District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised March 17, 1999

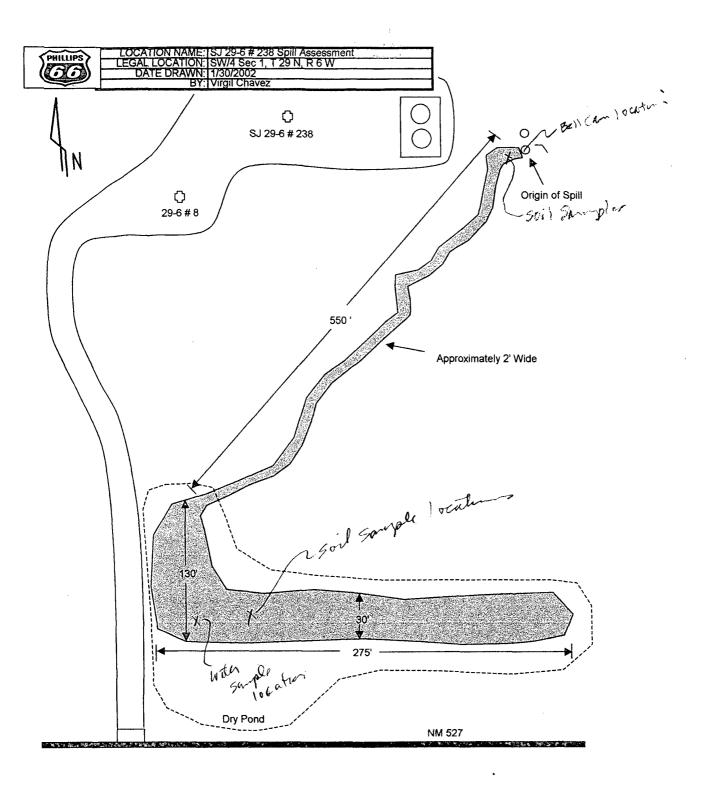
Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

	300	39 20	Relea 2064	ise Notifi		n and Co PERATO	orrective A	ction		Report X
Name of Co PHILLIPS	mpany	EUM COM					A. WIRTANE	N ₂		Timar Report
Address		ington, NM				Telephone N	lo.□ 505-599-3 4	462		11.50.00
Facility Nar San Juan 2	ne					Facility Typ	e□505-599-340	62		
Surface Ow				Mineral		AND MAN	AGEMENT		Lease N	No.□NM-012698
SMITH KA	uich					N OF REI				
Unit Letter L	Section 1	Township 29N		Feet from the 1561'		South Line	Feet from the 1029'	East/V WES	Vest Line Г	County□RIO ARRRIBA
				NA	ГURE	OF REL	EASE			
Type of Rele PRODUCEI						Volume of EST 300 E			Volume F	Recovered
	box to 4"		e approx.	100' off locatio	n	Unknown	Your of Occurrence	ce	Date and	Hour of Discovery □ 1/30/02 @ by PPCo Contractor
Was Immedia	ate Notice (s 🗌 No	☐ Not Requi	red	If YES, To Denny Fo	o Whom? ust – NMOCD vi	ia e-mai	ı	
By Whom?						Date and F	lour			
Patsy Clugst Was a Water		ched?				1/30/02 @	1400 hrs	the Wate	ercourse	
1			hs' stock p	ond Yes	☐ No	Unknown		the wat	creduise.	
If a Watercon Details Atta		npacted, Descr	ibe Fully.*							
Describe Cau		lem and Reme	dial Action	Taken.*						
		and Cleanup	Action Tak	en.*						
See initial re	port for si	ize.			ce for R'	TEX and TP	H The water sa	mnles t	aken were	elevated in BTEX but water
							that no further			
regulations a public health should their or the enviro	Il operators or the envoperations nment. In	s are required to ironment. The have failed to	to report and acceptance acceptance adequately OCD accep	d/or file certain e of a C-141 re investigate and	release r port by th remedia	notifications a ne NMOCD n te contaminat	and perform corre narked as "Final Fion that pose a the ve the operator of	ective active ac	tions for redoes not recound water sibility for a	suant to NMOCD rules and leases which may endanger lieve the operator of liability er, surface water, human health compliance with any other
	n	0 - 0	N-	A			OIL CON	VSERY K	$\overline{}$	DIVISION
Signature: Printed Nam	ne: Neal G	Goates	クト	2452)		Approved by	y□District Superv	visor: \int	or FU	tunk Chavez
Title: Site						Approval Da	ate: 12/19/0	2	Expiration	
Date:	12/19/0	12 Pho	one: 832-3	79-6427		Conditions	//			Attached

* Attach Additional Sheets If Necessary

NDGF0203237788

6



Phillips Petroleum Co.

Project:

TPH

Sample ID:

Pond 29-6 #238 Spill

Lab ID:

0302W00364

Matrix:

Soil

Condition:

Date Reported: 02/06/02

Date Sampled: 01/30/02

Date Received: 01/31/02

Date Extracted: N/A Cool/Intact

.	Analytical		
Parameter	Result	PQL	Units
DRO/ORO - Method 8015M			
Diesel Range Organics (C10 - C22)	<50	50	mg/Kg
Oil Range Organics (C22 - C32)	<50	50	mg/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
o-Terphenyl(SUR-8015)	87	70 -	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Project:

TPH

Sample ID:

Pond 29-6 #238 Spill

Lab ID:

0302W00364

Matrix:

Soil

Condition:

Cool/Intact

Date Reported: 02/11/02

Date Sampled: 01/30/02

Date Received: 01/31/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
GRO - Method 8015M			
Gasoline Range Organics(C6-C10)	2.31	0.05	mg/Kg
Gasoline Range Organics as Gasoline	2.31	0.05	mg/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
4-Bromofluorobenzene(SUR-8015B)	106	70 -	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

William Lipps

Analyst:

Phillips Petroleum Co.

Project:

TPH

Sample ID: Pond 29-6 #238 Spill

Lab ID:

0302W00364

Matrix:

Soil

Condition:

Cool/Intact

Date Reported: 02/12/02

Date Reported: 02/12/02

Date Sampled: 01/30/02 Date Received: 01/31/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
BTEX - Method 8021B			
Benzene	<50	50	ug/Kg
Ethylbenzene	<50	50	ug/Kg
Toluene	81	50	ug/Kg
Xylenes (total)	182	50	ug/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
4-Bromofluorobenzene(SUR-8021B)	103	70 - 1	130
a,a,a-Trifluorotoluene(SUR-8021B)	105	70 - 1	130

Reference: Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating

Solid Waste, Physical/Chemical Methods, United States Environmental

Protection Agency, SW 846/Volume IB.

Reviewed By:

William Lipps

Analyet:



CHAIN OF CUSTODY RECORD

Laboratories, Inc.											-
Glent/Project Name	77			Project Location	O のって	U	/		ANAL VSES / DABAMETERS	000	
+ 11111 DV	161	イのでない	111 0	1010	8	8 Dil	/	שוארוי		2	
Sampler: (Signatore)			Chain of Cu	Chain of Custody Tape No.	ó	-	1000	02/5		Remarks	
Sample No./		i	_				No. of Containe	/			
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Refinquished by: (Signature)				Date ,	Time	Received by: (Signature)	: (Signature)			Date	Time
Jul Ch	\^			1/31/05	50.50						
Relinquished by: (Signature)	A			Date	Time	Received by: (Signature)	: (Signature)			Date	Time
Relinquished by: (Signature)				Date	Time	Received by	Received by laboratory: (Signature)	ignature)	Me	Date	Time
		<u>_</u>	Inter-Mountain Laboratories, Inc.	in Labor	ratorie	s, Inc.					
555 Absaraka Sheridan, Wyoming 82801		1633 Terra Avenue Sheridan, Wyoming 82801	1701 F 1701 F 182801 Gillette	1701 Phillips Circle 3illette, Wyoming 82718	718	2506 West Main Street Farmington, NM 87401	ain Street	11183 (College	11183 State Hwy. 30 College Station, TX 77845	<u> </u>	871S
Telephone (307) 674-75		hana (307) B		one (307) 627-		Telephone (5)	05) 326-4737	Telenh	Talanhono (070) 776-8945	_	

Phillips Petroleum Co.

Project:

TPH

Sample ID: Valve Can 29-6 #238 Spill

Lab ID:

0302W00363

Cool/Intact

Matrix: Condition: Soil

Date Reported: 02/12/02

Date Sampled: 01/30/02

Date Received: 01/31/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
BTEX - Method 8021B			
Benzene	<0.5	0.5	mg/Kg
Ethylbenzene	0.6	0.5	mg/Kg
Toluene	5.1	0.5	mg/Kg
Xylenes (total)	9.0	1.5	mg/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
4-Bromofluorobenzene(SUR-8021B)	98	70 -	130
a,a,a-Trifluorotoluene(SUR-8021B)	99	70 -	130

Reference: Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating

Solid Waste, Physical/Chemical Methods, United States Environmental

Protection Agency, SW-846, Volume IB.

Reviewed By:

Phillips Petroleum Co.

Project:

TPH

Valve Can 29-6 #238 Spill

Lab ID:

0302W00363

Matrix:

Soil

Condition:

Sample ID:

Cool/Intact

Date Reported: 02/11/02

Date Reported: 02/11/02

Date Sampled: 01/30/02

Date Received: 01/31/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units	
GRO - Method 8015M				
Gasoline Range Organics(C6-C10)	24.6	0.5	mg/Kg	
Gasoline Range Organics as Gasoline	24.6	0.5	mg/Kg	
Quality Control - Surrogate Recovery	%	QC Li	QC Limits	
4-Bromofluorobenzene(SUR-8015B)	99	70 - 1	130	

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

William Lipps

Analyst: 🕽

Phillips Petroleum Co.

Project:

TPH

Sample ID:

Valve Can 29-6 #238 Spill

Lab ID:

0302W00363

Matrix:

Soil

Condition:

Date Reported: 02/06/02

Date Sampled: 01/30/02 Date Received: 01/31/02

Date Extracted: N/A

Cool/Intact

Parameter	Analytical Result	PQL	Units
DRO/ORO - Method 8015M			
Diesel Range Organics (C10 - C22)	<50	50	mg/Kg
Oil Range Organics (C22 - C32)	<50	50	mg/Kg
Quality Control - Surrogate Recovery	%	QC Li	mits
o-Terphenyl(SUR-8015)	90	70 -	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

District I 1625 N. French Dr., Hobbs, NM 88240 District III

District III

District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back

side of form

Form C-141

Revised March 17, 1999

			Rele	ase No	tificatio	n and Co	rrective A	ction _{7/1}				_
						OPERAT	OR		Initia	l Report		Final Report
Name of Co	mpany					Contact□R.	A. Wirtanen	. ~	11 30			
Phillips Pet	roleum Co	mpany					₹	5 2 1 g/s				
Address						Telephone N	lo.□ 505-599 -3 ²	462				
5525 Hwy.	64 Farmin	gton, NM	87401									
Facility Nan	ne					Facility Typ	e□ Coalseam V	Well				
San Juan 2	9-6 #238											
G 6 0				1 3.41	1.0				(N	(TINING O	12600	•
Surface Own				l l	neral Owner	134	4	1	Lease N	lo.□ NM-0	12090	5
Smith Rand	<u>ch</u>			Bui	reau of Lan	d Manageme	ent					
				,		N OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from	1	h/South Line	Feet from the	East/Wes		Coun	ty□Ri	o Arriba
L	1 1	29N	6W	1561	1'	South	1029'	Wes	st			
					NATURI	E OF REL	EASE					
Type of Rele	ase				<u>-</u>	Volume of		V	olume l	Recovered	<u> </u>	0 bbls
Produced W					······································	Est. 300 b						
Source of Re					_		Iour of Occurrence			Hour of Dis		
Buried valve			ne approx	. 100' off I	ocation	Unknown	1111 0	(a	0900 1	hrs by PPC	o Con	tractor
Was Immedia	ate Notice G		Yes	No 🗌	Not Required	If YES, To NMOCD	o whom? - Denny Foust vi	ia –e-mail.				
By Whom?						Date and I	Iour□1/30/02 @	1400 hrs	-			
Patsy Clugst	ton – Sr. Re	gulatory Cl	erk									
Was a Water							olume Impacting	the Waterco	ourse.			7
Appears to l					Yes No	Unknow	n					
If a Watercon												1
Describe Cau					in Final Repo	ort.						
					vectionting th	o couce right	now. Crew will	evcavate a	c nococe	arv to dete	rmino	d cauco(s)
Olikilowii at	t tills tillie, i	iave isolateu	i tile leak a	anu are in	vestigating ti	ie cause right	now. Crew will	extavate a	5 1166655	ary to ucie	imme	u cause(s).
Describe A	rea Affecte	ed and Clear	nup Actio	n Taken *	F□Size of sn	ill – 1' deep	X 2' wide, by 7	50' long -	- spill r	uns down	-grad	ient to Bill
							ples at the valv					
							e being taken a					
							ite his concern			APPI UM.	,	
							knowledge and i		that purs	suant to NN	1OCD	rules and
regulations a	all operators	are required	to report a	ınd/or file	certain release	e notifications a	and perform corre	ective action	ns for rel	eases which	n may	endanger
public health	n or the envi	ronment. Th	e acceptan	ice of a C-	141 report by	the NMOCD n	narked as "Final I	Report" doe	es not rel	lieve the op-	erator	of liability
							ion that pose a th					
				ptance of a	a C-141 repor	t does not relie	ve the operator of	f responsibi	ility for o	compliance	with a	ny other
tederal, state	e, or local la	ws and/or reg	gulations.			T	OH 003	IODD III	mrox :	- D.T. 110-	~~~	
							OIL CON	<u>ISERVA</u>	TION	DIVISIO	<u> </u>	
Signature:	Original s	igned by Pat	tsy Clugste	on								
J.B.iaiaio.	211511111 J	-5	Ciugat	V-1		Annravad	District Com-	vicor:				
Printed Nam	ne: Patsy C	lugston				Approved by	/□District Superv	V1501.				
Title: Sr. l	Regulatory	Clerk				Approval Da	ate:	Ex	piration	Date:		
Data	1/20/02	DL ~	na: 505_5	00 2454	•	Conditions	of Approval:			Attache	d 🔲	

^{*} Attach Additional Sheets If Necessary



PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 27, 2002

Mr. Bob Wirtanen
Phillips Petroleum
5525 U.S. Highway 64
Farmington, New Mexico 87401

Phone (505) 599-3462 Fax (505) 599-3442

REF: San Juan 29-6 #238 Spill Assessment

Dear Mr. Wirtanen:

Attached are the results from the soil and water sampling that I conducted at the above referenced site on February 1, 2002. Both soil and water samples were collected from the Bell Can at the source of the spill and from the shallow pond approximately 500 feet down hill from the source area. The samples are referenced as "Bell Can" and "Pond". The pond had approximately 2 inches of ice on it when sampled. Samples were collected from the pond by breaking the ice, digging a small hole, and allowing the water to fill the hole. The water in the hole was then scooped out into clean laboratory supplied containers. Water from the Bell Can was collected by skimming water from inside the Bell Can. Soil samples were collected from approximately 6 inch depths using a clean spatula. Sample locations are shown on the attached site sketch map provided by Virgil Chavez.

The following analyses were run:

Soil: TPH using USEPA Method 8015M Water: BTEX using USEPA Method 8021B

Water Quality for Major Cation/Anions using USEPA Method 600/4-79-020

Fecal Coliform using USEPA Method 922D

The results of these analyses indicate the water quality in the pond has slightly greater TDS and dissolved salts than the original spilled water. Both samples would fall into the class of "poor quality water" based on TDS. The TPH analysis shows detectable amounts of hydrocarbons in the water but none in the soil. The BTEX water analysis shows 90 ppb benzene in the Bell Can sample and 60 ppb benzene in the Pond sample. The fecal coliform sample results were less than method detection limits. All analyses were performed by Envirotech Labs, except for the fecal coliform, which was done by Inter-Mountain Labs of Farmington, New Mexico.

Respectfully Submitted,

ENVIROTECH INC.

C. Jack Collins, P.G. # 1822

Chief Environmental Scientist/Hydrogeologist

NM CES #038

icollins@envirotech-inc.com

Att:

Lab Results

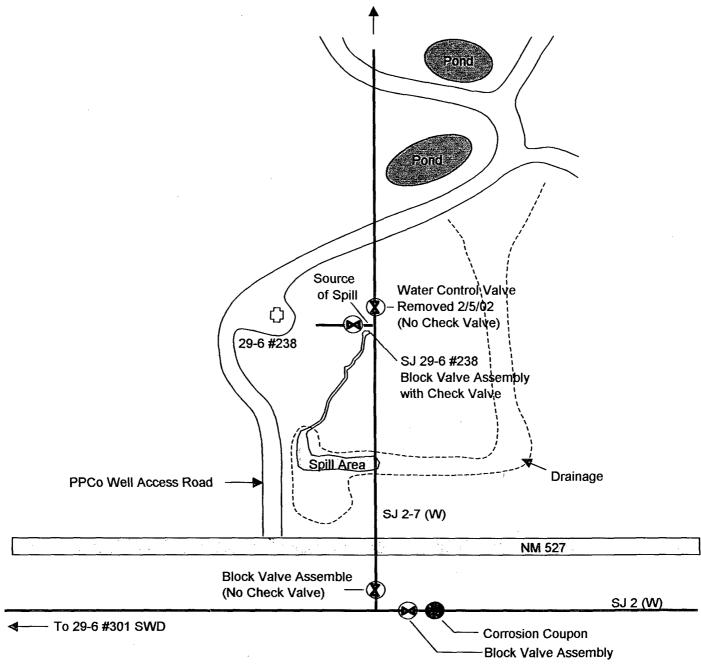
Site Map



LOCATION NAME: SJ 29-6 # 238 Spill Assessment LEGAL LOCATION: SW/4 Sec 1, T 29 N, R 6 W DATE DRAWN: 02/07/2002 BY: Virgil Chavez / Bernice Ivanoff



To SJ 30-5 #'s 211, 203, 212, & 237





EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Chain of Custody:	9774	Date Sampled:	02-01-02
Laboratory Number:	21999	Date Received:	02-01-02
Sample Matrix:	Water	Date Analyzed:	02-05-02
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	90.1	1	0.2
Toluene	8.7	1	0.2
Ethylbenzene	337	1	0.2
p,m-Xylene	42.1	1	0.2
o-Xylene	189	1	0.1
Total BTEX	667		

ND - Parameter not detected at the stated detection limit.

Surrogate Reco	overies:	Parameter	Percent Reco	very			
		Trifluorotoluene	98	%			
		Bromofluorobenzene	98	%			
References:	Method 503	DB, Purge-and-Trap, Test Methods for Evalua	ating Solid Waste, SW-846, L	JSEPA,			
	December 1	996.					
	Method 802	1B, Aromatic and Halogenated Volatiles by G	as Chromatography Using				
	Photoioniza	ion and/or Electrolytic Conductivity Detectors	, SW-846, USEPA Decembe	r 1996.			
Comments:	San Juan	San Juan 29-6 #238 Spill Assessment.					

Den C. aferen

(Review Malter



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Chain of Custody:	9774	Date Sampled:	02-01-02
Laboratory Number:	22001	Date Received:	02-01-02
Sample Matrix:	Water	Date Analyzed:	02-05-02
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	66.5	1	0.2
Toluene	8.7	1	0.2
Ethylbenzene	109	1	0.2
p,m-Xylene	7.3	1	0.2
o-Xylene	58.3	1	0.1
Total BTEX	250		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
,	Bromofluorobenzene	98 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

San Juan 29-6 #238 Spill Assessment.

Analyst C. Column



CATION / ANION ANALYSIS

Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Laboratory Number:	21999	Date Sampled:	02-01-02
Chain of Custody:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-04-02
Condition:	Cool & Intact		

	Analytical			•
Parameter	Result	Units		Units
рН	7.88	s.u.		
Conductivity @ 25° C	15,600	umhos/cm		
Total Dissolved Solids @ 180C	7,250	mg/L		
Total Dissolved Solids (Calc)	6,980	mg/L		
SAR	87.3	ratio		
Total Alkalinity as CaCO3	6,970	mg/L		
Total Hardness as CaCO3	168	mg/L		
Bicarbonate as HCO3	6,970	mg/L	114.24	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	3.0	mg/L	0.05	meq/L
Nitrite Nitrogen	0.003	mg/L	0.00	meq/L
Chloride	49.7	mg/L	1.40	meq/L
Fluoride	0.82	mg/L	0.04	meq/L
Phosphate	27.9	mg/L	0.88	meq/L
Sulfate	0.3	mg/L	0.01	meq/L
Iron	0.053	mg/L		
Calcium	49.6	mg/L	2.48	meq/L
Magnesium	10.7	mg/L	0.88	meq/L
Potassium	7.2	mg/L	0.18	meq/L
Sodium	2,600	mg/L	113.10	meq/L
Cations			116.64	meq/L
Anions			116.62	meq/L
Cation/Anion Difference			0.02%	

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Reference: Water And Waste Water", 18th ed., 1992.

Comments:

San Juan 29-6 #238 Spill Assessment.



CATION / ANION ANALYSIS

Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Laboratory Number:	22001	Date Sampled:	02-01-02
Chain of Custody:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-04-02
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	7.52	S.U.		Uilles
Conductivity @ 25° C	20,100	umhos/cm		•
Total Dissolved Solids @ 180C	10,040	mg/L		
- .	•	-		
Total Dissolved Solids (Calc)	9,020	mg/L		
SAR	51.2	ratio		
Total Alkalinity as CaCO3	8,320	mg/L		
Total Hardness as CaCO3	624	mg/L		
Bicarbonate as HCO3	8,320	mg/L	136.36	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	2.9	mg/L	0.05	meq/L
Nitrite Nitrogen	0.028	mg/L	0.00	meq/L
Chloride	382	mg/L	10.78	meq/L
Fluoride	0.97	mg/L	0.05	meq/L
Phosphate	2.6	mg/L	0.08	meq/L
Sulfate	76.8	mg/L	1.60	meq/L
Iron	0.039	mg/L		
Calcium	174	mg/L	8.68	meq/L
Magnesium	45.9	mg/L	3.78	meq/L
Potassium	340	mg/L	8.70	meq/L
Sodium	2,940	mg/L	127.89	meq/L
Cations			149.05	meq/L
Anions			148.92	meq/L
Cation/Anion Difference			0.08%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Water And Waste Water", 18th ed., 1992.

Comments: San Juan 29-6 #238 Spill Assessment.

Analyst C. Cerrica



Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Laboratory Number:	21999	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	1.3	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	1.3	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

San Juan 29-6 #238 Spill Assessment.

Aven E. Ceperin

Mistre n Walter



Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Laboratory Number:	22000	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Soil	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

San Juan 29-6 #238 Spill Assessment.

Analyst P. Cefferen

Mister M Workers



Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Laboratory Number:	22001	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.2	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.2	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

San Juan 29-6 #238 Spill Assessment.

Analyst C. Ofern

Mister of Wollen
Review



Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Laboratory Number:	22002	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Soil	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

San Juan 29-6 #238 Spill Assessment.

Analyst C. afleren

Mistri m Wheten



Quality Assurance Report

Client:	QA/QC		Project #:		N/A
Sample ID:	02-05-TPH QA	/QC	Date Reported:		02-05-02
Laboratory Number:	21997		Date Sampled:		N/A
Sample Matrix:	Methylene Chlori	ide	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		02-05-02
Condition:	N/A		Analysis Reques	sted:	TPH
	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	0.10%	0 - 15%
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	0.20%	0 - 15%
Blank Conc. (mg/L - mg/Kg)	GRIDES THE	Concentration	Land Company	Detection Limit	
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%	
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

QA/QC for samples 21997 - 22002.

Analyst



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-05-BTEX QA/QC	Date Reported:	02-05-02
Laboratory Number:	21997	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-05-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	l-CaliRF;	C-Cal RF: Accept. Rang	%Diff. ge 0 - 15%	Blank Conc	Detect.
Benzene	1.7143E-001	1.7195E-001	0.3%	ND	0.2
Toluene	9.4693E-002	9.4883E-002	0.2%	ND	0.2
Ethylbenzene	1.2284E-001	1.2321E-001	0.3%	ND	0.2
p,m-Xylene	1.0810E-001	1.0843E-001	0.3%	ND	0.2
o-Xylene	9.2106E-002	9.2290E-002	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample Du	olicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	ND	ND	0.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample Amo	unt Spiked Spik	ed Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	ND	50.0	49.9	99.8%	46 - 148
Ethylbenzene	ND	50.0	49.9	99.8%	32 - 160
p,m-Xylene	ND	100	100	100.0%	46 - 148
o-Xylene	ND	50.0	49.9	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for samples 21997 - 21999 and 22001.

CHAIN OF CUSTODY RECORD

Date Time Received by: (Signature) 2-01-02 1430 Received by: (Signature) Received by: (Signature) Received by: (Signature) Sample Receipt
Received by: (Signature) Received by: (Signature) Received by: (Signature) Received by: (Signature)
Sample Receipt
Sample Receipt
Sample Receipt

Date:

2/12/02

Client:

Phillips Petroleum Co.

Lab ID:

0302W00361-64

Project:

Livestock Water / TPH

Dear Client:

The samples were received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed are the results of these analyses.

Comment:

The enclosed reports have been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the reports and have made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, if not included, is on file and available upon request.

Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

If you have any questions, please call me at (505) 326-4737.

William Lipps

Laboratory Director/IML-Farmington, NM

Inter-Mountain

CHAIN OF CUSTODY RECORD

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))	Project Location 24-6 # 238	Chain of Custody Tape No.	Σ													<u> </u>	2/1/02 15	Date	Date T	Inter-Mountain Laboratories,	1701 Phillips Circle Gillette, Wvoming 82718
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	P P	Lab Number	320	A K	1							nter-Mount
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Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Valve Can

Lab ID:

0302W00371

Matrix:

Water

Condition:

Cool/Intact

Date Reported: 02/11/02

Data Camarda de 04/04/00

Date Sampled: 01/31/02 Date Received: 02/01/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
DRO/ORO - Method 8015M			
Diesel Range Organics (C10 - C22) Oil Range Organics (C22 - C32)	<5 <5	5 5	mg/L mg/L
Quality Control - Surrogate Recovery	%	QC Lir	mits
o-Terphenyl(SUR-8015)	104	70 - 1	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection

Agency, November 1986.

Method, 80/15/42, \$\frac{10}{10}\$ - \$\frac{1}{2}\$2 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$10 - \$\frac{1}{2}\$2 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/10 - \$\frac{1}{2}\$20 Hydrocarbons in Soil, Arizona Department of Health Services - 1.0, 09/25/10 - 1.0, 09/25

Reviewed By:

William Lipps

Analyst:

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Valve Can

Lab ID:

0302W00371

Matrix:

Water

Condition:

Cool/Intact

Date Reported: 02/12/02

Date Sampled: 01/31/02

Date Received: 02/01/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
GRO - METHOD 8015M			
Gasoline Range Organics(C6-C10)	4.7	0.5	mg/L
Gasoline Range Organics as Gasoline	4.7	0.5	mg/L
Quality Control - Surrogate Recovery	%	QC Lii	mits
4-Bromofluorobenzene(SUR-8015B)	117	70 - 1	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

William Lipps

Analyst:

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Valve Can

Lab ID: Matrix:

0302W00371

Cool/Intact

Condition:

Water

Date Reported: 02/11/02

Date Sampled: 01/31/02

Date Received: 02/01/02

Date Extracted: N/A

Darameter	Analytical	DO!	11
Parameter BTEX - Method 8021B	Result	PQL	Units
DIEA - Welliou 6021B			
Benzene	67	50	μg/L
Toluene	1,420	50	μg/L
Ethylbenzene	118	50	μg/L
Xylenes (total)	1,758	150	μg/L
Quality Control - Surrogate Recovery	%	QC Limits	
4-Bromofluorobenzene(SUR-8021B)	112	70 - 1	130
a,a,a-Trifluorotoluene(SUR-8021B)	105	70 - 130	

Reference: Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating Solid Waste, Physical Chemical Methods, United States Environmental

Protection Agency SW-846, Volume IB.

Reviewed By:

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Sample ID:

Valve Can

Lab ID:

0302W00371

Matrix:

Water

Condition:

Cool/Intact

Date Received: 02/01/02

Date Reported: 02/11/02

Date Sampled: 01/31/02

Time Sampled: 1310

The state of the s	Analytical		
Parameter	Result	Units	
GENERAL PARAMETERS			
PH	7.7	s.u.	
Electrical Conductivity	15,900	µmhos/cm	
Solids - Total Dissolved	11,500	mg/L	
Alkalinity (CaCO3)	6,590	mg/L	
Hardness (CaCO3)	153	mg/L	
Major Cations			
Calcium	28.3	mg/L	
Magnesium	20.1	mg/L	
Potassium	30.6	mg/L	
Sodium	4,190	mg/L	
Major Anions			
Bicarbonate (HCO3)	8,040	mg/L	
Carbonate (CO3)	<1	mg/L	
Chloride	4,700	mg/L	
Hydroxide (OH)	<1	mg/L	
Sulfate	56	mg/L	

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF,19th Edition, 1995.

EPA - "Methods for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By:

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Pond

Lab ID:

0302W00370

Matrix:

Water

Condition:

Cool/Intact

Date Reported: 02/11/02

Date Sampled: 01/31/02

Date Received: 02/01/02

Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
DRO/ORO - Method 8015M			
Diesel Range Organics (C10 - C22)	<5	5	mg/L
Oil Range Organics (C22 - C32)	<5	5	mg/L
Quality Control - Surrogate Recovery	%	QC Limits	
o-Terphenyl(SUR-8015)	101	70 - 1	130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November 1986.

Method, \$0,154Z, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision 1.0, 09/25/98.

Reviewed By:

William Lipps

Analyst:

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Pond

Lab ID:

0302W00370

Matrix:

Water

Condition:

Cool/Intact

Date Reported: 02/12/02

Date Sampled: 01/31/02

Date Received: 02/01/02

Date Extracted: N/A

Parameter	Analytical · Result	PQL	Units
GRO - METHOD 8015M			
Gasoline Range Organics(C6-C10)	214	50	μg/L
Gasoline Range Organics as Gasoline	214	50	µg/L
Quality Control - Surrogate Recovery	%	QC Li	mits
4-Bromofluorobenzene(SUR-8015B)	**	0 -	0

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection

Agency, November, 1986.

Reviewed By:

^{** -} Surrogate Recovery failed QC Limits due to matrix interference.

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Pond

Lab ID:

0302W00370

Matrix:

Water

Condition:

Cool/Intact -

Date Reported: 02/11/02

Date Sampled: 01/31/02

Date Received: 02/01/02

Date Extracted: N/A

7	5 5	μg/L μg/L
	_	
7	5	
5	5	/ µg/L /
3	15	µg/L/
	QC Lii	mits
) **	70 - 1	130
ò	70 - 1	130
) ** 6	0 ** 70 - 1

** - Surrogate Recovery failed QC Limits due to matrix interference.

Reference: Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, United States Environmental Protection Agency, SW-846, Volume IB.

Reviewed By:

Phillips Petroleum Co.

Sample ID:

Pond

Lab ID:

0302W00370

Matrix:

Water

Condition: Cool/Intact

Date Received: 02/01/02

Date Reported: 02/11/02

Date Sampled: 01/31/02 Time Sampled: 1426

	The second of th	Analytical	
Parameter		Result	Units
GENERAL PARAMETERS			
PH		7.4	s.u.
Electrical Conductivity		14,700	µmhos/cm
Solids - Total Dissolved		10,200	mg/L
Alkalinity (CaCO3)		5,150	mg/L
Hardness (CaCO3)		329	mg/L
Major Cations			
Calcium		61.1	mg/L
Magnesium		42.9	mg/L
Potassium		104	mg/L
Sodium		3,930	mg/L
Major Anions			
Bicarbonate (HCO3)		6,280	mg/L
Carbonate (CO3)		<1	mg/L
Chloride		5,610	mg/L
Hydroxide (OH)		<1	mg/L
Sulfate		292	mg/L

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF, 19th Edition, 1995.

EPA - "Methods fontile Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By:

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Project:

29-6 #238 SPILL

Sample ID:

Pond

Lab ID:

0302W00373

Matrix:

Water

Condition:

Cool/Intact

Date Received: 02/01/02

Date Reported: 02/12/02 Date Sampled: 02/01/02

Time Sampled: 1225

	Analytical	en de la companya de		Analysis	
Parameter	Result Units Un	ts PQL	Method	Date Time	Init.
Fecal Coliform	<10 Col/100 mL	10	SM 9222D	02/01/02 1550	WL

Reference: SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF, 19th Edition, 1995.

Reviewed By:

Date:

2/12/02

Client:

Phillips Petroleum Co.

Lab ID:

0302W00370-71

Project:

29-6 #238 Spill

Dear Client:

The samples were received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed are the results of these analyses.

Comment:

The enclosed reports have been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the reports and have made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, if not included, is on file and available upon request.

Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

If you have any questions, please call me at (505) 326-4737.

William Lipps

Laboratory Director/IML-Farmington, NM

Time Time Time 75153 2, A COUNTY OF THE PROPERTY. Date Date Date Remarks ANALYSES / PARAMETERS College Station, TX 77845 Telephone (979) 776-8945 11183 State Hwy. 30 Received by Jaboratory: (Signature) Telephone (505) 326-4737 Fecal Colife Received by: (Signature) Received by: (Signature) 1 2506 West Main Street Farmington, NM 87401 No. of Containers Anter-Mountain Laboratories, Inc Project Location 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945 2451 Matrix Time Time Time Chain of Custody Tape No. Date Date Date 2-4-1-02 11.00365 Lab Number 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945 1225 Time Client/Project Name > + rolever 2-01-02 Date Sheridan, Wyoming 82801 Telephone (307) 674-7506 Relinquished by: (Signature) Relinquished by: (Signature) Relinguished by: (Signature) Sampler: (Signature) Identification Sample No./ 555 Absaraka Inter-Mountain Laboratories, Inc. Pond

CHAIN OF CUSTODY RECORD

シュサ

Carcellins Jair Collins 632-0615

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Project:

SJ 29-6#248

Sample ID:

POND

Lab ID:

0302W00365

Matrix:

Water

Condition:

Cool/Intact

Date Received: 02/01/02

Date Reported: 02/12/02

Date Sampled: 02/01/02

Time Sampled: 1225

	Analytica	1. Control & Diego Park & Western 1978 (1988) 4 (1989) 1. (1989)			Analysis	
Parameter	Result	Units	Units PQL	Method	Date Time	lnit.
Fecal Coliform	<10	Col/100 mL	10	SM 9222D	02/01/02 1550	ZW

Reference: SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF,19th Edition, 1995.

Reviewed By:

Date:

2/12/02

Client:

Phillips Petroleum Co.

Lab ID:

0302W00365

Project:

Pond

Dear Client:

The sample was received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed is the result of the analysis.

Comment:

The enclosed report has been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the report and has made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, if not included, is on file and available upon request.

Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

If you have any questions, please call me at (505) 326-4737.

William Lipps

Laboratory Director/IML-Farmington, NM



CHAIN OF CUSTODY RECORD

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Remark	16=49	MARTINET	NC-8 = N	Pond A=	B = No	\						/	Y							Mule S	****	vy. 30 , TX 77845
75											/					The state of the s				ignature)		11183 State Hwy. 30 College Station, TX 77845 Telephone (279) 776-8945
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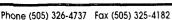
FAX

INTER-MOUNTAIN LABORATORIES, INC. 2506 WEST MAIN ST. FARMINGTON, NM 87401

TAMMENTAGE OLD, MAN O 1401	
	Date: 2/12/02
	Number of pages:
To: Bob Wirtanen Phillips Detroleum	From: Gelf Low Month
Phone:	Phone: 800-828-1409
Fax: 599-3442	Fax: 505-325-4182
CC:	
Remarks: ()Urgent DFor Your Revi	ew ()Reply ASAP ()Please Comment
Mr. Wirtanen,	
attached are &	tre analytical
results for &	tre soil samples 5, 2001. Please
received Teb.	5,2001. Please
call y you I	have any questions
The Gard copy	of the report
will be sent	through the wail
	choosing luter -
nountain Labor	

398-399, 400, 401

2506 West Main Street, Farmington, NM 87401



CASE NARRATIVE

Client:

Phillips Petroleum Company

Project:

29-6 #238 SPILL

Set number:

0302S00398

Date received:

February 5, 2002

Date reported:

February 12, 2002

Chain of Custody:

75162

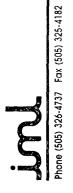
Four soil samples were received by IML intact on February 5, 2002. The samples were labeled Phillips Petroleum 29-6 #238 Spill and correspond to IML Lab Ids 0302S00398-401. The requested parameters were Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), Exchangeable Sodium % (ESP), Nitrogen, Phosphorous, and Potassium. The samples were analyzed on an air-dry weight basis.

Comment:

The saturated paste extract for the EC and SAR was prepared in accordance with methods from American Society of Agronomy (ASA) Monograph 9, 2nd Edition (1982), 10-3. The EC of the saturated paste was measured using a YSI Model 32 Conductivity Bridge. The SAR (soluble cations) were determined by EPA method 200.7 using a Thermo-Jarrell Ash Enviro 36 inductively coupled plasma (ICP) optical emission spectrometer. The Exchangeable Sodium % was determined using extraction procedures from the USDA Soil Survey Laboratory Methods Manual (1996) Methods 5D & 5A2a and analysis by ICP. The nitrogen was extracted using the procedure from ASA Mono. 9, 2nd Ed. (1982) 33-3.2 and analyzed using an Alpkem rapid flow analyzer. The phosphorous was extracted by the Olsen bicarbonate extraction method (ASA Mono. 9, 2nd Ed. 1982. 24-5.4) and analyzed by Hach spectrophotomer. The potassium was extracted with ammonium acetate (ASA Mono. 9, 2nd Ed. 1982. 13-3.3) and analyzed by ICP.

Jeff Goats Soil Scientist

7	7	7	Z4: NS	135 2 SA 1246	:	THE SAIMS OF THE STATE OF THE S	3			Intel	·Mount	ain Lal	Inter-Mountain Laboratories, Inc.
Phone (5	Phone (505) 326-4737 Fax (505) 325-4182	325-4182		M OSH of	~	AND THE PROPERTY OF THE PROPER		AND THE PROPERTY OF THE PROPER	CATACON CONTRACTOR AND	Spritter of the curves transferrence		2506 West N	2506 West Main Street, Farmington, NM 87401
				-1 -2 	-برد	Phillips Petroleum Co.	Petrole	um Co.					Page 1 of 2
Client Pro	Client Project ID: 29-6 #238 SPILL	8 SPILL		<u>.</u> €%	-	Fan	Farmington, NM	∑ 7				2	IML Project #0302S00398
Date Rec	Date Received: 02/05/02			(Report Date: 02/11/02
Lab Id	Sample Id	Depths	Hd	(Electrical) Conductivity	Saturation	Ca	Mg	œ Z	SAR	Nitrate - N	Phosporous	lo-	
	ı	Inches	s.u.	mp/soumm	%	meq/L	meq/L	med/L	ratio	mg/Kg	mg/Kg	mg/Kg	THE REPORT OF THE PARTY OF THE
0302S00398	V.C. Sample A	A/A	7.5	0.48	57	3.5	0.78	0.53	0.4	3.9	16	490	
0302S00399	V.C. Sample B	A/N	9.7	12	58	2.0	1.8	170	120	4.	10	1100	
0302S00400	Pond Sample A	A/A	7.4	0.55	. 86	3.4	0.70	0.91	9.0	12	19	009	
0302S00401	Pond Sample B	۷ ۷	8.4	5.7	104	1.0	1.2	64	9	2.0	20	850	
State of the state	Solution of the state of the st				So of the second			and the second of the second o					
	500												



Inter-Mountain Laboratories, Inc. 2506 West Main Street, Farmington, NM 87401

Page 2 of 2

IML Project #0302S00398

Report Date: 02/11/02

Phillips Petroleum Co.

Farmington, NM

Client Project ID: 29-6 #238 SPILL

Date Received: 02/05/02

			Cation Exch. Available	Available	Exch.	Exch.Sodium
Lab Id	Sample Id	Depths	Capacity	Sodium	Sodium	Percent
	-	luches	Inches meq/100g meg/L		meq/100g	9/
0302S00398	302S00398 V.C. Sample A N/A	N/A	25 <0.1	<0.1	<0.1	<0.1
0302S00399	V.C. Sample B	N/A	24	21	12	90
0302S00400	0302S00400 Pond Sample A	A/N	40	0.2	0.1	0.3
0302S00401	3302S00401 Pond Sample B	Υ/Z	36	28	22	61

Time Time Time 75153 Date Date Date Remarks ANALYSES / PARAMETERS College Station, TX 77845 Telephone (979) 776-8945 11183 State Hwy. 30 Received by Jaboratory: (Signature) Farmington, NM 87401 Telephone (505) 326-4737 Fecal / Received by: (Signature) Received by: (Signature) CHAIN OF CUSTODY RECORD 2506 West Main Street No. of Containers Inter-Mountain Laboratories, Inc. Project Location Matrix 742 Time Time Time Gillette, Wyoming 82718 Telephone (307) 682-8945 Chain of Custody Tape No. 1701 Phillips Circle . Date Date Date 101 13 1,00365 Lab Number Sheridan, Wyoming 82801 Telephone (307) 672-8945 1633 Terra Avenue 1225 Time Client/Project Name Petroleum 2-01-02 Date 555 Absaraka Sheridan, Wyoming 82801 Telephone (307) 674-7506 Relinquished by: (Signature) Relinquished by: (Signature) Relinguished by: (Signature) Sampler: (Signature) dentification Sample No./ Inter- Mountain Laboratories, Inc. Ponce

SAME Y

HZL

Jan Collin

2506 West Main Street Farmington, NM 87401

Client:

Phillips Petroleum Co.

Project:

SJ 29-6#248

Sample ID:

POND

Lab ID:

0302W00365

Matrix:

Water

Condition: Cool/Intact Date Received: 02/01/02

Date Reported: 02/12/02 Date Sampled: 02/01/02

Time Sampled: 1225

Parameter	Analytica Result	하다 사내스 경영 가능하는 사람들이 다양하는 사람들이 걸음이 있다. 그 그 작업이 있다.	Units PQL	Method	Analysis Date Time In
Fecal Coliform	<10	Col/100 mL	10	SM 9222D	02/01/02 1550 Z

Reference: SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF,19th Edition, 1995.

Reviewed By:

Date:

2/12/02

Client:

Phillips Petroleum Co.

Lab ID:

0302W00365

Project:

Pond

Dear Client:

The sample was received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed is the result of the analysis.

Comment:

The enclosed report has been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the report and has made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, if not included, is on file and available upon request.

Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

If you have any questions, please call me at (505) 326-4737.

William Lipps

Laboratory Director/IML-Farmington, NM



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CHAIN OF CUSTODY RECORD

Latoracios						
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Millips Fetroleum	29.64	1258 0	Dill 1	ANALYSES / PARAMETERS	S	1
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Sample No./ Cample No./ Date Time Lab Number		Matrix	No. of Contain	?H+		
FOND (30/02 1338 361		Water	7			
GAN 1 1310		-				
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						T
Relinquistical by: (Sighaturé)	Date 1/31/02	Time 05:00	Received by: (Signature)		Date Time	0
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Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	(Signature)	Date Time 5/02 090	00
Inter-Mountain Laboratories, Inc.	tain Labo	ratorie	s, Inc.			
555 Absaraka 1633 Terra Avenue 170 Sheridan, Wyoming 82801 Sheridan, Wyoming 82801 Gills	(1) 1701 Phillips Circle Gillette, Wyoming 82718	27.18	2506 West Main Street Farmington, NM 87401	11183 State Hwy. 30 College Station, TX 77845	0700	
Telenhone (307) 672-8945	nhone (207) 685		alanhona (505) 326-17			

Client:

Phillips Petroleum Co.

Sample ID:

Pond 29-6 #238 Spill

Lab ID:

0302W00361

Matrix:

Water

Condition:

Cool/Intact

Date Received: 01/31/02

Date Reported: 02/12/02

Date Sampled: 01/30/02

Time Sampled: 1338

	Analytical	
Parameter	Result	Units
General Parameters		· · · · · · · · · · · · · · · · · · ·
PH	8.1	s.u.
Electrical Conductivity	19,600	µmhos/cm
Solids - Total Dissolved	13,600	mg/L
Hardness (CaCO3)	195	mg/L
Alkalinity (CaCO3)	6,760	mg/L
Major Anions		
Bicarbonate (HCO3)	8,250	mg/L
Carbonate (CO3)	<1	mg/L
Chloride	6,750	mg/L
Nitrate (IC)	< 0.05	mg/L
Sulfate	447	mg/L
Major Cations		
Calcium	20.3	mg/L
Magnesium	35.2	mg/L
Sodium	4,560	mg/L

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protectic

Agency, Final Undate 1 July 1992.

SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF, 19th Edition, 1995.

Reviewed By:

Client:

Phillips Petroleum Co.

Sample ID:

Valve Can 29-6 #238 Spill

Lab ID:

0302W00362

Matrix:

Water

Condition:

Cool/Intact

Date Received: 01/31/02

Date Reported: 02/12/02

Date Sampled: 01/30/02

Time Sampled: 1310

	Analytical	
Parameter	Result	Units
General Parameters		
PH ·	7.6	s.u.
Electrical Conductivity	17,800	µmhos/cm
Solids - Total Dissolved	12,400	mg/L
Hardness (CaCO3)	162	mg/L
Alkalinity (CaCO3)	7,920	mg/L
Major Anions		
Bicarbonate (HCO3)	9,660	mg/L
Carbonate (CO3)	<1	mg/L
Chloride	4,500	mg/L
Nitrate (IC)	<0.05	mg/L
Sulfate	137	mg/L
Major Cations		
Calcium	28.4	mg/L
Magnesium	22.0	mg/L
Sodium	4,580	mg/L

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protectic

Agency, Figral/Update 1, July 1992.

SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF,19th Edition, 1995.

Reviewed By:

William Lipps

Date:

2/12/02

Client:

Phillips Petroleum Co.

Lab ID:

0302W00361-64

Project:

Livestock Water / TPH

Dear Client:

The samples were received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed are the results of these analyses.

Comment:

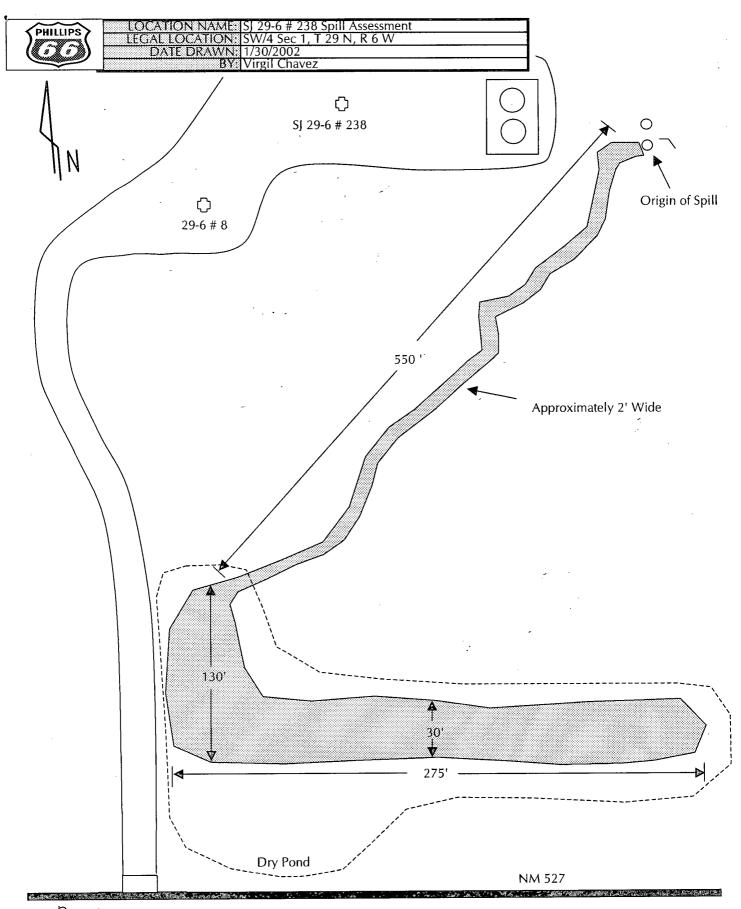
The enclosed reports have been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the reports and have made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, if not included, is on file and available upon request.

Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

If you have any questions, please call me at (505) 326-4737.

William Lipps

Laboratory Director/IML-Farmington, NM



n DG#0203237788

.02/01/02 12:25:11

Ob.ject-Fax->

505 428 2567 SNMNM-

Page 001

NATIONAL RESPONSE CENTER - FLASH FAX

GOVERNMENT USE ONLYGOVERNMENT USE ONLY***

DO NOT RELEASE this information to the public without

permission from the NATIONAL RESPONSE CENTER 1-800-424-8802



Incident Report # 592799

INCIDENT DESCRIPTION

*Report taken by: CIV JOHNSON at 12:11 on 01-FEB-02

Incident Type: PIPELINE Incident Cause: OTHER

Affected Area: PRIVATE RANCH POND

The incident was discovered on 30-JAN-02 at 09:30 local time.

Affected Medium: WATER PRIVATE RANCH POND

REPORTING PARTY

Name:

ROBERT WIRTANEN
PHILLIPS PETROLEUM

Organization: Address:

5525 HIGHWAY 64 BOX 3004

FARMINGTON, NM 87401

PHILLIPS PETROLEUM called for the responsible party.

PRIMARY Phone: (505)5993462

Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name:

ROBERT WIRTANEN
PHILLIPS PETROLEUM

Organization: Address:

5525 HIGHWAY 64 BOX 3004

FARMINGTON, NM 87401

PRIMARY Phone: (505)5993462

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

County: RIO ARRIBA

City: NAVAJO DAM State: NM Distance from City: 16 MILES

Direction from City: NW

Section: 1 Township: 29N Range: 6W

UNIT L

RELEASED MATERIAL(S)

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: PRODUCED WATER

Qty Released: 2195 BARREL(S)

Qty in Water: 1895 BARREL(S)

DESCRIPTION OF INCIDENT

THE MATERIAL RELEASED FROM 4" PIPELINE DUE TO POSSIBLE CORROSION WHICH IS TO BE DETERMINED.

INCIDENT DETAILS

Pipeline Type: GATHERING

DOT Regulated: NO

Pipeline Above/Below Ground: BELOW

Exposed or Under Water: NO Pipeline Covered: UNKNOWN ---WATER INFORMATION---

Body of Water: PRIVATE RANCH POND

Tributary of:

92/81/82 12:25:26

Object-Fax->

585 428 2567 SNMNM-

Page 002

Nearest River Mile Marker: Water Supply Contaminated: NO

DAMAGES

Fire Involved: NO Fire Extinguished: UNKNOWN INJURIES:

Hospitalized:

Emp1/Crew:

Passenger:

FATALITIES:

Empl/Crew:

Passenger:

Occupant:

EVACUATIONS:

Who Evacuated:

Radius/Area:

Damages:

Hours

Direction of

Closure Type Description of Closure

Closed

Closure

Air:

Major N Artery:

Waterway: N

Track:

Road:

N

Media Interest: NONE Community Impact due to Material: NO

REMEDIAL ACTIONS

SHUT THE LINE

Release Secured: YES

Release Rate:

Estimated Release Duration:

WEATHER

Weather: SNOWY, 30:F

ADDITIONAL AGENCIES NOTIFIED

Federal:

State/Local: BLM,NM OIL CONSER.,NM LAND OFFICE,NM DEQ

State/Local On Scene:

State Agency Number: NO REPORT #

NOTIFICATIONS BY NRC

ATTN: JANET JONES ATSDR CO

01-FEB-02 12:24 (303) 5923023

U.S. EPA VI

(214) 6656428

MAIL EPA R6 ATTN: KENNETH CLARK

01-FEB-02 12:24 (214)6656493

NOAA 1ST CLASS BB RPTS FOR NM

01-FEB-02 12:24 (206) 5266344

CO OIL & GAS CONSERVATION COMM

01-FEB-02 12:24 (303)8942100

DOI/OEPC - R6

01-FEB-02 12:24 (505) 7663565

NM DOE ATTN: D. BRINKERHOFF

01-FEB-02 12:24 (505) 8271558

DOI/OEPC DENVER

01~FEB-02 12:24 (303) 4452500

ADDITIONAL INFORMATION

THE CALLER HAD NO ADDITIONAL INFORMATION.

32/81/82 12:25:39

Object-Fax->

505 428 2567 SNMNM-

Page 003

*** END INCIDENT REPORT 592799 ***

Report any problems or Fax number changes by calling 1-800-424-8802

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