

4R - 003

REPORTS

DATE:

June 6, 1991



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104171435

Collection Date	Collection Time	Collected by —Person/Agency
<u>9/10/17</u>	<u>1435</u>	<u>OLSON</u>

/OCD

SITE INFORMATION

Sample location Vermejo Park - Well 271-G

Collection Site Description Gas well

Township, Range, Section, Tract:

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ m membrane filter
☐ PF: Pre-filtered w/45 μ m membrane filter

- ☒ NA: No acid added ☐ A: 5ml conc. HNO₃ added
☐ A: HCL ☐ A: 4ml fuming HNO₃ added
☐ A: 2ml H₂SO₄/L added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
	Sample type
	Conductivity (Uncorrected) <u>1.1</u> mho
	Conductivity at 25° C <u>1.1</u> mho

- ☐ Bailed ☐ Pump
☐ Dipped ☐ Tap

pH(00400)

Water Temp. (00010)

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



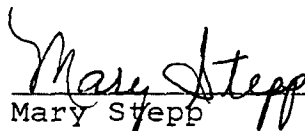
2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: OCD Vermejo Park
ID: 1435
SITE: Gas Well 271-G
LAB NO: F6175

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.77
Lab conductivity, umhos/cm.....	1050
Lab resistivity, ohm-m.....	9.49
Total dissolved solids (180), mg/l..	608
Total dissolved solids (calc), mg/l.	594
Total alkalinity as CaCO ₃ , mg/l.....	479
Total hardness as CaCO ₃ , mg/l.....	9.3
Sodium absorption ratio.....	35.5

	mg/l	meq/l
Bicarbonate as HCO ₃	584	9.58
Carbonate as CO ₃	0	0
Chloride.....	52.7	1.49
Sulfate.....	0.41	0.01
Calcium.....	3.72	0.19
Magnesium.....	0	0
Potassium.....	0.84	0.02
Sodium.....	249	10.8
Major cations.....		11
Major anions.....		11.1
Cation/anion difference.....		0.2 %


Mary Stepp
Lab Manager

80 11 00 01 JUN 91
OIL CONSERVATION DIVISION
RECEIVED



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML

Contract No. _____

OCD Sample No. 9104171055

Collection Date	Collection Time	Collected by —Person/Agency
<u>9/10/91</u>	<u>10.55</u>	<u>CLSON</u>
SITE INFORMATION		
Sample location <u>Vermejo Park - East Van Bremner Dry Lake</u>		
Collection Site Description <u>9104171055</u>		
		Township, Range, Section, Tract:
		+ + + +

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 2

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter
- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
- ☒ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
	Sample type
	Conductivity (Uncorrected)
	Conductivity at 25° C
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	
pH(00400)	
Water Temp. (00010)	

Very ALKALINE

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☒ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☒ 031	Sa	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☒ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☒ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 06

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCV Vermejo Park
ID: Dry Lake
SITE: E. Van Bremmer
LAB NO: F6170

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	9.45
Lab conductivity, umhos/cm.....	16500
Lab resistivity, ohm-m.....	0.606
Total dissolved solids (180), mg/l..	12300
Total dissolved solids (calc), mg/l.	12200
Total alkalinity as CaCO ₃ , mg/l.....	4590
Total hardness as CaCO ₃ , mg/l.....	70.1
Sodium absorption ratio.....	242

	mg/l	meq/l
Bicarbonate as HCO ₃	5600	91.8
Carbonate as CO ₃	0	0
Chloride.....	2710	76.4
Sulfate.....	2090	43.6
Calcium.....	15.6	0.78
Magnesium.....	7.56	0.62
Potassium.....	4.9	0.13
Sodium.....	4660	203
Major cations.....		204
Major anions.....		212
Cation/anion difference.....		1.83 %

Trace metals by AA (dissolved concentration), mg/l

	Analytical	Detection
	Result:	Limit:
Mercury (Hg).....	ND	<0.001



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 06

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: Dry Lake
SITE: E. Van Bremmer
LAB NO: F6170

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Trace metals by ICAP (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Arsenic (As).....	0.013	<0.005
Selenium (Se).....	0.007	<0.005

Trace metals by ICAP (total concentration), mg/l

	Analytical Result:	Detection Limit:
Silver (Ag).....	ND	<0.01
Aluminum (Al).....	9.2	<0.1
Arsenic (As).....	0.018	<0.005
Boron (B).....	0.16	<0.01
Barium (Ba).....	ND	<0.5
Beryllium (Be).....	ND	<0.005
Calcium (Ca).....	10.0	<0.005
Cadmium (Cd).....	ND	<0.005
Cobalt (Co).....	ND	<0.02
Chromium (Cr).....	ND	<0.02
Copper (Cu).....	0.03	<0.01
Iron (Fe).....	7.05	<0.05
Manganese (Mn).....	0.10	<0.02
Molybdenum (Mo).....	0.10	<0.02
Magnesium (Mg).....	7.8	<0.5
Sodium (Na).....	2177	<0.01
Nickel (Ni).....	0.02	<0.01
Lead (Pb).....	ND	<0.01
Antimony (Sb).....	ND	<0.05
Selenium (Se).....	0.007	<0.005
Silicon (Si).....	9.50	<0.02
Thallium (Tl).....	ND	<0.1
Vanadium (V).....	0.10	<0.001
Zinc (Zn).....	0.04	<0.01
Potassium (K).....	ND	<1.0

ND - Analyte "not detected" at the stated detection limit.

Mary Stepp
Lab Manager



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 07

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCV Vermejo Park
ID: Dry Lake
SITE: E. Van Bremmer
LAB NO: F6178 Lab Split

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	9.43
Lab conductivity, umhos/cm.....	17800
Lab resistivity, ohm-m.....	0.562
Total dissolved solids (180), mg/l..	12800
Total dissolved solids (calc), mg/l.	12300
Total alkalinity as CaCO ₃ , mg/l.....	4400
Total hardness as CaCO ₃ , mg/l.....	67.4
Sodium absorption ratio.....	246

	mg/l	meq/l
Bicarbonate as HCO ₃	5370	88
Carbonate as CO ₃	0	0
Chloride.....	2710	76.4
Sulfate.....	2270	47.2
Calcium.....	12.5	0.63
Magnesium.....	8.78	0.72
Potassium.....	4.85	0.12
Sodium.....	4650	202
Major cations.....		204
Major anions.....		212
Cation/anion difference.....		1.89 %

Trace metals by AA (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Mercury (Hg).....	ND	<0.001



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 07

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: Dry Lake
SITE: E. Van Bremmer
LAB NO: F6178 Lab Split

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Trace metals by ICAP (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Arsenic (As).....	0.013	<0.005
Selenium (Se).....	0.007	<0.005

Trace metals by ICAP (total concentration), mg/l

	Analytical Result:	Detection Limit:
Silver (Ag).....	ND	<0.01
Aluminum (Al).....	1.2	<0.1
Arsenic (As).....	0.015	<0.005
Boron (B).....	0.70	<0.01
Barium (Ba).....	ND	<0.5
Beryllium (Be).....	ND	<0.005
Calcium (Ca).....	6.7	<0.005
Cadmium (Cd).....	ND	<0.005
Cobalt (Co).....	ND	<0.02
Chromium (Cr).....	ND	<0.02
Copper (Cu).....	0.01	<0.01
Iron (Fe).....	0.83	<0.05
Manganese (Mn).....	ND	<0.02
Molybdenum (Mo).....	0.10	<0.02
Magnesium (Mg).....	6.7	<0.5
Sodium (Na).....	2890	<0.01
Nickel (Ni).....	0.01	<0.01
Lead (Pb).....	ND	<0.1
Antimony (Sb).....	ND	<0.05
Selenium (Se).....	0.007	<0.005
Silicon (Si).....	2.2	<0.02
Thallium (Tl).....	ND	<0.1
Vanadium (V).....	0.06	<0.05
Zinc (Zn).....	0.03	<0.01
Potassium (K).....	ND	<1.0

ND - Analyte "not detected" at the stated detection limit.

Mary Stepp
Lab Manager



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML

Contract No. _____

OCD Sample No. 910417140

Collection Date	Collection Time	Collected by — Person/Agency	
<u>9/10/17</u>	<u>1140</u>	<u>Boyer/OLSON</u>	OCD

SITE INFORMATION

Sample location Veranojo Park, Middle Van Bremmen Dry Lake

Collection Site Description

Township, Range, Section, Tract:

SEND
FINAL
REPORT
TO ↓

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ m membrane filter
☐ PF: Pre-filtered w/45 μ m membrane filter

- ☒ NA: No acid added
☐ A: 5ml conc. HNO₃ added
☐ A: HCL
☐ A: 4ml fuming HNO₃ added
☐ A: 2ml H₂SO₄/L added

FIELD COMMENTS:

SAMPLING CONDITIONS

- ☐ Bailed ☐ Pump
☐ Dipped ☐ Tap

Water level

Discharge

Sample type

pH(00400)

Conductivity (Uncorrected)

Water Temp. (00010)

Conductivity at 25° C

4 mho

4 mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAR	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



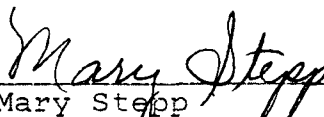
2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: OCD Vermejo Park
ID: Dry Lake
SITE: M. Van Bremmer
LAB NO: F6171

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	9.33
Lab conductivity, umhos/cm.....	17800
Lab resistivity, ohm-m.....	0.561
Total dissolved solids (180), mg/l..	13900
Total dissolved solids (calc), mg/l.	14200
Total alkalinity as CaCO ₃ , mg/l.....	5700
Total hardness as CaCO ₃ , mg/l.....	345
Sodium absorption ratio.....	124

	mg/l	meq/l
Bicarbonate as HCO ₃	6950	114
Carbonate as CO ₃	0	0
Chloride.....	1640	46.3
Sulfate.....	3720	77.5
Calcium.....	13.3	0.7
Magnesium.....	75.4	6.2
Potassium.....	23.1	0.59
Sodium.....	5310	231
Major cations.....		238
Major anions.....		238
Cation/anion difference.....		0.1 %


Mary Stepp
Lab Manager

80 11 00 01 JUN 16.
OIL CONSERVATION DIVISION
RECEIVED



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104170945

Collection Date	Collection Time	Collected by —Person/Agency	
910417	0945	DHLESON OLSON	/OCD

SITE INFORMATION

Sample location Vermejo Park - Van Bremner Stock Tank

Collection Site Description

NW NW 25-30N-18E

Township, Range, Section, Tract:

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter

- ☒ NA: No acid added
☐ A: 5ml conc. HNO₃ added
☐ A: HCL
☐ A: 4ml fuming HNO₃ added
☐ A: 2ml H₂SO₄/L added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Discharge
pH(00400)	Sample type
Water Temp. (00010)	Conductivity (Uncorrected)
	Conductivity at 25° C

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	<u>CATIONS/ANIONS</u>	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCB
ID: Vermejo Park
SITE: Van Bremmer Stocktank
LAB NO: F6168

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.29
Lab conductivity, umhos/cm.....	748
Lab resistivity, ohm-m.....	13.4
Total dissolved solids (180), mg/l..	430
Total dissolved solids (calc), mg/l.	408
Total alkalinity as CaCO ₃ , mg/l.....	320
Total hardness as CaCO ₃ , mg/l.....	71.7
Sodium absorption ratio.....	7.4

	mg/l	meq/l
Bicarbonate as HCO ₃	390	6.39
Carbonate as CO ₃	0	0
Chloride.....	20.3	0.57
Sulfate.....	25.9	0.54
Calcium.....	16	0.8
Magnesium.....	7.75	0.64
Potassium.....	2.55	0.07
Sodium.....	144	6.26
Major cations.....		7.76
Major anions.....		7.5
Cation/anion difference.....		1.69 %

Mary Stepp

Mary Stepp
Lab Manager

91 JUN 10 11 03
OIL CONSERVATION DIVISION
RECEIVED



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104170935

Collection Date	Collection Time	Collected by — Person/Agency
91104117	0935	OLSON

SITE INFORMATION

Sample location VERMILION PARK - Van Bremmer Water hole

Collection Site Description SW SE 30-30N-19E

Township, Range, Section, Tract:

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter

- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
☐ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS

- ☐ Bailed ☐ Pump
☒ Dipped ☐ Tap

pH(00400)

Water Temp. (00010)

Water level

Discharge

Sample type

Conductivity (Uncorrected)

Conductivity at 25° C

μ mho

μ mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCB
ID: Vermejo Park
SITE: Van Bremmer Waterhole
LAB NO: F6167

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.27
Lab conductivity, umhos/cm.....	758
Lab resistivity, ohm-m.....	13.2
Total dissolved solids (180), mg/l..	428
Total dissolved solids (calc), mg/l.	447
Total alkalinity as CaCO ₃ , mg/l.....	363
Total hardness as CaCO ₃ , mg/l.....	225
Sodium absorption ratio.....	2.76

	mg/l	meq/l
Bicarbonate as HCO ₃	443	7.26
Carbonate as CO ₃	0	0
Chloride.....	21.3	0.6
Sulfate.....	39.9	0.83
Calcium.....	44	2.2
Magnesium.....	27.9	2.3
Potassium.....	1.53	0.04
Sodium.....	95.1	4.14
Major cations.....		8.67
Major anions.....		8.69
Cation/anion difference.....		0.11 %


Mary Stepp
Lab Manager

91 JUN 11 03

RECEIVED
DIVISION OF CONSERVATION



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab

JML

Contract No.

OCD Sample No. 910417 1040

Collection Date	Collection Time	Collected by —Person/Agency	
9/10/17	1040	OLSON	/OCD
SITE INFORMATION			
Sample location Vermejo Park - Van Buren Canyon Windmill			
Collection Site Description SW SW 15-30N 18E			
			Township, Range, Section, Tract:
			+ + +

SEND
FINAL
REPORT
TO

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: /

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter

- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
☐ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Sample type
pH(00400)	Conductivity (Uncorrected) μ mho
Water Temp. (00010)	Conductivity at 25° C μ mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



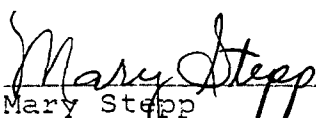
2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD
ID: Vermejo Park
SITE: Van Bremmer Windmill
LAB NO: F6169

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.34
Lab conductivity, umhos/cm.....	1070
Lab resistivity, ohm-m.....	9.33
Total dissolved solids (180), mg/l..	634
Total dissolved solids (calc), mg/l.	516
Total alkalinity as CaCO ₃ , mg/l.....	324
Total hardness as CaCO ₃ , mg/l.....	178
Sodium absorption ratio.....	4.43

	mg/l	meq/l
Bicarbonate as HCO ₃	396	6.49
Carbonate as CO ₃	0	0
Chloride.....	35.5	1
Sulfate.....	97.9	2.04
Calcium.....	20.1	1
Magnesium.....	31.1	2.56
Potassium.....	0.71	0.02
Sodium.....	136	5.92
Major cations.....		9.5
Major anions.....		9.53
Cation/anion difference.....		0.13 %


Mary Stepp
Lab Manager

60 11 00 01 JUN 16.
NOISIAID N
RE
OIL CONSERV



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab

IML

Contract No.

OCD Sample No. 9104171405

Collection Date	Collection Time	Collected by —Person/Agency	
9/10/17	1405	DLSON	/OCD
SITE INFORMATION			
Sample location VERMEJO PARK - Bubbling Springs			
Collection Site Description			
			Township, Range, Section, Tract:

SEND
FINAL
REPORT
TO ↓

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter

- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
☐ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Sample type
pH(00400)	Conductivity (Uncorrected)
Water Temp. (00010)	Conductivity at 25° C

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAR	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: OCD Vermejo Park
ID: 1405
SITE: Bubbling Springs
LAB NO: F6173

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.25
Lab conductivity, umhos/cm.....	448
Lab resistivity, ohm-m.....	22.3
Total dissolved solids (180), mg/l..	242
Total dissolved solids (calc), mg/l.	252
Total alkalinity as CaCO ₃ , mg/l.....	200
Total hardness as CaCO ₃ , mg/l.....	184
Sodium absorption ratio.....	0.872

	mg/l	meq/l
Bicarbonate as HCO ₃	244	4
Carbonate as CO ₃	0	0
Chloride.....	9.12	0.26
Sulfate.....	30.7	0.64
Calcium.....	50.7	2.53
Magnesium.....	14	1.15
Potassium.....	0.79	0.02
Sodium.....	27.2	1.18
Major cations.....		4.88
Major anions.....		4.89
Cation/anion difference.....		0.08 %


Mary Stepp
Lab Manager

91 JUN 10 AM 11 03
OIL CONSERVATION DIVISION
RECEIVED



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104171155

Collection Date	Collection Time	Collected by—Person/Agency	
<u>910417</u>	<u>1155</u>	<u>OLSON</u>	/OCD

SITE INFORMATION

Sample location Vermejo Park - Mary's Lake

Collection Site Description (at Cabin)

Township, Range, Section, Tract:

SEND
FINAL
REPORT
TO ↓

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 2

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ m membrane filter
☐ PF: Pre-filtered w/45 μ m membrane filter

- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
☒ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS

- ☐ Bailed ☐ Pump
☐ Dipped ☐ Tap

pH(00400)

Water Temp. (00010)

Water level

Discharge

Sample type

Conductivity (Uncorrected)

Conductivity at 25° C

μ mho

μ mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☒ 028	Hg/L	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☒ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☒ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☒ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 06

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: 1155
SITE: Mary's Lake
LAB NO: F6172

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.50
Lab conductivity, umhos/cm.....	847
Lab resistivity, ohm-m.....	11.8
Total dissolved solids (180), mg/l..	516
Total dissolved solids (calc), mg/l.	475
Total alkalinity as CaCO ₃ , mg/l.....	416
Total hardness as CaCO ₃ , mg/l.....	78.6
Sodium absorption ratio.....	8.29

	mg/l	meq/l
Bicarbonate as HCO ₃	508	8.32
Carbonate as CO ₃	0	0
Chloride.....	27.4	0.77
Sulfate.....	3.7	0.08
Calcium.....	8.99	0.45
Magnesium.....	13.7	1.12
Potassium.....	2.62	0.07
Sodium.....	169	7.35
Major cations.....		8.99
Major anions.....		9.17
Cation/anion difference.....		0.98 %

Trace metals by AA (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Mercury (Hg).....	ND	<0.001



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 06

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: 1155
SITE: Mary's Lake
LAB NO: F6172

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Trace metals by ICAP (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Arsenic (As).....	ND	<0.005
Selenium (Se).....	ND	<0.005

Trace metals by ICAP (total concentration), mg/l

	Analytical Result:	Detection Limit:
Silver (Ag).....	ND	<0.01
Aluminum (Al).....	1.6	<0.1
Arsenic (As).....	ND	<0.005
Boron (B).....	0.10	<0.01
Barium (Ba).....	ND	<0.5
Beryllium (Be).....	ND	<0.005
Calcium (Ca).....	16	<0.005
Cadmium (Cd).....	ND	<0.005
Cobalt (Co).....	ND	<0.02
Chromium (Cr).....	ND	<0.02
Copper (Cu).....	0.01	<0.01
Iron (Fe).....	1.53	<0.05
Manganese (Mn).....	0.04	<0.02
Molybdenum (Mo).....	ND	<0.02
Magnesium (Mg).....	15.9	<0.05
Sodium (Na).....	185	<0.01
Nickel (Ni).....	0.02	<0.01
Lead (Pb).....	ND	<0.1
Antimony (Sb).....	ND	<0.05
Selenium (Se).....	ND	<0.005
Silicon (Si).....	2.30	<0.02
Thallium (Tl).....	ND	<0.1
Vanadium (V).....	ND	<0.05
Zinc (Zn).....	0.04	<0.01
Potassium (K).....	1.8	<1.0

ND - Analyte "not detected" at the stated detection limit.

Mary Stepp
Lab Manager



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 07

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: 1155
SITE: Mary's Lake
LAB NO: F6179 Lab Split

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.51
Lab conductivity, umhos/cm.....	848
Lab resistivity, ohm-m.....	11.8
Total dissolved solids (180), mg/l..	486
Total dissolved solids (calc), mg/l.	496
Total alkalinity as CaCO ₃ , mg/l.....	433
Total hardness as CaCO ₃ , mg/l.....	98
Sodium absorption ratio.....	7.55

	mg/l	meq/l
Bicarbonate as HCO ₃	529	8.67
Carbonate as CO ₃	0	0
Chloride.....	27.4	0.77
Sulfate.....	3.29	0.07
Calcium.....	18.1	0.9
Magnesium.....	12.8	1.06
Potassium.....	2.69	0.07
Sodium.....	172	7.47
Major cations.....		9.5
Major anions.....		9.51
Cation/anion difference.....		0.03 %

Trace metals by AA (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Mercury (Hg).....	ND	<0.001



OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 1 AM 11 07

2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD Vermejo Park
ID: 1155
SITE: Mary's Lake
LAB NO: F6179 Lab Split

DATE REPORTED: 06/27/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Trace metals by ICAP (dissolved concentration), mg/l

	Analytical Result:	Detection Limit:
Arsenic (As).....	ND	<0.005
Selenium (Se).....	ND	<0.005

Trace metals by ICAP (total concentration), mg/l

	Analytical Result:	Detection Limit:
Silver (Ag).....	ND	<0.01
Aluminum (Al).....	1.4	<0.1
Arsenic (As).....	ND	<0.005
Boron (B).....	0.09	<0.01
Barium (Ba).....	ND	<0.5
Beryllium (Be).....	ND	<0.005
Calcium (Ca).....	12.4	<0.005
Cadmium (Cd).....	ND	<0.005
Cobalt (Co).....	ND	<0.02
Chromium (Cr).....	ND	<0.02
Copper (Cu).....	ND	<0.01
Iron (Fe).....	1.24	<0.05
Manganese (Mn).....	0.03	<0.02
Molybdenum (Mo).....	ND	<0.02
Magnesium (Mg).....	15.6	<0.5
Sodium (Na).....	179	<0.01
Nickel (Ni).....	0.01	<0.01
Lead (Pb).....	ND	<0.1
Antimony (Sb).....	ND	<0.05
Selenium (Se).....	ND	<0.005
Silicon (Si).....	0.6	<0.02
Thallium (Tl).....	ND	<0.1
Vanadium (V).....	ND	<0.05
Zinc (Zn).....	0.01	<0.01
Potassium (K).....	2.0	<1.0

ND - Analyte "not detected" at the stated detection limit.

Mary Stepp
Lab Manager



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML

Contract No. _____

OCD Sample No. 9104171515

Collection Date	Collection Time	Collected by —Person/Agency	
<u>910417</u>	<u>1515</u>	<u>OLSON</u>	/OCD
SITE INFORMATION			
Sample location <u>VERMEJO PARK - ADAMS LAKE</u>			
Collection Site Description			
			Township, Range, Section, Tract:
			+ + +

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO ↓ Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 μ membrane filter
☐ **PF:** Pre-filtered w/45 μ membrane filter

- ☒ **NA:** No acid added
☐ **A:** 5ml conc. HNO₃ added
☐ **A:** HCL
☐ **A:** 4ml fuming HNO₃ added
☐ **A:** 2ml H₂SO₄/L added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Sample type
pH(00400)	Conductivity (Uncorrected) <u> </u> mho
Water Temp. (00010)	Conductivity at 25° C <u> </u> mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



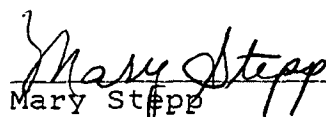
2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: OCD Vermejo Park
ID: 1515
SITE: Adams Lake
LAB NO: F6177

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.25
Lab conductivity, umhos/cm.....	341
Lab resistivity, ohm-m.....	29.3
Total dissolved solids (180), mg/l..	166
Total dissolved solids (calc), mg/l.	187
Total alkalinity as CaCO ₃ , mg/l.....	158
Total hardness as CaCO ₃ , mg/l.....	100
Sodium absorption ratio.....	1.65

	mg/l	meq/l
Bicarbonate as HCO ₃	193	3.17
Carbonate as CO ₃	0	0
Chloride.....	14.2	0.4
Sulfate.....	3.5	0.07
Calcium.....	22.6	1.13
Magnesium.....	10.7	0.88
Potassium.....	2.5	0.06
Sodium.....	38.1	1.66
Major cations.....		3.73
Major anions.....		3.64
Cation/anion difference.....		1.18 %


Mary Stepp
Lab Manager

30 11 00 01 NOV 16.

RECEIVED
OIL CONSERVATION DIVISION



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104171505

Collection Date	Collection Time	Collected by—Person/Agency	
910417	1505	OLSON	/OCD
SITE INFORMATION			
Sample location <u>Vermejo Park - Bartlett Lake</u>			
Collection Site Description			
			Township, Range, Section, Tract:
			+ + +

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ **NF:** Whole sample (Non-filtered)
☐ **F:** Filtered in field with 0.45 μ membrane filter
☐ **PF:** Pre-filtered w/45 μ membrane filter
- ☒ **NA:** No acid added
☐ **A:** HCL
☐ **A:** 2ml H₂SO₄/L added
- ☐ **A:** 5ml conc. HNO₃ added
☐ **A:** 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS	Water level
	Discharge
☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Sample type
pH(00400)	Conductivity (Uncorrected) //mho
Water Temp. (00010)	Conductivity at 25° C μ mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: OCD Vermejo Park
ID: 1505
SITE: Bartlett Lake
LAB NO: F6176

DATE REPORTED: 06/06/91
DATE RECEIVED: 05/02/91
DATE COLLECTED: 04/17/91

Lab pH (s.u.).....	8.28
Lab conductivity, umhos/cm.....	367
Lab resistivity, ohm-m.....	27.2
Total dissolved solids (180), mg/l..	180
Total dissolved solids (calc), mg/l.	188
Total alkalinity as CaCO ₃ , mg/l.....	159
Total hardness as CaCO ₃ , mg/l.....	110
Sodium absorption ratio.....	1.44

	mg/l	meq/l
Bicarbonate as HCO ₃	195	3.19
Carbonate as CO ₃	0	0
Chloride.....	16.2	0.46
Sulfate.....	4.32	0.09
Calcium.....	21.2	1.06
Magnesium.....	13.9	1.14
Potassium.....	1.62	0.04
Sodium.....	34.8	1.51
Major cations.....		3.76
Major anions.....		3.73
Cation/anion difference.....		0.28 %

Mary Stepp

Mary Stepp
Lab Manager

91 JUN 10 AM 11 03
OIL CONSERVATION DIVISION
RECEIVED



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

ANALYSIS REQUEST FORM

Contract Lab IML Contract No. _____

OCD Sample No. 9104171415

Collection Date	Collection Time	Collected by —Person/Agency	/OCD
91/04/17	1415	OLSON	
SITE INFORMATION			
Sample location <u>Vermeja Park - Merrick Lake</u>			
Collection Site Description <u>ARE</u>			
			Township, Range, Section, Tract:
			+ + +

SEND ENVIRONMENTAL BUREAU
FINAL NM OIL CONSERVATION DIVISION
REPORT PO Box 2088
TO Santa Fe, NM 87504-2088

SAMPLE FIELD TREATMENT — Check proper boxes

No. of samples submitted: 1

- ☒ NF: Whole sample (Non-filtered)
☐ F: Filtered in field with 0.45 μ membrane filter
☐ PF: Pre-filtered w/45 μ membrane filter
- ☒ NA: No acid added
☐ A: HCL
☐ A: 2ml H₂SO₄/L added
- ☐ A: 5ml conc. HNO₃ added
☐ A: 4ml fuming HNO₃ added

FIELD COMMENTS:

SAMPLING CONDITIONS ☐ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level
	Discharge
pH(00400)	Sample type
Water Temp. (00010)	Conductivity (Uncorrected)
	Conductivity at 25° C <u> </u> mho

LAB ANALYSIS REQUESTED:

ITEM	DESC	METHOD	ITEM	DESC	METHOD	ITEM	DESC	METHOD
☐ 001	VOA	8020	☐ 013	PHENOL	604	☐ 026	Cd	7130
☐ 002	VOA	602	☐ 014	VOC	8240	☐ 027	Pb	7421
☐ 003	VOH	8010	☐ 015	VOC	624	☐ 028	Hg(L)	7470
☐ 004	VOH	601	☐ 016	SVOC	8250	☐ 031	Se	7740
☐ 005	SUITE	8010-8020	☐ 017	SVOC	625	☐ 032	ICAP	6010
☐ 006	SUITE	601-602	☐ 018	VOC	8260	☒ 033	CATIONS/ANIONS	
☐ 007	HEADSPACE		☐ 019	SVOC	8270	☐ 034	N SUITE	
☐ 008	PAH	8100	☐ 020	O&G	9070	☐ 035	NITRATE	
☐ 009	PAH	610	☐ 022	AS	7060	☐ 036	NITRITE	
☐ 010	PCB	8080	☐ 023	Ba	7080	☐ 037	AMMONIA	
☐ 011	PCB	608	☐ 024	Cr	7190	☐ 038	TKN	
☐ 012	PHENOL	8040	☐ 025	Cr6	7198	☐	OTHER	



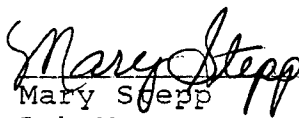
2506 West Main Street
Farmington, New Mexico 87401
Tel. (505) 326-4737

CLIENT: NMOCD
ID: 1415
SITE: Merrick Lake
LAB NO: 6174

DATE REPORTED: 06/06/91
DATE RECEIVED: 03/28/91
DATE COLLECTED: 03/27/91

Lab pH (s.u.).....	8.24
Lab conductivity, umhos/cm.....	357
Lab resistivity, ohm-m.....	28
Total dissolved solids (180), mg/l..	176
Total dissolved solids (calc), mg/l.	202
Total alkalinity as CaCO ₃ , mg/l.....	147
Total hardness as CaCO ₃ , mg/l.....	116
Sodium absorption ratio.....	1.28

	mg/l	meq/l
Bicarbonate as HCO ₃	179	2.93
Carbonate as CO ₃	0	0
Chloride.....	6.08	0.17
Sulfate.....	32.3	0.67
Calcium.....	35.3	1.76
Magnesium.....	6.83	0.56
Potassium.....	1.94	0.05
Sodium.....	31.6	1.37
Major cations.....		3.75
Major anions.....		3.78
Cation/anion difference.....		0.39 %


Mary Stepp
Lab Manager

30 11 00 01 16

NOISIAID N
DIVISION