

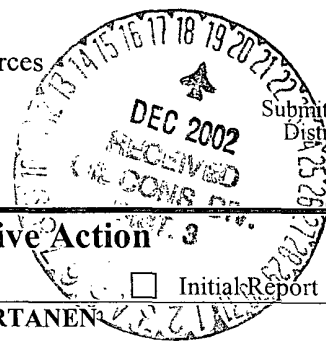
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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



Release Notification and Corrective Action

30 039 24605

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company PHILLIPS PETROLEUM COMPANY	Contact <input type="checkbox"/> R. A. WIRTANEN
Address 5525 Hwy. 64, Farmington, NM 87401	Telephone No. <input type="checkbox"/> 505-599-3462
Facility Name San Juan 29-6 Unit #238	Facility Type <input type="checkbox"/> 505-599-3462

Surface Owner SMITH RANCH	Mineral Owner BUREAU OF LAND MANAGEMENT	Lease No. <input type="checkbox"/> NM-012698
-------------------------------------	---	--

LOCATION OF RELEASE

Unit Letter L	Section 1	Township 29N	Range 6W	Feet from the 1561'	North/South Line SOUTH	Feet from the 1029'	East/West Line WEST	County <input type="checkbox"/> RIO ARRRIBA
-------------------------	---------------------	------------------------	--------------------	-------------------------------	----------------------------------	-------------------------------	-------------------------------	---

NATURE OF RELEASE

Type of Release PRODUCED WATER	Volume of Release EST 300 BBLS	Volume Recovered <10 BBLS
Source of Release Buried valve box to 4" water pipeline approx. 100' off location	Date and Hour of Occurrence Unknown	Date and Hour of Discovery <input type="checkbox"/> 1/30/02 @ 0900 hrs by PPCo Contractor
Was Immediate Notice Given? X <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Denny Foust - NMOCD via e-mail	
By Whom? Patsy Clugston	Date and Hour 1/30/02 @ 1400 hrs	
Was a Watercourse Reached? Appears to have reached Mr. Smiths' stock pond <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Unknown	

If a Watercourse was Impacted, Describe Fully.*
Details Attached.

Describe Cause of Problem and Remedial Action Taken.*
Internal Corrosion

Describe Area Affected and Cleanup Action Taken.*
See initial report for size.
All soils sample points attached to this report meet compliance for BTEX and TPH. The water samples taken were elevated in BTEX but water no longer present near valve or pond. We respectfully request your approval and that no further action be necessary.


I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

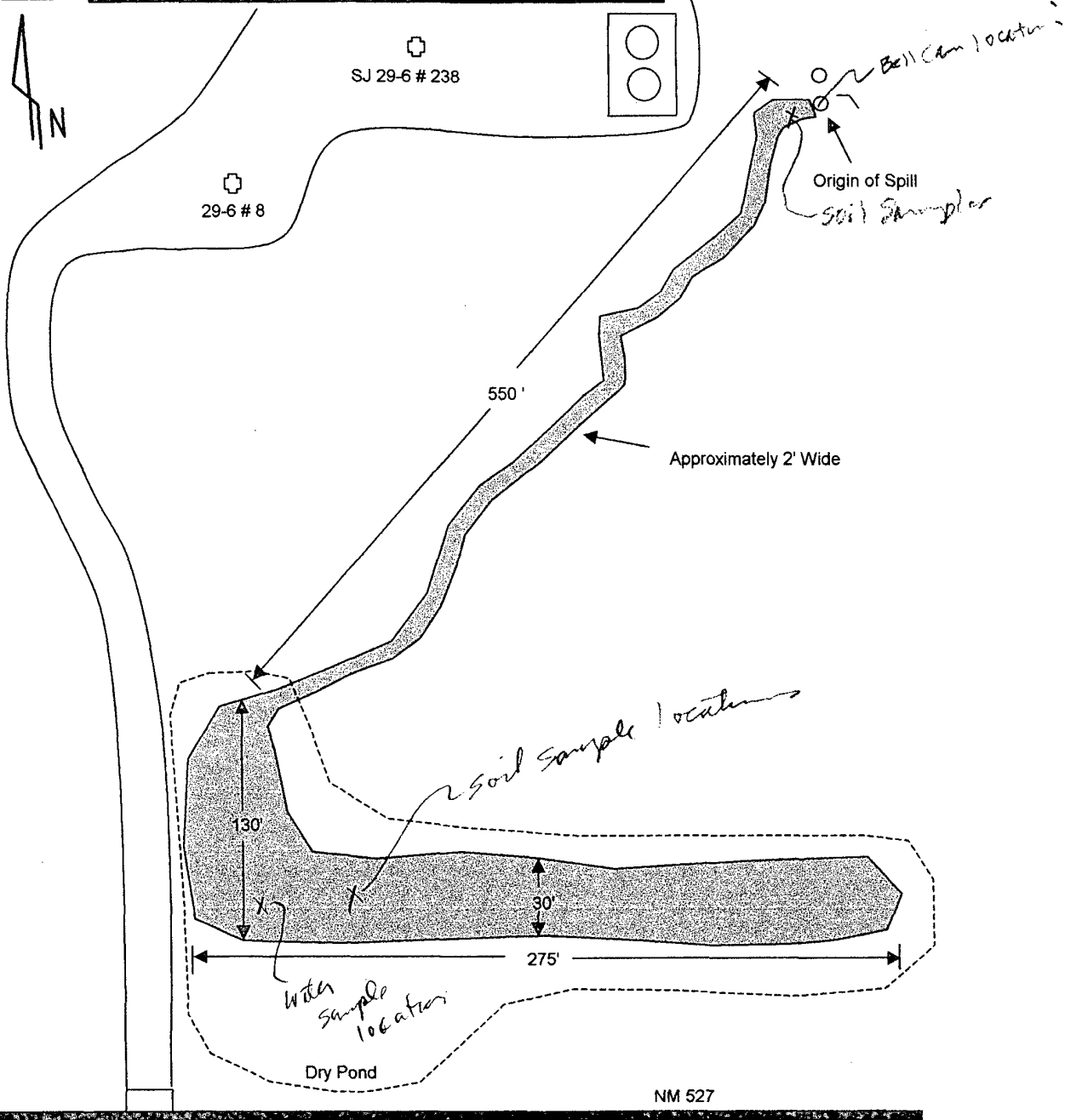
Signature:	OIL CONSERVATION DIVISION	
Printed Name: Neal Goates	Approved by <input type="checkbox"/> District Supervisor: for Frank Chavez	
Title: Site Manager	Approval Date: 12/19/02	Expiration Date:
Date: 12/19/02 Phone: 832-379-6427	Conditions of Approval:	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

NDGF0203237788

55

	LOCATION NAME: SJ 29-6 # 238 Spill Assessment
	LEGAL LOCATION: SW/4 Sec 1, T 29 N, R 6 W
	DATE DRAWN: 1/30/2002
	BY: Virgil Chavez



Client: Phillips Petroleum Co.
Project: TPH
Sample ID: Pond 29-6 #238 Spill
Lab ID: 0302W00364
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/06/02
Date Sampled: 01/30/02
Date Received: 01/31/02
Date Extracted: N/A


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 Limits
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: 

William Lipps

Analyst: 

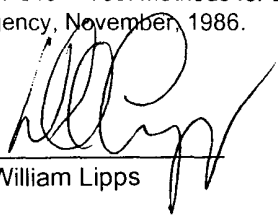
Client: Phillips Petroleum Co.
Project: TPH
Sample ID: Pond 29-6 #238 Spill
Lab ID: 0302W00364
Matrix: Soil
Condition: Cool/Intact


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 Limits
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: 

Client: 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 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 Limits
4-Bromofluorobenzene(SUR-8021B)	103	70 - 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: 

William Lipps

Analyst: 



CHAIN OF CUSTODY RECORD

[illegible]

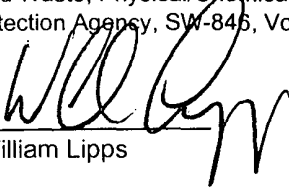
Client: Phillips Petroleum Co.
Project: TPH
Sample ID: Valve Can 29-6 #238 Spill
Lab ID: 0302W00363
Matrix: Soil
Condition: Cool/Intact

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 Limits
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: 
William Lipps

Analyst: 

Client: Phillips Petroleum Co.
Project: TPH
Sample ID: Valve Can 29-6 #238 Spill
Lab ID: 0302W00363
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)	24.6	0.5	mg/Kg
Gasoline Range Organics as Gasoline	24.6	0.5	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
4-Bromofluorobenzene(SUR-8015B)	99	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: 

Client: Phillips Petroleum Co.
Project: TPH
Sample ID: Valve Can 29-6 #238 Spill
Lab ID: 0302W00363
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/06/02
Date Sampled: 01/30/02
Date Received: 01/31/02
Date Extracted: N/A

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 Limits
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:

William Lipps

Analyst:

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

Release Notification and Corrective Action

OPERATOR ☒ Initial Report ☐ Final Report

Name of Company Phillips Petroleum Company	Contact <input checked="" type="checkbox"/> R. A. Wirtanen
Address 5525 Hwy. 64 Farmington, NM 87401	Telephone No. <input checked="" type="checkbox"/> 505-599-3462
Facility Name San Juan 29-6 #238	Facility Type <input type="checkbox"/> Coalseam Well

Surface Owner Smith Ranch	Mineral Owner Bureau of Land Management	Lease No. <input type="checkbox"/> NM-012698
-------------------------------------	---	--

LOCATION OF RELEASE

Unit Letter L	Section 1	Township 29N	Range 6W	Feet from the 1561'	North/South Line South	Feet from the 1029'	East/West Line West	County <input type="checkbox"/> Rio Arriba
-------------------------	---------------------	------------------------	--------------------	-------------------------------	----------------------------------	-------------------------------	-------------------------------	--

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Est. 300 bbls	Volume Recovered <input type="checkbox"/> < 10 bbls
Source of Release Buried valve box to 4" water pipeline approx. 100' off location	Date and Hour of Occurrence Unknown	Date and Hour of Discovery <input type="checkbox"/> 1/30/02 @ 0900 hrs by PPCo Contractor
Was Immediate Notice Given? X Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD - Denny Foust via -e-mail.	
By Whom? Patsy Clugston - Sr. Regulatory Clerk	Date and Hour <input type="checkbox"/> 1/30/02 @ 1400 hrs	
Was a Watercourse Reached? Appears to have reached Mr. Smith's stock pond <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Unknown	
If a Watercourse was Impacted, Describe Fully.* Unknown at this time. Pictures and details will follow in Final Report.		
Describe Cause of Problem and Remedial Action Taken.* Unknown at this time, have isolated the leak and are investigating the cause right now. Crew will excavate as necessary to determined cause(s).		
Describe Area Affected and Cleanup Action Taken.* <input type="checkbox"/> Size of spill - 1' deep X 2' wide, by 750' long - spill runs down-gradient to Bill Smith's stock pond and stops there. The pond is low and frozen. PH samples at the valve box and pond are being taken to determine extent of produced water in the pond. Soil & water samples are being taken and should take approx. 4 days for lab reports. Landowner has been notified and we are working to accommodate his concerns.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

OIL CONSERVATION DIVISION

Signature: Original signed by Patsy Clugston	Approved by <input type="checkbox"/> District Supervisor:	
Printed Name: Patsy Clugston		
Title: Sr. Regulatory Clerk	Approval Date:	Expiration Date:
Date: 1/30/02 Phone: 505-599-3454	Conditions of Approval:	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

ENVIROTECH INC.

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.

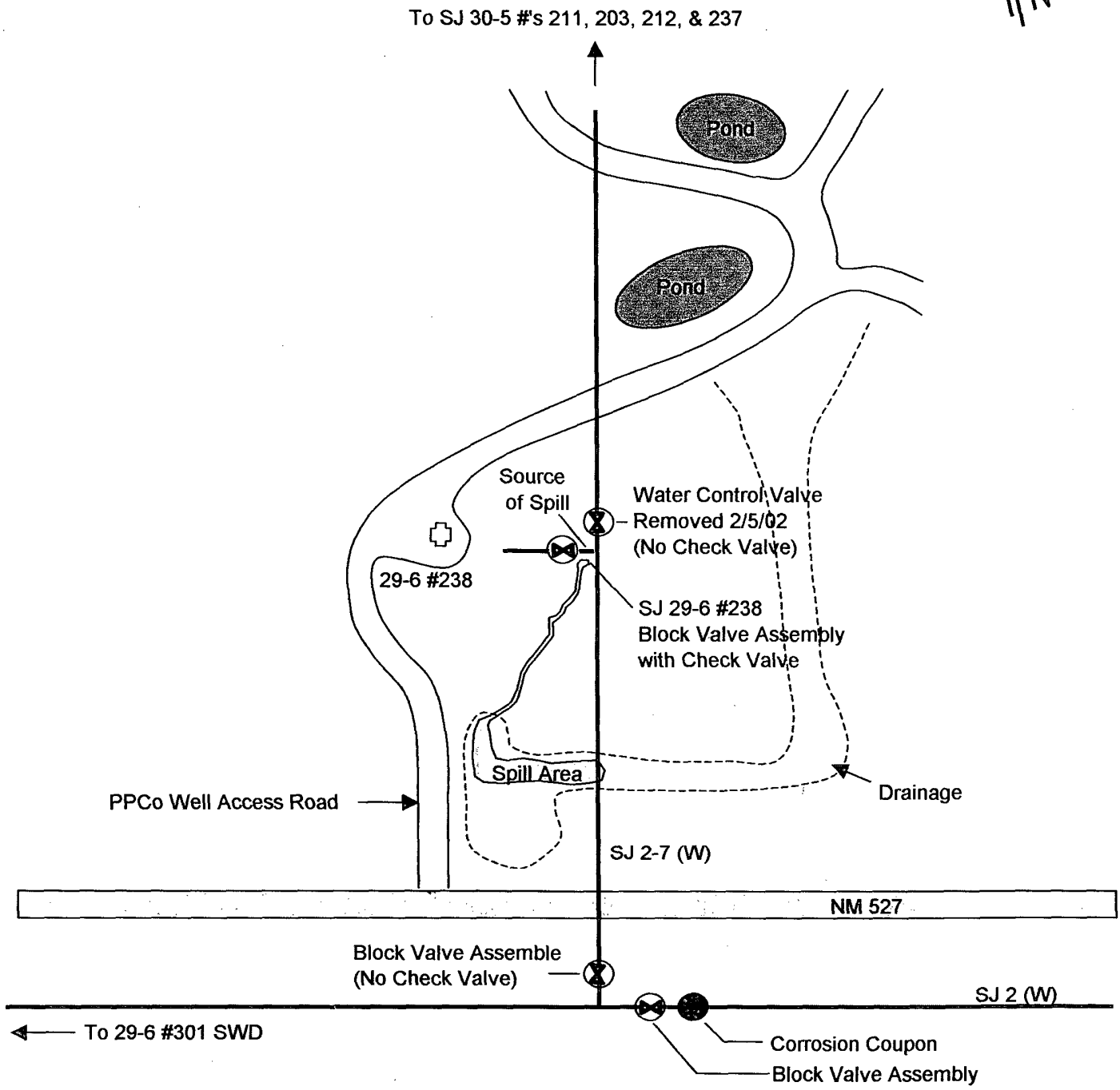


C. Jack Collins, P.G. # 1822
Chief Environmental Scientist/Hydrogeologist
NM CES #038
jcollins@envirotech-inc.com



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



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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:	HgCl ₂ & 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.

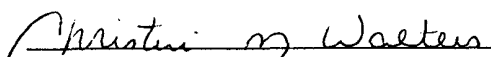
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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.

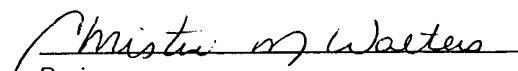
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

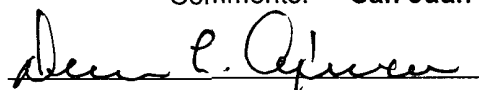
CATION / ANION ANALYSIS

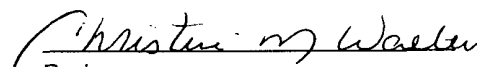
Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Laboratory Number:	21999	Date Sampled:	02-01-02
Chain of Custody:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-04-02
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	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%	

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

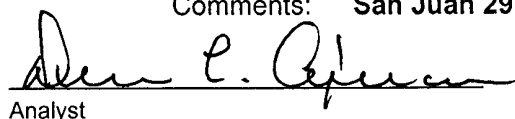
CATION / ANION ANALYSIS

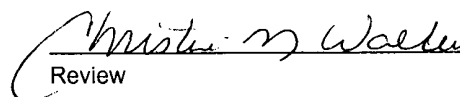
Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Laboratory Number:	22001	Date Sampled:	02-01-02
Chain of Custody:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-04-02
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	7.52	s.u.		
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


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

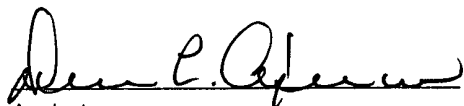
Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Bell Can	Date Reported:	02-05-02
Laboratory Number:	21999	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact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

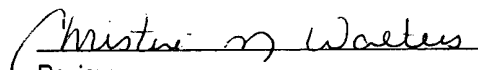
Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	1.3	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	1.3	0.2

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.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons


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

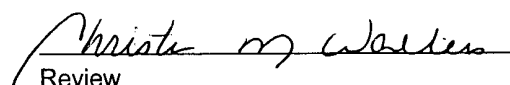
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

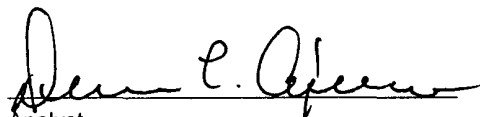
Client:	Phillips Petroleum	Project #:	96052-013
Sample ID:	Pond	Date Reported:	02-05-02
Laboratory Number:	22001	Date Sampled:	02-01-02
Chain of Custody No:	9774	Date Received:	02-01-02
Sample Matrix:	Water	Date Extracted:	02-05-02
Preservative:	Cool	Date Analyzed:	02-05-02
Condition:	Cool and Intact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

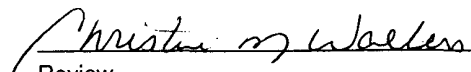
Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.2	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.2	0.2

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons


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

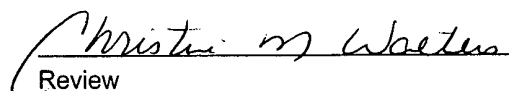
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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


Review

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

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 Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-05-02
Condition:	N/A	Analysis Requested:	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)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

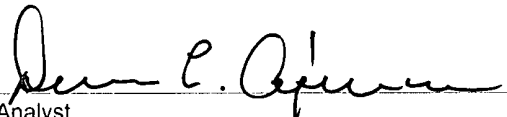
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

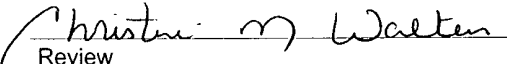
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

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


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
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

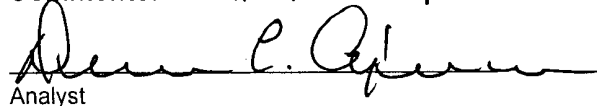
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	ND	ND	0.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

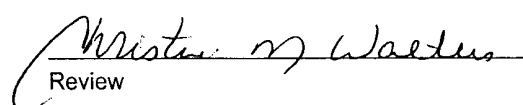
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	ND	50.0	49.9	99.8%	46 - 148
Ethylbenzene	ND	50.0	49.9	99.8%	32 - 160
p,m-Xylene	ND	100	100	100.0%	46 - 148
o-Xylene	ND	50.0	49.9	99.8%	46 - 148

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.


Analyst


Review

09774

ENVIRONMENTAL TECHNOLOGY

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

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:

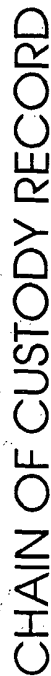
The enclosed reports have been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the reports and have made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, 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



CHAIN OF CUSTODY RECORD

15157

iml
Inter-Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		Analyses / PARAMETERS		Remarks		
Phillips Petroleum		29-6 #238 Spru						
Sampler: (Signature)		Chain of Custody Tape No.						
Tucker		Vigil Chavez						
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Analyses / PARAMETERS	Remarks	
POND	3/1/02	1426	370	Water	1	✓	See Attached	
Valve Can	3/1/02	1310	371	Oil	1	✓		
Valve Can	3/1/02	1216	372	Oil	2	✓		
POND	3/1/02	1225	373	Oil	1	✓	Oil / Intact	
<div style="display: flex; justify-content: space-between;"> <div> <p>Refquisitioned by: (Signature)</p> <p>Refquisitioned by: (Signature)</p> <p>Refquisitioned by: (Signature)</p> </div> <div> <p>Date</p> <p>Date</p> <p>Date</p> </div> <div> <p>Time</p> <p>Time</p> <p>Time</p> </div> <div> <p>Received by: (Signature)</p> <p>Received by: (Signature)</p> <p>Received by: (Signature)</p> </div> <div> <p>Date</p> <p>Date</p> <p>Date</p> </div> <div> <p>Time</p> <p>Time</p> <p>Time</p> </div> </div>								
<p>Inter-Mountain Laboratories, Inc.</p> <p>555 Absaroka Sheridan, Wyoming 82801 Telephone (307) 674-7566</p>				<p>2500 West Main Street Farmington, NM 87401 Telephone (505) 882-8845</p>				<p>75151</p>
<p>1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 674-7566</p>				<p>1183 State Hwy. 30 College Station, TX 77845 Telephone (505) 326-4737</p>				<p>73543</p>

ECORD

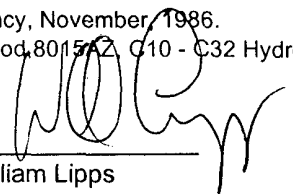
Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Valve Can
Lab ID: 0302W00371
Matrix: Water
Condition: Cool/Intact

Date Reported: 02/11/02
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)	104	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November 1986.
Method 8015A2, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/98.

Reviewed By: 
William Lipps

Analyst: 

Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Valve Can
Lab ID: 0302W00371
Matrix: Water
Condition: Cool/Intact

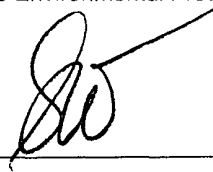
Date Reported: 02/12/02
Date Sampled: 01/31/02
Date Received: 02/01/02
Date Extracted: N/A

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 Limits	
4-Bromofluorobenzene(SUR-8015B)	117	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: 

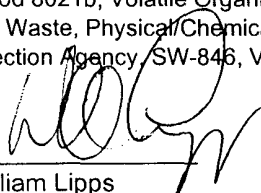
Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Valve Can
Lab ID: 0302W00371
Matrix: Water
Condition: Cool/Intact

Date Reported: 02/11/02
Date Sampled: 01/31/02
Date Received: 02/01/02
Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
BTEX - Method 8021B			
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 - 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: 
William Lipps

Analyst: 

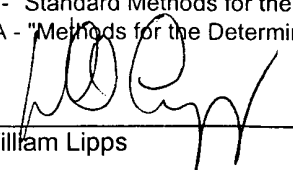
Client: Phillips Petroleum Co.
Sample ID: Valve Can
Lab ID: 0302W00371
Matrix: Water
Condition: Cool/Intact

Date Received: 02/01/02
Date Reported: 02/11/02
Date Sampled: 01/31/02
Time Sampled: 1310

Parameter	Analytical Result	Units
GENERAL PARAMETERS		
PH	7.7	s.u.
Electrical Conductivity	15,900	µmhos/cm
Solids - Total Dissolved	11,500	mg/L
Alkalinity (CaCO ₃)	6,590	mg/L
Hardness (CaCO ₃)	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 (HCO ₃)	8,040	mg/L
Carbonate (CO ₃)	<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:


William Lipps

Client: 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 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
Method 8015A-Z, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision 1.0, 09/25/98.

Reviewed By:

William Lipps

Analyst:

Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Pond
Lab ID: 0302W00370
Matrix: Water
Condition: Cool/Intact

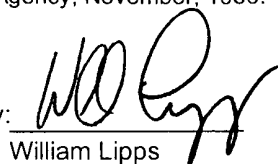
Date Reported: 02/12/02
Date Sampled: 01/31/02
Date Received: 02/01/02
Date Extracted: N/A

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 Limits	
4-Bromofluorobenzene(SUR-8015B)	**	0 - 0	

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

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

Reviewed By:


William Lipps

Analyst: _____

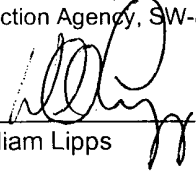
Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Pond
Lab ID: 0302W00370
Matrix: Water
Condition: Cool/Intact

Date Reported: 02/11/02
Date Sampled: 01/31/02
Date Received: 02/01/02
Date Extracted: N/A

Parameter	Analytical Result	PQL	Units
BTEX - Method 8021B			
Benzene	17	5	µg/L
Toluene	57	5	µg/L
Ethylbenzene	<5	5	µg/L
Xylenes (total)	38	15	µg/L
Quality Control - Surrogate Recovery			
	%	QC Limits	
4-Bromofluorobenzene(SUR-8021B)	140 **	70 - 130	
a,a,a-Trifluorotoluene(SUR-8021B)	106	70 - 130	

** - 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: 
William Lipps

Analyst: 

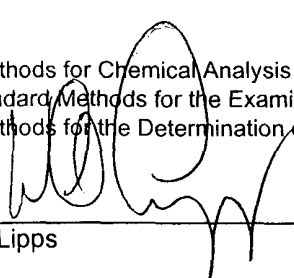
Client: Phillips Petroleum Co.
Sample ID: Pond
Lab ID: 0302W00370
Matrix: Water
Condition: Cool/Intact

Date Received: 02/01/02
Date Reported: 02/11/02
Date Sampled: 01/31/02
Time Sampled: 1426

Parameter	Analytical Result	Units
GENERAL PARAMETERS		
PH	7.4	s.u.
Electrical Conductivity	14,700	µmhos/cm
Solids - Total Dissolved	10,200	mg/L
Alkalinity (CaCO ₃)	5,150	mg/L
Hardness (CaCO ₃)	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 (HCO ₃)	6,280	mg/L
Carbonate (CO ₃)	<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 for the Determination of Metals in Environmental Samples" - Supplement I - 600/R-94-111 - May, 1994.

Reviewed By:


William Lipps

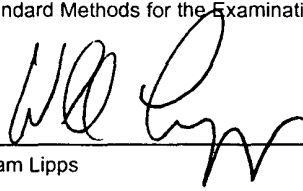
Client: Phillips Petroleum Co.
Project: 29-6 #238 SPILL
Sample ID: Pond
Lab ID: 0302W00373
Matrix: Water
Condition: Cool/Intact

Date Received: 02/01/02
Date Reported: 02/12/02
Date Sampled: 02/01/02
Time Sampled: 1225

Parameter	Analytical		Units	Units	PQL	Method	Analysis		
	Result						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:


William Lipps

Date: 2/12/02
Client: Phillips Petroleum Co.
Lab ID: 0302W00370-71
Project: 29-6 #238 Spill

Dear Client:

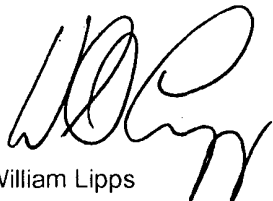
The samples were received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed are the results of these analyses.

Comment:

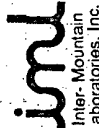
The enclosed reports have been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the reports and have made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, 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



ENGINEERED FILL
JACK COLLINS
632-0615
Bill Phillips

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS							
Phillips Petroleum		San Juan 29-6 #238									
Sampler: (Signature)		Chain of Custody Tape No.		Remarks							
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers						
Pond	2-01-02	12:25	W00365	H ₂ O	1						
Relinquished by: (Signature)		Date		Time	Received by: (Signature)						
P. Jack Collins		2-01-02		1347							
Relinquished by: (Signature)		Date		Time	Received by: (Signature)						
Relinquished by: (Signature)		Date		Time	Received by: (Signature)						
Inter-Mountain Laboratories, Inc.											
<input type="checkbox"/> Absaraka 555 Sheridan, Wyoming 82801 Telephone (307) 674-7506		<input type="checkbox"/> 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945		<input type="checkbox"/> 2506 West Main Street Farmingington, NM 87401 Telephone (505) 326-4737							
<input type="checkbox"/> 11183 State Hwy. 30 College Station, TX 77845 Telephone (979) 776-8945		75153									

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	Analytical		Units	Units	PQL	Method	Analysis		
	Result						Date	Time	Init.
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:

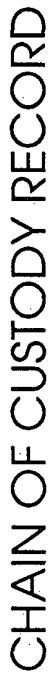
The enclosed report has been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the report and has made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, 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.

A handwritten signature in black ink, appearing to read 'William Lipps', is positioned above the printed name.

William Lipps
Laboratory Director/IML-Farmington, NM



CHAIN OF CUSTODY RECORD

Inter-Mountain Laboratories, Inc.

FAX

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

Date: 2/12/02

Number of pages:

To: Bob Wirtanen
Phillips Petroleum

From: Jeff Horta
IML - Farmington

Phone:

Phone: 800-828-1409

Fax: 599-3442

Fax: 505-325-4182

CC:

Remarks: ☐ Urgent ☒ For Your Review ☐ Reply ASAP ☐ Please Comment

Mr. Wirtanen,

Attached are the analytical results for the soil samples received Feb. 5, 2001. Please call if you have any questions. The hard copy of the report will be sent through the mail. Thank you for choosing Inter-Mountain Labs.

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

398-399-400-401

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 spectrophotometer. The potassium was extracted with ammonium acetate (ASA Mono. 9, 2nd Ed. 1982. 13-3.3) and analyzed by ICP.

Jeff Goats
Soil Scientist



Is same size

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

Page 1 of 2

Phillips Petroleum Co.

Client Project ID: 29-6 #238 SPILL

IML Project #0302S00398

Date Received: 02/05/02

Report Date: 02/11/02

Lab Id	Sample Id	Depths Inches	pH s.u.	Electrical Conductivity mmhos/cm	Saturation %	Ca meq/L	Mg meq/L	Na meq/L	SAR ratio	Nitrate - N mg/Kg	Phosphorous mg/Kg	Potassium mg/Kg
0302S00398	V.C. Sample A	N/A	7.5	0.48	57	3.5	0.78	0.53	0.4	3.9	16	490
0302S00399	V.C. Sample B	N/A	9.7	12	58	2.0	1.8	170	120	1.4	10	1100
0302S00400	Pond Sample A	N/A	7.4	0.55	86	3.4	0.70	0.91	0.6	12	19	600
0302S00401	Pond Sample B	N/A	8.4	5.7	104	1.0	1.2	64	60	2.0	20	850

$$= \frac{65.46}{17.99} = 3.64$$

10/25

20.64 = 7000

336

4

0001

367

symptoms

20



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

Page 2 of 2

Phillips Petroleum Co.

Farmington, NM

Client Project ID: 29-6 #238 SPILL

IML Project #0302S00398

Date Received: 02/05/02

Report Date: 02/11/02

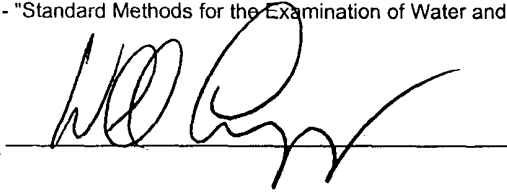
Lab Id	Sample Id	Depths Inches	Cation Exch.		Available		Exch.		Exch. Sodium	
			Capacity meq/100g	meq/100g	Sodium meq/L	meq/L	Sodium meq/100g	meq/100g	Percent %	Percent %
0302S00398	V.C. Sample A	N/A	25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0302S00399	V.C. Sample B	N/A	24	21	21	12	50			
0302S00400	Pond Sample A	N/A	40	0.2	0.2	0.1	0.3			
0302S00401	Pond Sample B	N/A	36	28	28	22	61			

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	Analytical Result	Units	Units	PQL	Method	Analysis		
						Date	Time	Init.
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:

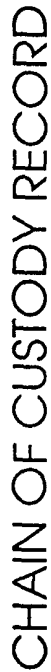
The enclosed report has been independently reviewed for compliance with IML-Farmington's Quality Assurance Plan and Data Quality Objectives. IML has examined all of the data in the report and has made every effort possible to make sure it is complete, accurate, and compliant. Quality Assurance data, 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

<input type="checkbox"/>	555 Absaraka Sheridan, Wyoming 82801 Telephone (307) 674-7506	<input type="checkbox"/>	1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	<input type="checkbox"/>	1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945	<input checked="" type="checkbox"/>	2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	<input type="checkbox"/>	11183 State Hwy. 30 College Station, TX 77845 Telephone (979) 776-8945
--------------------------	---	--------------------------	--	--------------------------	---	-------------------------------------	---	--------------------------	--

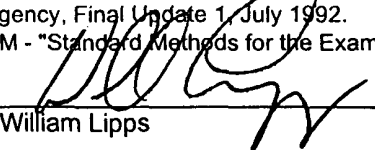
Client: Phillips Petroleum Co.
Sample ID: Pond 29-6 #238 Spill
Lab ID: 0302W00361
Matrix: Water
Condition: Cool/Intact

Date Received: 01/31/02
Date Reported: 02/12/02
Date Sampled: 01/30/02
Time Sampled: 1338

Parameter	Analytical Result	Units
General Parameters		
PH	8.1	s.u.
Electrical Conductivity	19,600	µmhos/cm
Solids - Total Dissolved	13,600	mg/L
Hardness (CaCO ₃)	195	mg/L
Alkalinity (CaCO ₃)	6,760	mg/L
Major Anions		
Bicarbonate (HCO ₃)	8,250	mg/L
Carbonate (CO ₃)	<1	mg/L
Chloride	6,750	mg/L
Nitrate (NO ₃)	<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 Protection Agency, Final Update 1, July 1992.
SM - "Standard Methods for the Examination of Water and Wastewater", APHA-AWWA-WEF, 19th Edition, 1995.

Reviewed By:

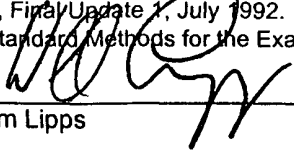

William Lipps

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

Parameter	Analytical Result	Units
General Parameters		
PH	7.6	s.u.
Electrical Conductivity	17,800	µmhos/cm
Solids - Total Dissolved	12,400	mg/L
Hardness (CaCO ₃)	162	mg/L
Alkalinity (CaCO ₃)	7,920	mg/L
Major Anions		
Bicarbonate (HCO ₃)	9,660	mg/L
Carbonate (CO ₃)	<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 Protection Agency, Final 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:

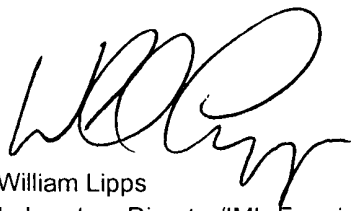
The samples were received for analysis at Inter-Mountain Laboratories (IML), Farmington, New Mexico. Enclosed are the results of these analyses.

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.

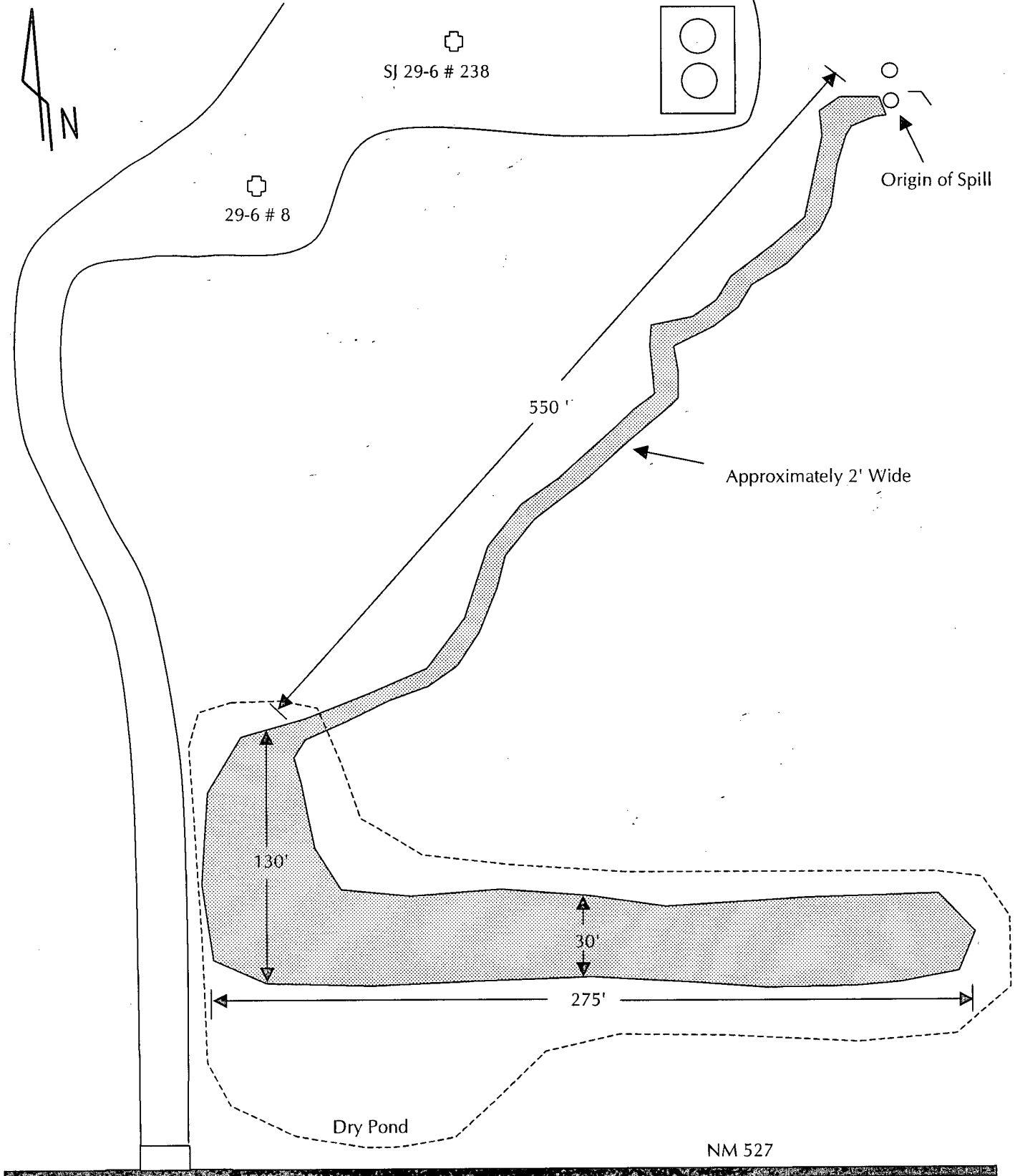
Unless otherwise noted, all results were obtained by approved methods. Practical Quantification Limits (PQLs) are based on statistically derived determinations, and upon any dilutions necessary to obtain proper method response without matrix interference.

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



William Lipps
Laboratory Director/IML-Farmington, NM

	LOCATION NAME:	SJ 29-6 # 238 Spill Assessment
	LEGAL LOCATION:	SW/4 Sec 1, T 29 N, R 6 W
	DATE DRAWN:	1/30/2002
	BY:	Virgil Chavez



n DG # 0203237788

02/01/02 12:25:11

Object-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

17

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
Organization: PHILLIPS PETROLEUM
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
Organization: PHILLIPS PETROLEUM
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:

02/01/02 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: Empl/Crew: Passenger:
FATALITIES: Empl/Crew: Passenger: Occupant:
EVACUATIONS: Who Evacuated: Radius/Area:
Damages:

Closure Type	Description of Closure	Hours Closed	Direction of Closure
Air:	N		
Road:	N		Major N Artery:
Waterway:	N		
Track:	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: DOI
State/Local: BLM,NM OIL CONSER.,NM LAND OFFICE,NM DEQ
State/Local On Scene:
State Agency Number: NO REPORT #

NOTIFICATIONS BY NRC

ATSDR CO	ATTN: JANET JONES	
01-FEB-02 12:24		(303) 6923023
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.

02/01/02 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
PLEASE VISIT OUR WEB SITE AT <http://www.nrc.uscg.mil>