTED CONC. [PPB]	COMPOUND(S) DETECTED CONC. [PPB]			
aromatic surreables N.D.	,			
halosenated Jauracables N.D.				
<i>V</i>	•			
·				
* DETECTION LIMIT * X 149/6	+ DETECTION LIMIT +			
ABBREVIATIONS USED: N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED) [RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION				
LABORATORY REMARKS:				
CERTIFICATE OF AN	ALYTICAL PERSONNEL			
Seal(s) Intact: Yes No Seal(s) broken by: I certify that I followed standard laboratory procedures on han that the statements on this page accurately reflect the analytic	al results for this sample.			
Date(s) of analysis: 9/17/87 . Analyst's signature:				
I certify that I have reviewed and concur with the analytical Reviewers signature:	results for this sample and with the statements in this block.			



New Mexico Health and Environment Department SCIENTIFIC LABORATORY TOO Camino de Salud NE Albuquerque, NM 87106

HEAVY ETAL ANALYSIS FORM

Telephone: (505)841-2553

۰, ۲

ICP-573	100000000 (000)011 2000
	er ode
COLLECTION DATE & TIME: yy mm dd h	th mm COLLECTION SITE DESCRIPTION
8708051/	
COLLECTED BY: Bailey/DCb	WASHRACK
	END OF PIPE
TO:	OWNER:
ENVIRONMENTAL BUREAU NM OIL CONSERVATION DIVISION State Land Office Bldg., PO Box SANTA FE, NM 87504-2088	SITE LOCATION: County: SAN UUAN 2088 Township, Range, Section, Tract: (10N06E24342) [2] 9 N+0 9 N+1 8+3 2
ATTN: <u>NAVIO BOYER</u> TELEPHONE: 827-5812 STA	
TELEPHONE: 827-5812 STA	ATION/ WELL CODE:
SAMPLING CONDITIONS:	ONGITUDE:
Bailed Pump Water Leve	el: Discharge: Sample Type:
☐ Dipped ☐ Tap	
pH(00400) Conductivity(Uncorr.) Wa	ter Temp.(00010) Conductivity at 25°C (00094)
umho	°C (00094)
	M drain mil
SAMPLE FIELD TREATMENT	LAB ANALYSIS REQUESTED:
Check proper boxes:	The state of the s
WPN: Water	ICAP Scan
Preserved w/HNO Preserved w/HNO Filtered	Mark box next to metal if AA is required.
ELEMENT ICAP VALUE AA VALUE	RESULTS (MG/L) ELEMENT ICAP VALUE AA VALUE
Aluminum 5.6	Silicon TIA VALUE
Barium <u>0.2</u> 📈 <u>0.3</u>	Silver 40.1
Beryllium 46.	Strontium 0.4
Boron 40.1	Tin <0.
Cadmium 40.1 🗵 40.001	Vanadium <0.
Calcium 4/.	Zinc O.I
Chromium 40.	Arsenic
Cobalt 40.05	Selenium
Copper	Mercury
Iron 3.5	<u> </u>
Lead 40.1 🛭 0.018	<u> </u>
Magnesium 8.8	<u> </u>
Manganese 0.23 Molybdenum 40.	
Nickel 40.1	
LAB COMMENTS:	
	Diaest
For OCD Use:	00
Date Owner Notified: 11/23/87 ICAP	Analyst Reviewer mallaly
Phone or Iatter?	2/2/27
Initials: Date	Analyzed 83187 Date Reveived ///0/87

El Paso Natural Gas Company



P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499 PHONE: 505-325-2841

March 19, 1987

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Re: Discharge Permit Options for El Paso Natural Gas Company Wash Racks at Blanco and Aztec Field Locations

Dear Mr. Boyer:

Per conversation with Henry Van in November, this letter is to inform you of the operational characteristics of our wash racks at Blanco and Aztec Field locations. Wastewater analysis for both locations will be included along with a material safety data sheet on the detergent used at these locations.

 Blanco Field - This facility is essentially a supply office for our people working in Blanco Field Operations. The office supplies our people with a place to fill out paper work and offers vehicular, fuel, minor maintenance, and a wash rack.

Raw water is taken from the San Juan River, pumped to a holding tank and used to wash our vehicles. The wastewater is then returned to the river. Mud covered vehicles are taken to a prewash area, hosed down to remove most of the mud then taken to the wash rack. The majority of vehicles washed are

Mr. David G. Boyer March 19, 1987 Page 2

1/2-3/4 ton 4x4 trucks, and seasonal variations prescribe the frequency on which these vehicles are cleaned. A commercial detergent 'Mean Red' (MSDS enclosed) is used and is not cut with any type solvents. Daily flows from the rack to the river average 60 bbl. (wastewater analysis enclosed)

 Aztec Field - Operations at this office are essentially the same as that at Blanco with the exception of the water supply and disposal point for the wash rack.

Water for the office and wash rack is supplied by the City of Aztec. Wash rack wastewater is then drained into a normally dry tributary of the Animas River. Wash rack wastewater flows into the tributary are again seasonal in frequency and volume with the average daily volume being 55 bbl. (wastewater analysis enclosed)

It is my impression that your department will visit the facilities listed, take samples of the wastewater for chemical analysis and review the data and operational procedures to decide on discharge permit options.

Please contact me or Ken Beasley to schedule a time to visit the facilities listed, or supply any additional information or clarify the information.

Yours very truly,

EL PASO NATURAL GAS COMPANY

David L. Wisdom PROCEED Engineer

DLW:msv

Enclosure

cc: K. E. Beasley, III

W. H. Healy, Jr.

H. Van

Consulting Geotechnical, Materials and Environmental Engineers Geologists, Scientists and Chemists



P.O. Box 690287, San Antonio, TX 78269-0287 12821 W. Golden Lane, San Antonio, TX 78249

(512) 699-9090

To: El Paso Natural Gas Company

P.O. Box 4990

Farmington, New Mexico 87499

Attn: Mr. Kenneth E. Beasley

Project No.:

SA0687-0003-004

Assignment No.: 6-10735 Date:

3/09/87

Subject:

Chemical Analysis of Water Sample with High Suspended

Solids Content

AZTEC

Background:

Grab Sample of Wash Rack Discharge was Collected by David

Wisdom/S. Aragon on 2/12/87. EPNG Sample J87-007

Test Method:

Metals and General Parameters - EPA 600/4-79-020, Std.

Metods:

Organics - VOA: EPA Method 624

Naphthalenes: HPLC

PCB: GC/ECD

Test Results:

I. M	etals:	Concentration
	Arsenic, mg/L	0.02
1,0	Barium, mg/L	1.2
1	Cadmium, mg/L	0.04
	Calcium, mg/L	150
	Copper, mg/L	0.13
	Iron, mg/L	86
,05	Lead, mg/L	0.12
	Magnesium, mg/L	34

Raba-Kiatner Consultants.

Page 1 of 3

Director, inorganic

SA0687-0003-004

Project No.: SA0687-0
Assignment No.: 6-10735
Date: 3/9/87

I. M	etals (cont'd)	Concentration	
	Manganese, mg/L	2.0	
	Mercury, mg/L	<0.001	
	Potassium, mg/L	11	
	Selenium, mg/L	<0.01	
	Silver, mg/L	0.02	
	Sodium, mg/L	95	
	Zinc, mg/L	1.1	
II. G	eneral Parameters:		
1	рН	7.3	
	TDS, mg/L	690	
	Total Residue, mg/L	5,200	
	COD, mg/L	910	
	011 and Grease, mg/L	16	
,005	Phenolics, mg/L	0.053	
	TOC, mg/L	290	
	Chloride, mg/L	20	
	Fluoride, mg/L	0.9	
	Nitrate-N, mg/L	<0.1 (<0.4 as NO ₃)
	Orthophosphate-P, mg/L	4.5 (14 as PO ₄	2
	Sulfate, mg/L	220	
	Cyanide, Total, mg/L	<0.005	
	Hardnesss, mg equiv. CaCO ₃ /L	510	
	Anion-Cation Balance, meg./meg.	22.1/19.5	
	Total Alkalinity, mg CaCO ₃ /L	820	
III. Or	ganics		
	Volatile Organics	See Attached	
	Ethylene dibromide, ug/L	<5.0	
	Napthalene, ug/L	<1.0	
	Monomethylnaphthalen, ug/L	42	
	PCB's, ug/L	<0.5	

CC: Mr. Loren Gearhart, EPNG, El Paso, Texas

Project No.: Sample No.:



(<u>PURGEABLE</u>S) (EPA Method 624)

Compound	Concentration (ug/L)	Method Detection Limits (ug/L)
Chloromethane	N.D.	5.0
Bromomethane	N.D.	5.0
Vinyl Chloride	N.D.	10.0
Chloroethane	N.D.	5.0
Methylene Chloride	N.D.	2.8
Trichlorofluoromethane	N.D.	5.0
1,1-Dichloroethene	N.D	2.8
1,1-Dichloroethane	N.D.	4.7
Trans-1,2-Dichloroethene	N.D.	1.6
Chloroform	N.D.	1.6
1,2-Dichloroethane	N.D.	2.8
1,1,1-Trichloroethane	N.D.	3.8
Carbon Tetrachloride	N.D.	2.8
Bromodichloromethane	N.D.	2.2
1,2-Dichloropropane	N.D.	6.0
Trans-1,3-Dichloropropene	N.D.	5.0
Trichloroethene	N.D	1.9
Dibromochloromethane	N.D.	3.1
1,1,2-Trichloroethane	N.D	5.0
cis-1,3-Dichloropropene	N.D.	5.0
Benzene	N.D.	4.4
2-Chloroethylvinyl Ether	N.D.	5.0
Bromoform	N.D.	4.7
1,1,2,2-Tetrachloroethane	N.D.	6.9
Tetrachloroethene	N.D	4.1
Toluene:	7.0	6.0
Chlorobenzene	N.D.	6.0
Ethylbenzene	N.D.	7.2
Xylenes	150	5.0

N.D.= Not Detected

,73

,62

Consulting Geotechnical, Materials and Environmental Engineers
Geologists, Scientists and Chemists



Raba-Kistner
Consultants Inc.

El Paso Natural Gas Company

P.O. Box 4990

To:

Farmington, New Mexico 87499

P.O. Box 690287, San Antonio, TX 78269-0287 12821 W. Golden Lane, San Antonio, TX 78249

(512) 699-9090

Attn: Mr. Kenneth E. Beasley

Project No:

686-003 J

Date Received:

10/21/86

Date Reported:

10/27/86

Submitted By:

EPNG

Sample Description/Code: J86-119, Water, Wash Rack Discharge, Blanco Field, R-KCI 6-10457-1

SUMMARY OF ANALYSIS

Determination	Analytical Method	Results (mg/L)	Miscellaneous
Chrmical Oxygen Demand	HACH Tube ¹	81.5	2 : 1
Nitrate-N	EPA 300.0	0.15	45
Oil and Grease	EPA 413.2	5.79	
Organic Carbon	EPA 415.1	47	
Orthophosphate	EPA 300.0 ²	<0.1	
Cyanide (total)	EPA 335.2	0.016	
Phenolics	EPA 420.1	<0.05	
Arsenic	EPA 206.2	<0.01	1 may

Special Comments:

- Federal Register, Vol. 45, April, 1980.
- 2. $\overline{\text{EPA } 600/4-79-020}$, March, 1984.
- Standards Methods, 16th Edition, 1985.
- 4. Federal Register, Vol. 49, October, 1984.
- 5. High Pressure Liquid Chromatography (HPLC).
 - C.C. Mr. Loren Gearhart, EPNG, El Paso, Texas

Raba-Kistner Consultants, Inc.

by Francis 4. Hong

Page 1 of 6

Consulting Geotechnical, Materials and Environmental Engineers Geologists, Scientists and Chemists



To: El Paso Natural Gas Company

P.O. Box 4990

Farmington, New Mexico 87499

Attn: Mr. Kenneth E. Beasley

12821 W. Golden Lane, San Antonio, TX 78249 (512) 699-9090

P.O. Box 690287, San Antonio, TX 78269-0287

Project No:

686-003 J

Date Received:

10/21/86

Date Reported:

10/27/86

Submitted By:

EPNG

Sample Description/Code: J86-119, Water, Wash Rack Discharge, Blanco Field, R-KCI 6-10457-1

SUMMARY OF ANALYSIS				
Determination	Analytical Method	Results (mg/L)	Miscellaneous	
Barium	EPA 208.1	0.45		
Cadmium	EPA 208.1	<0.01		
Calcium	EPA 215.1	25.1		
Chromium (total)	EPA 218.1	<0.02		
Copper	EPA 220.1	<0.01	′	
Hardness	St. Method 209 ³	81.9	as CaCO ₃	
Iron	EPA 236.1	0.35	13 max	
Lead	EPA 239.1	<0.05	. 65	

Special Comments:

Raba-Kistner Consultants, Inc.

by frame 4. Hung

Page 2 of 6

Consulting Geotechnical, Materials and Environmental Engineers Geologists, Scientists and Chemists

Consultants, Inc.

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P.O. Box 4990

Farmington, New Mexico 87499

Attn: Mr. Kenneth E. Beasley

Project No:

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Date Received:

10/21/86

Date Reported:

10/27/86

Submitted By: EPNG

Sample Description/Code: J86-119, Water, Wash Rack Discharge, Blanco Field, R-KCI 6-10457-1

SUMMARY OF ANALYSIS				
Determination	Analytical Method	Results (mg/L)	Miscellaneous	
Magnesium	EPA 242.1	4.67		
Manganese	EPA 243.1	0.02	,05	
Mercury	EPA 245.1	0.002		
Potassium	EPA 258.±	0.97		
Selenium	EPA 270.2	<0.01		
Silver	EPA 272.1	<0.01		
Sodium	EPA 273.1	2.31		
Zinc	EPA 289.1	0.09	5 mg	

Special Comments:

Page 3 of 6

Consulting Geotechnical, Materials and Environmental Engineers Geologists, Scientists and Chemists



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Attn: Mr. Kenneth E. Beasley

Project No:

686-003 J

Date Received:

10/21/86

Date Reported:

10/27/86

Submitted By:

EPNG

Sample Description/Code: J86-119, Water, Wash Rack Discharge, Blanco Field, R-KCI 6-10457-1

SUMMARY OF ANALYSIS				
Determination	Analytical Methpd	Results (mg/L)	Miscellaneous	
Alkalinity, total	Std. Method 403	78.4		
Alkalinity, Bicarbonate	Std. Method 403	95.6	. as CaCO3	
Chloride	EPA 300.0	1.50	25.	
Fluoride	EPA 300.0	0.24	1.5-2.5 mc/	
TDS	EPA 160.1	74	5 C C .	
Total Residue	EPA 160.3	1,890		
<u>Sulfate</u>	EPA 300.0	53.6	250011	
Volatile Organics	EPA 624 ⁴	See Attached		

Special Comments:

Raba-Kistner Consultants, inc.

Page 4 of 6

Consulting Geotechnical, Materials and Environmental Engineers Geologists, Scientists and Chemists

P.O. Box 690287, San Antonio, TX 78269-0287

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Project No:

686-003 J

Date Received: 10/21/86

Date Reported: 10/27/86

Submitted By: EPNG

Sample Description/Code:

J86-119, Water, Wash Rack Discharge, Blanco Field, R-KCI 6-10457-1

SUMMARY OF ANALYSIS				
Determination	Analytical Method	Results (mg/L)	Miscellaneous	
PCB's	EPA 608 ⁴	<0.0005		
Ethylene dibromide	EPA 624 ⁴	<0.005		
<u>Naphthalene</u>	EPA 610 ⁵	<0.001		
Monomethylnaphthalene	EPA 610 ⁵	<0.001		
Anion/Cation Balance	Calculation	2.73 meg/1.76 meg	J	
		-		

Special Comments:

Page 5 of 6

Raba-Kistner Consultants, Inc.



Project No. 686-003 J R-KCI Lab No. 6-10457-1

(<u>PURGEABLE</u>S) (EPA Method 624)

(EPA Method	024)	Method	
Compound	Concentration (ug/L)	Detection Limits (uq/L)	
Chloromethane	N.D.	5.0	
Bromomethane	N.D.	5.0	
Vinyl Chloride	N.D.	10.0	
Chloroethane	N.D.	5.0	
Methylene Chloride	N.D.	2.8	
Trichlorofluoromethane	N.D.	5.0	
1,1-Dichloroethene	N.D	2.8	
1,1-Dichloroethane	N.D.	4.7	
Trans-1,2-Dichloroethene	N.D.	1.6	
Chloroform	N.D.	1.6	
1,2-Dichloroethane	N.D.	2.8	
1,1,1-Trichloroethane	N.D.	3.8	
Carbon Tetrachloride	N.D.	2.8	
Bromodichloromethane	N.D.	2.2	
1,2-Dichloropropane	N.D.	6.0	
Trans-1,3-Dichloropropene	N.D.	5.0	
Trichloroethene	N.D	1.9	
Dibromochloromethane	N.O.	3.1	
1,1,2-Trichloroethane	N.D	5.0	
cis-1,3-Dichloropropene	N.D.	5.0	
Benzene	N.D.	4.4	
2-Chloroethylvinyl Ether	N.D.	5.0	
Bromoform	, N.D.	4.7	
1,1,2,2-Tetrachloroethane	N.D.	6.9	
Tetrachloroethene	N.D	4.1	
Toluene	N.D.	6.0	
Chlorobenzene	N.O.,	6.0	
Ethylbenzene	N.D.	7.2	
Xylenes	N.D.	5.0	

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

Form Approved OMB No. 44-R1387

J-23 1907

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I	
MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
LOBO SALES AND SUPPLY COMPANY, INC. (505) 32	5-7176 (817) 478-3221
ADDRESS (Number, Street, City. State, and ZIP Code) 118 Industrial Ct. Kennedale, IX 76060	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS RED"
Multi-Purpose Liquid Cleaner	Proprietary

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	*	TLV (Units)
PIGMENTS		NA	BASE METAL		NA
CATALYST		NA	ALLOYS		NA
VEHICLE		NA	METALLIC COATINGS		NA
SOLVENTS		NA	FILLER METAL PLUS COATING OR CORE FLUX		NA
ADDITIVES .		NA	OTHERS		NA
OTHERS		NA			
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES			*	TLV (Units)	
Product is a Non-Hazardon	us B1	end of	Water conditioning agents,		
Surfactants, Coupling Age	ents,	and En	nulsifiers.		
				1.	

SECTION III - PHYSICAL DATA				
BOILING POINT (°F.) As Water	SPECIFIC GRAVITY (H2O=1)	1.06		
VAPOR PRESSURE (mm Hg.) As Water	PERCENT, VOLATILE BY VOLUME (%)	77%		
VAPOR DENSITY (AIR=1)	EVAPORATION RATE	NA		
SOLUBILITY IN WATERCOMpletely Soluble				
	with Synthetic Detergent Odor			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA						
FLASH POINT (Method used)	FLAMMABLE LIMITS	Lei	Uel			
None						
EXTINGUISHING MEDIA N/A						
SPECIAL FIRE FIGHTING PROCEDURES	N/A					
UNUSUAL FIRE AND EXPLOSION HAZARD	s N/A					

		SE	CTION V	- HEAL	TH HAZARD D	ATA
THRESHOLD LIM	IT VALU	E Non	Establis	hed		
EFFECTS OF OVE NOT	REXPOSE belive	ed to be t	oxic - H	lowever,	in case of i	ngestion, contact physician.
EMERGENCY AND	plashe	aio Procedu ed in eyes	res , flush	with wa	ter for 15 mi	nutes.
			SECTION	IVI - RE	EACTIVITY DA	TA
STABILITY	UNS	TABLE		MOITION	S TO AVOID .	
	STA	BLE	Х			
INCOMPATABILIT	Kee	p away fr	om stron	g oxidi	zinq material: t nitrogen ox	
	ated t	MAY OCCUP		may emi	conditions to	TOE TUMES
POLYMERIZATION			ILL NOT OCCUR			
				X		
		SECT	ION VII -	SPILL	OR LEAK PROC	EDURES
STEPS TO BE TAI	MOD U	ase MATERIA p - Rinse	al is releaded was	ASED OR S	PILLEO er	
			· · · · · · · · · · · · · · · · · · ·			
WASTE DISPOSAL	METHO	· •	· · · · · · · · · · · · · · · · · · ·			
,	·	Norma	l for mi	ld deter	raents .	
		HUTING	1 101 181	id dete	genta	•
						200112101
RESPIRATORY P	ROTECT!				ROTECTION IN	FORMATION
		AL EXHAUST	11/			SPECIAL
VENTILATION		HANICAL (Ge	Recomm	ended		OTHER

SECTION IX - SPECIAL PRECAUTIONS PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING				
OTHER PRECAUTIONS	None			

EYE PROTECTION

Recommended

PAGE (2)

PROTECTIVE GLOVES

OTHER PROTECTIVE EQUIPMENT

Recommended