

NM2 - 1

**MONITORING
REPORTS
YEAR(S):**

2003-2000

Koch Exploration Company, LLC

P.O. Box 489, Aztec, New Mexico 87410

Phone (505) 334-9111

November 5, 2003

Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Attn: Denny Foust

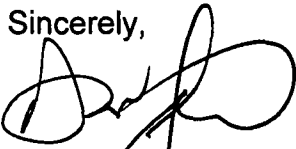
Re: 2003 Annual Pond Inspection and Water Analysis

Dear Mr. Foust:

Enclosed you will find water analysis from Koch Evaporation Pond 1 and Koch Evaporation Pond 2, for the year 2003, as required from us on an annual basis. During our weekly inspections throughout the year, for both ponds, we have not encountered any sick or dead birds or wildlife. If you would like to inspect our reports for each week on either or both of the evaporation ponds, they will be available, upon request at the Koch Exploration Company, LLC office located at 610 South Main in Aztec.

If you have any questions or comments concerning the water analysis, please feel free to contact me at (505) 334-9111 or my mobile phone at (505) 320-0819.

Sincerely,



Don Johnson
Operations Manager

Cc: Roger Anderson
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RECEIVED

NOV 06 2003

OIL CONSERVATION
DIVISION

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

October 21, 2003

Don Johnson
Koch Exploration Company, LLC
610 S. Main Avenue
P.O. Box 489
Aztec, NM 87410
TEL: (505) 334-9111
FAX (505) 334-1688

RE: Koch Ponds

Order No.: 0310021

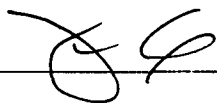
Dear Don Johnson:

iiná bá, Ltd. received 2 samples on 10/10/2003 for the analyses presented in the following report.

This certificate of analysis includes the Analytical Report(s) for the sample(s) received by the laboratory. A Quality Control Summary Report, the Sample Receipt Checklist and an executed Chain of Custody are included as an addendum to this report.

Should you have any questions regarding this certificate of analysis, please contact the laboratory at your convenience.

Report Approved By: _____



David Cox
Laboratory Manager

Heidi Reese
Quality Assurance Officer

This certificate of analysis and respective material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the person responsible for delivering this to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify the laboratory immediately at 505-327-1072.

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá, Ltd.

Date: 21-Oct-03

CLIENT: Koch Exploration Company, LLC

Project: Koch Ponds

Lab Order: 0310021

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

Analytical comments for METHOD 8015GRO_W, SAMPLE 0310021-001A: Sample was analyzed at a twenty-fold dilution (D-20X) due to excessive foaming.

Analytical comments for METHOD 8015GRO_W, SAMPLE 0310021-002A: Sample was analyzed at a twenty-fold dilution (D-20X) due to excessive foaming.

Cation-Anion Balance; 0310021-001B: Koch Pond #1

Total Cation-Anion = 2091.45 meq/L

Difference Cation-Anion = 46.68 meq/L

% Difference = 2.2 %

Cation-Anion Balance; 0310021-002B: Koch Pond #2

Total Cation-Anion = 3419.38 meq/L

Difference Cation-Anion = 174.88 meq/L

% Difference = 5.1 %

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: 21-Oct-03

CLIENT: Koch Exploration Company, LLC
Work Order: 0310021
Project: Koch Ponds
Lab ID: 0310021-001A

Client Sample Info: Koch Ponds
Client Sample ID: Pond #1
Collection Date: 10/9/2003 3:40:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015B				Analyst: JEM
T/R Hydrocarbons: C6-C10	ND	900		µg/L	20	10/20/2003

Qualifiers: ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
H - Parameter exceeded Maximum Allowable Holding Time

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

Page 1 of 4

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: 21-Oct-03

CLIENT: Koch Exploration Company, LLC
Work Order: 0310021
Project: Koch Ponds
Lab ID: 0310021-001B

Client Sample Info: Koch Ponds
Client Sample ID: Pond #1
Collection Date: 10/9/2003 3:40:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B		(SW6010B)		Analyst: DWC
Sodium	23300	65.0		mg/L	500	10/20/2003
Iron	ND	18.0		mg/L	100	10/20/2003
Magnesium	71.9	1.30		mg/L	100	10/20/2003
Calcium	8.60	4.10		mg/L	100	10/20/2003
Potassium	99.6	11.0		mg/L	100	10/20/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	7450	250		mg/L	2500	10/10/2003
Sulfate	1160	250		mg/L	2500	10/10/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO ₃)	16521	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Carbonate (As CaCO ₃)	33846	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Total (As CaCO ₃)	50367	5		mg/L CaCO ₃	1	10/16/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO ₃)	320	1		mg/L	1	10/21/2003
PH		E150.1				Analyst: HNR
pH	9.56	2.00		pH units	1	10/10/2003
Temperature	23.0	0		Deg C	1	10/10/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.149	0.001		ohm-m	1	10/10/2003
SALINITY		M2520 B.				Analyst: HNR
Salinity	46	0.10		Sal	1	10/10/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.066	0.001		Units	1	10/10/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	67000	40		mg/L	1	10/13/2003
TOTAL DISSOLVED SOLIDS		M1030F				Analyst: HNR
Total Dissolved Solids (Calculated)	62300	5		mg/L	1	10/21/2003

Qualifiers: ND - Not Detected at the Practical Quantitation Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit R - RPD outside accepted precision limits
B - Analyte detected in the associated Method Blank E - Value above Upper Quantitation Limit - UQL
H - Parameter exceeded Maximum Allowable Holding Time

Page 2 of 4

MAINTAINING HARMONY BETWEEN MAN AND HIS ENVIRONMENT

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: 21-Oct-03

CLIENT: Koch Exploration Company, LLC
Work Order: 0310021
Project: Koch Ponds
Lab ID: 0310021-002A

Client Sample Info: Koch Ponds
Client Sample ID: Pond #2
Collection Date: 10/9/2003 1:14:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS		SW8015B				Analyst: JEM
T/R Hydrocarbons: C6-C10	ND	900		µg/L	20	10/20/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

H - Parameter exceeded Maximum Allowable Holding Time

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

E - Value above Upper Quantitation Limit - UQL

Page 3 of 4

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: 21-Oct-03

CLIENT: Koch Exploration Company, LLC
Work Order: 0310021
Project: Koch Ponds
Lab ID: 0310021-002B

Client Sample Info: Koch Ponds
Client Sample ID: Pond #2
Collection Date: 10/9/2003 1:14:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B		(SW6010B)		Analyst: DWC
Calcium	6.34	0.820		mg/L	20	10/20/2003
Iron	ND	3.60		mg/L	20	10/20/2003
Magnesium	107	0.260		mg/L	20	10/20/2003
Potassium	180	2.20		mg/L	20	10/20/2003
Sodium	41000	65.0		mg/L	500	10/20/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	8260	250		mg/L	2500	10/10/2003
Sulfate	298	250		mg/L	2500	10/10/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO ₃)	16273	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Carbonate (As CaCO ₃)	66992	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	10/16/2003
Alkalinity, Total (As CaCO ₃)	83265	5		mg/L CaCO ₃	1	10/16/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO ₃)	460	1		mg/L	1	10/21/2003
PH		E150.1				Analyst: HNR
pH	9.64	2.00		pH units	1	10/10/2003
Temperature	23.0	0		Deg C	1	10/10/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.116	0.001		ohm-m	1	10/10/2003
SALINITY		M2520 B.				Analyst: HNR
Salinity	61	0.10		Sal	1	10/10/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.100	0.001		Units	1	10/10/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	105000	40		mg/L	1	10/13/2003
TOTAL DISSOLVED SOLIDS		M1030F				Analyst: HNR
Total Dissolved Solids (Calculated)	99800	5		mg/L	1	10/21/2003

Qualifiers: ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
H - Parameter exceeded Maximum Allowable Holding Time

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

Page 4 of 4

MAINTAINING HARMONY BETWEEN MAN AND HIS ENVIRONMENT

iiiná bá, Ltd.

Sample Receipt Checklist

Client Name: KOC1001

Date and Time Received:

10/10/2003

Work Order Number: 0310021

Received by: HNR

Checklist completed by:

Heidi R
Signature

10/10/03
Date

Reviewed by:

DWC
Initials

10/16/03
Date

Matrix:

Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☒	

Adjusted? _____ Checked by: _____

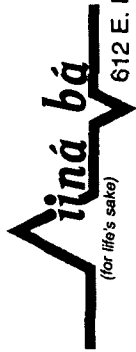
Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: Geo water samples had a pH 7.2

Corrective Action: _____



612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
Phone: (505) 327-1072 • Fax: (505) 327-1496

CHAIN OF CUSTODY RECORD

3685

Page _____ of _____

Report to: Don Johnson		PO No.:		Job No.:	
Company: Koch Exploration		Name:			
Address: Box 489		Company:		SANE	
City: Aztec N. Mex 87410		Address:			
Phone: 334-9111		Fax:		City:	
Turnaround Time: 10 days (normal) ☒ 24-48 hours (100%) ☐ 3-5 days (50%) ☐		Sample Integrity Intact ☒ On Ice ☒		Subcontract Yes ☐ No ☒	
Email:		Analysis Requested			
RESULTS TO:		SEND INVOICE TO:		CONTAINERS:	
REPORT		T.H. GOSWAMI		CATION	
Sampling Location: Koch Panel's 1+2		Sample Identification		Lab ID	
Panel # 1		Date: 10/9 1540		0310021-001	
Panel # 2		Date: 10/9 1347		✓ -002	
Relinquished by: Kenneth Leigh		Date/Time: 10-10-03/9:07		Received by: Heidi R	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Comments:					

Koch Exploration Company, LLC

P.O. Box 489, Aztec, New Mexico 87410

Phone (505) 334-9111

RECEIVED

NOV 22 2002

Environmental Bureau
Oil Conservation Division

November 14, 2002

Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Attn: Denny Foust

Re: 2002 Annual Pond Inspection and Water Analysis

Dear Mr. Foust:

Enclosed you will find water analysis from Koch Evaporation Pond 1 and Koch Evaporation Pond 2, for the year 2002, as required from us on an annual basis. During our weekly inspections throughout the year, for both ponds, we have not encountered any sick or dead birds or wildlife. If you would like to inspect our reports for each week on either or both of the evaporation ponds, they will be available, upon request at the Koch Exploration Company, LLC office located at 610 South Main in Aztec.

If you have any questions or comments concerning these water analysis, please feel free to contact me at (505) 334-9111 or my mobile phone at (505) 320-0819.

Sincerely,



Don Johnson
Operations Manager

Cc: Roger Anderson
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072
November 11, 2002

iiiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

Don Johnson
Koch Exploration Company, LLC
610 S. Main Avenue
P.O. Box 489
Aztec, NM 87410

TEL: (505) 334-9111
FAX (505) 334-1688

RE: Koch Evaporation Pond #2

Order No.: 0210023

Dear Don Johnson:

iiina ba, Ltd. received 1 sample on 10/15/2002 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

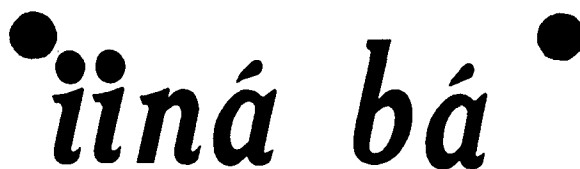
Sincerely,



David Cox

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072



P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

iina ba, Ltd.

Date: 11-Nov-02

CLIENT: Koch Exploration Company, LLC

Project: Koch Evaporation Pond #2

Lab Order: 0210023

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

Cation-Anion Balance 0210023-001B; Koch Pond #2

Total Cation-Anion = 2253.65 meq/L

Difference Cation-Anion = 203.79 meq/L

% Difference = 9.0 %

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072



P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

Date: 11-Nov-02

CLIENT: Koch Exploration Company, LLC
Work Order: 0210023
Project: Koch Evaporation Pond #2
Lab ID: 0210023-001A

Client Sample Info: Koch Exploration
Client Sample ID: Koch Evap. Pond #2
Collection Date: 10/14/2002 2:55:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
TPH, T/R		E418.1		(SW3550)		Analyst: JEM
Petroleum Hydrocarbons, T/R	ND	1.1		mg/L	1	11/7/2002

Qualifiers: ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

Page 1 of 2

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

Date: 11-Nov-02

CLIENT: Koch Exploration Company, LLC
Work Order: 0210023
Project: Koch Evaporation Pond #2
Lab ID: 0210023-001B

Client Sample Info: Koch Exploration
Client Sample ID: Koch Evap. Pond #2
Collection Date: 10/14/2002 2:55:00 PM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B		Analyst: DJC		
Calcium	11.7	1.00		mg/L	100	10/17/2002
Iron	0.27	0.24		mg/L	10	10/17/2002
Magnesium	94.6	0.70		mg/L	100	10/17/2002
Potassium	112	6.20		mg/L	100	10/17/2002
Sodium	28000	3.60		mg/L	200	10/17/2002
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: HNR		
Chloride	4540	249		mg/L	2490	10/16/2002
Sulfate	13.2	4.90		mg/L	49	10/16/2002
ALKALINITY, TOTAL		M2320 B		Analyst: HNR		
Alkalinity, Bicarbonate (As CaCO ₃)	20326	5		mg/L CaCO ₃	1	10/23/2002
Alkalinity, Carbonate (As CaCO ₃)	33814	5		mg/L CaCO ₃	1	10/23/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	10/23/2002
Alkalinity, Total (As CaCO ₃)	54140	5		mg/L CaCO ₃	1	10/23/2002
HARDNESS, TOTAL		M2340 B		Analyst: HNR		
Hardness (As CaCO ₃)	420	1		mg/L	1	10/23/2002
PH		E150.1		Analyst: HNR		
pH	9.71	2.00		pH units	1	10/16/2002
Temperature	16.0	0		Deg C	1	10/16/2002
RESISTIVITY (@ 25 DEG. C)		M2510 C		Analyst: HNR		
Resistivity	0.157	0.001		ohm-m	1	10/16/2002
SALINITY		M2520 B.		Analyst: HNR		
Salinity	43.4	0.100		Sal	1	10/16/2002
SPECIFIC GRAVITY		M2710 F		Analyst: HNR		
Specific Gravity	1.068	0.001		Units	1	10/16/2002
TOTAL DISSOLVED SOLIDS		E160.1		Analyst: HNR		
Total Dissolved Solids (Residue, Filterable)	68000	40		mg/L	1	10/17/2002
TOTAL DISSOLVED SOLIDS		CALC		Analyst: HNR		
Total Dissolved Solids (Calculated)	65300	5		mg/L	1	10/23/2002

Qualifiers: ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

Page 2 of 2

MAINTAINING HARMONY BETWEEN MAN AND HIS ENVIRONMENT



1135

Date: 10-14-02

Page: 1 of 1

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client



P.O. Box 489
Aztec, NM 87410

November 19, 2001

Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

ATTN: Mr. Denny Foust

RE: 2001 Yearly Pond Inspection & Water Analysis

Dear Mr. Foust:

Enclosed you will find water analysis from Pond #1 and Pond #2 for the year of 2001 that is required from us on a yearly basis. During our weekly inspections throughout the year on both ponds we have not encountered any sick or dead birds or wildlife. If you would like to inspect our reports for each week on either or both of the ponds, they will be available upon request at the Koch Exploration Company Office located at 610 South Main in Aztec.

If you have any questions or comments concerning these water analysis, please feel free to contact me at (505)-334-9111 or my mobile phone at (505)-320-0819.

Sincerely,

A handwritten signature in black ink, appearing to read 'Don Johnson', written over the printed name.

Don Johnson
Operations Manager
Koch Exploration Company

cc: Roger Anderson
Oil Conservation Division
~~2040 South Pacheco~~ 1220 South ST Francis Drive
Santa Fe, NM 87505

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Nov-01

Client:	Koch Exploration	Client Sample Info:	Kock Evap. Pond #2
Work Order:	0110042	Client Sample ID:	Water Sample
Lab ID:	0110042-01A	Matrix:	AQUEOUS
Project:	Kock Evap. Pond #2	Collection Date:	10/22/2001 9:45:00 AM
		COC Record:	11634

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY						
		E300				Analyst: HR
Chloride	3060	120		mg/L	2010	10/29/2001
Sulfate	ND	8		mg/L	100	10/29/2001
ICP METALS, DISSOLVED						
		SW6010B				Analyst: DC
Calcium 317.933	13.1	2		mg/L	196	11/19/2001
Iron 259.939	ND	0.39		mg/L	196	11/19/2001
Magnesium 285.213	61	1.4		mg/L	196	11/19/2001
Potassium 766.490	62.7	12		mg/L	196	11/19/2001
Sodium 589.592	16900	3.7		mg/L	196	11/19/2001
ALKALINITY, TOTAL						
		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO ₃)	8710	5		mg/L CaCO ₃	1	10/25/2001
Alkalinity, Carbonate (As CaCO ₃)	24900	5		mg/L CaCO ₃	1	10/25/2001
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	10/25/2001
Alkalinity, Total (As CaCO ₃)	33600	5		mg/L CaCO ₃	1	10/25/2001
HARDNESS, TOTAL						
		M2340 B				Analyst: HR
Hardness (As CaCO ₃)	284	1		mg/L	1	11/15/2001
PH						
		E150.1				Analyst: DC
pH	9.49	2		pH units	1	10/24/2001
Temperature	26			deg. C	1	10/24/2001
RESISTIVITY (@ 25 DEG. C)						
		M2510 C				Analyst: DC
Resistivity	0.219	0.001		ohm-m	1	10/24/2001
SALINITY						
		M2520 B.				Analyst: DM
Salinity	28	1			1	11/16/2001
SPECIFIC GRAVITY						
		M2710 F				Analyst: HR
Specific Gravity	1.040	0.001		Units	1	10/25/2001
TOTAL DISSOLVED SOLIDS						
		E160.1				Analyst: HR
Total Dissolved Solids (Residue, Filterable)	41300	40		mg/L	1	10/25/2001
TOTAL DISSOLVED SOLIDS						
		CALC				Analyst: HR
Total Dissolved Solids (Calculated)	40300	5		mg/L	1	11/15/2001
TPH, T/R						
		E418.1				Analyst: DM
Petroleum Hydrocarbons, T/R	ND	1		mg/L	1	11/2/2001

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

11634

Date: 10-22-01

Page: _____ of _____

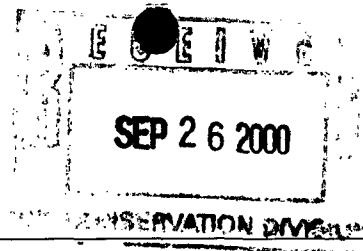
[illegible]

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

To Re-order Call 325-9600 or Fax 325-9764 **signature** FORM # 01



KOCH EXPLORATION COMPANY



September 22, 2000

Ms Martyne J. Kieling
Environmental Geologist
New Mexico Oil Conversation Division
2040 S. Pacheco Street
Santa Fe, NM 87505

RE: OCD Rule 711 Permit Approval NM-02-0001 and NM-02-0008
Koch Exploration Company
Centralized Evaporation Pond #1 and #2
NE/4 NW/4 Sections 31, T32N-R8W (Pond 2)
SE/4 NW/4 Section 26, T32N-R9W (Pond 1)

Dear Ms Kieling:

Enclosed please find executed copies of the referenced permits. While Koch Exploration has executed the permits and agrees with the conditions, we are concerned with the condition to test the O₂ content of the pond water weekly, the initial permit required monthly testing. Since the ponds were placed in service Koch has taken monthly O₂ measurements and tested weekly for H₂S. During this time we have observed that the O₂ is within acceptable levels and have not detected any H₂S. With your permission we would like to ask for a waiver on weekly O₂ testing and to continue the current monthly O₂ testing as required in the initial permit.

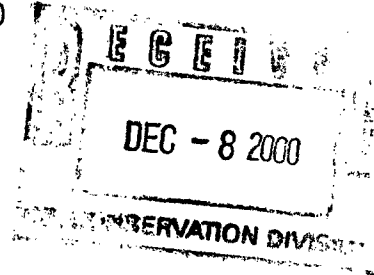
We appreciate your attention to this request and look forward to your reply.

Sincerely,

G. S. Bennett
Chief Engineer



P.O. Box 489
Aztec, NM 87410



December 6, 2000

Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

ATTN: Mr. Denny Foust

RE: 2000 Yearly Pond Inspection & Water Analysis

Dear Mr. Foust:

Enclosed you will find water analysis from Pond #1 and Pond #2 for the year of 2000 that is required from us on a yearly basis. During our weekly inspections throughout the year on both ponds we have not encountered any sick or dead birds or wildlife. If you would like to inspect our reports for each week on either or both of the ponds, they will be available upon request at the Koch Exploration Company Office located at 610 South Main in Aztec.

If you have any questions or comments concerning these water analysis, please feel free to contact me at (505)-334-9111 or my mobile phone at (505)-320-0819.

Sincerely,

A handwritten signature in black ink, appearing to read 'Don Johnson'.

Don Johnson
Operations Manager
Koch Exploration Company

cc: Roger Anderson
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

November 28, 2000

Don Johnson
Koch Exploration
610 S. Main Avenue
P.O. box 489
Aztec, NM 87410
TEL: (505) 334-9111
FAX

RE: Koch Evaporation Ponds 1 & 2

Order No.: 0011015

Dear Don Johnson,

On Site Technologies, LTD. received 2 samples on 11/9/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Alkalinity, Total (M2320 B)
AQ-PREP SEP FUNNEL: 418.1/413.2 (SW3550)
Calcium, Dissolved (E215.1)
Chloride (E325.3)
Hardness, Total (M2340 B)
Iron, Dissolved (E236.1)
Magnesium, Dissolved (E242.1)
pH (E150.1)
Potassium, Dissolved (E258.1)
Resistivity (@ 25 deg. C) (M2510 C)
Sodium, Dissolved (E273.1)
Specific Gravity (M2710 F)
Sulfate (M4500-SO4 D)
Total Dissolved Solids (CALC)
Total Dissolved Solids (E160.1)
TPH, T/R (E418.1)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD.

Date: 29-Nov-00

CLIENT: Koch Exploration
Project: Koch Evaporation Ponds 1 & 2
Lab Order: 0011015

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.
Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

Cation-Anion Balance 0011015-01A; Koch Evaporation Pond #1

Total Cation-Anion = 1161.00 meq/L

Difference Cation-Anion = 55.26 meq/L

% Difference = 4.8 %

Cation-Anion Balance 0011015-02A; Koch Evaporation Pond #2

Total Cation-Anion = 1152.11 meq/L

Difference Cation-Anion = 47.93 meq/L

% Difference = 4.2 %

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 28-Nov-00

Client:	Koch Exploration	Client Sample Info:	Koch Evaporation Pond
Work Order:	0011015	Client Sample ID:	Evaporation Pond 1
Lab ID:	0011015-01A	Matrix:	AQUEOUS
Project:	Koch Evaporation Ponds 1 & 2	Collection Date:	11/8/2000 3:45:00 PM
		COC Record:	11005

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
TPH, T/R	E418.1					Analyst: DM
Petroleum Hydrocarbons, T/R	ND	1		mg/L	1	11/10/2000
CALCIUM, DISSOLVED	E215.1					Analyst: HR
Calcium	5	5		mg/L	5	11/22/2000
IRON, DISSOLVED	E236.1					Analyst: HR
Iron	0.58	0.1		mg/L	1	11/22/2000
POTASSIUM, DISSOLVED	E258.1					Analyst: HR
Potassium	87	10		mg/L	40	11/21/2000
MAGNESIUM, DISSOLVED	E242.1					Analyst: HR
Magnesium	44	5		mg/L	20	11/22/2000
SODIUM, DISSOLVED	E273.1					Analyst: HR
Sodium	13800	1000		mg/L	4000	11/21/2000
ALKALINITY, TOTAL	M2320 B					Analyst: HR
Alkalinity, Bicarbonate (As CaCO3)	12700	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Carbonate (As CaCO3)	15100	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Total (As CaCO3)	27800	5		mg/L CaCO3	1	11/14/2000
CHLORIDE	E325.3					Analyst: HR
Chloride	3120	1		mg/L	1	11/21/2000
HARDNESS, TOTAL	M2340 B					Analyst: HR
Hardness (As CaCO3)	190	1		mg/L	1	11/22/2000
PH	E150.1					Analyst: HR
pH	9.54	2		pH units	1	11/9/2000
RESISTIVITY (@ 25 DEG. C)	M2510 C					Analyst: HR
Resistivity	0.249	0.001		ohm-m	1	11/9/2000
SPECIFIC GRAVITY	M2710 F					Analyst: HR
Specific Gravity	1.034	0.001		Units	1	11/15/2000
SULFATE	M4500-SO4 D					Analyst: HR
Sulfate	ND	5		mg/L	1	11/21/2000
TOTAL DISSOLVED SOLIDS	E160.1					Analyst: HR
Total Dissolved Solids (Residue, Filterable)	34000	40		mg/L	1	11/14/2000
TOTAL DISSOLVED SOLIDS	CALC					Analyst: HR
Total Dissolved Solids (Calculated)	34000	40		mg/L	1	11/22/2000

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 2

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 28-Nov-00

Client:	Koch Exploration	Client Sample Info:	Koch Evaporation Pond
Work Order:	0011015	Client Sample ID:	Evaporation Pond 2
Lab ID:	0011015-02A	Matrix:	AQUEOUS
Project:	Koch Evaporation Ponds 1 & 2	Collection Date:	11/8/2000 3:00:00 PM
		COC Record:	11005

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
TPH, T/R	E418.1					Analyst: DM
Petroleum Hydrocarbons, T/R	ND	1		mg/L	1	11/10/2000
CALCIUM, DISSOLVED	E215.1					Analyst: HR
Calcium	5.2	5		mg/L	5	11/22/2000
IRON, DISSOLVED	E236.1					Analyst: HR
Iron	0.53	0.1		mg/L	1	11/22/2000
POTASSIUM, DISSOLVED	E258.1					Analyst: HR
Potassium	92	10		mg/L	40	11/21/2000
MAGNESIUM, DISSOLVED	E242.1					Analyst: HR
Magnesium	50	5		mg/L	20	11/22/2000
SODIUM, DISSOLVED	E273.1					Analyst: HR
Sodium	13600	1000		mg/L	4000	11/21/2000
ALKALINITY, TOTAL	M2320 B					Analyst: HR
Alkalinity, Bicarbonate (As CaCO3)	13000	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Carbonate (As CaCO3)	15000	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	11/14/2000
Alkalinity, Total (As CaCO3)	28000	5		mg/L CaCO3	1	11/14/2000
CHLORIDE	E325.3					Analyst: HR
Chloride	3150	1		mg/L	1	11/21/2000
HARDNESS, TOTAL	M2340 B					Analyst: HR
Hardness (As CaCO3)	220	1		mg/L	1	11/22/2000
PH	E150.1					Analyst: HR
pH	9.55	2		pH units	1	11/9/2000
RESISTIVITY (@ 25 DEG. C)	M2510 C					Analyst: HR
Resistivity	0.25	0.001		ohm-m	1	11/9/2000
SPECIFIC GRAVITY	M2710 F					Analyst: HR
Specific Gravity	1.035	0.001		Units	1	11/15/2000
SULFATE	M4500-SO4 D					Analyst: HR
Sulfate	ND	5		mg/L	1	11/21/2000
TOTAL DISSOLVED SOLIDS	E160.1					Analyst: HR
Total Dissolved Solids (Residue, Filterable)	34000	40		mg/L	1	11/14/2000
TOTAL DISSOLVED SOLIDS	CALC					Analyst: HR
Total Dissolved Solids (Calculated)	33700	40		mg/L	1	11/22/2000

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 2

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 28-Nov-00

QC SUMMARY REPORT

Method Blank

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

Sample ID: MBlank	Batch ID: API_001109	Test Code: M2320 B	Units: mg/L CaCO3	Analysis Date: 11/14/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109C	SeqNo: 32840	LowLimit HighLimit	SeqNo: 32840
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Bicarbonate (As CaCO3)	3.4	5			J
Alkalinity, Carbonate (As CaCO3)	ND	5			
Alkalinity, Hydroxide	ND	5			
Alkalinity, Total (As CaCO3)	3.4	5			J

Sample ID: MBlank	Batch ID: API_001109	Test Code: E160.1	Units: mg/L	Analysis Date: 11/14/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109E	SeqNo: 32847	LowLimit HighLimit	SeqNo: 32847
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Total Dissolved Solids (Residue, Filtera	ND	40			

Sample ID: MBlank	Batch ID: API_001109	Test Code: E325.3	Units: mg/L	Analysis Date: 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109F	SeqNo: 32967	LowLimit HighLimit	SeqNo: 32967
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	ND	1			

Sample ID: MBlank	Batch ID: API_001109	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date: 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109G	SeqNo: 32977	LowLimit HighLimit	SeqNo: 32977
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sulfate	ND	5			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Nov-00

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0011015-01BD Batch ID: API_001109 Test Code: E160.1 Units: mg/L Analysis Date 11/14/2000 Prep Date:
 Client ID: Evaporation Pond Run ID: 0011015 Run ID: WET CHEM_001109E SeqNo: 32850
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Dissolved Solids (Residue, Filtera 40 0 0 0.0% 0 0 33550 1.0% 8

Sample ID: 0011015-01BD Batch ID: API_001109 Test Code: E325.3 Units: mg/L Analysis Date 11/21/2000 Prep Date:
 Client ID: Evaporation Pond Run ID: 0011015 Run ID: WET CHEM_001109F SeqNo: 32970
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Chloride 3274 1 0 0 0.0% 0 0 3124 4.7% 10

Sample ID: 0011015-01BD Batch ID: API_001109 Test Code: M4500-SO4 D Units: mg/L Analysis Date 11/21/2000 Prep Date:
 Client ID: Evaporation Pond Run ID: 0011015 Run ID: WET CHEM_001109G SeqNo: 32980
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Sulfate ND 5 0 0 0.0% 0 0 2.74 0.0% 12

Sample ID: 0011015-02BD Batch ID: API_001109 Test Code: M2320 B Units: mg/L CaCO3 Analysis Date 11/14/2000 Prep Date:
 Client ID: Evaporation Pond Run ID: 0011015 Run ID: WET CHEM_001109C SeqNo: 32844
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Alkalinity, Bicarbonate (As CaCO3) 13690 5 0 0.0% 0 0 13020 5.1% 3 R
 Alkalinity, Carbonate (As CaCO3) 14860 5 0 0.0% 0 0 14990 0.9% 3
 Alkalinity, Hydroxide ND 5 0 0.0% 0 0 0 0.0% 3
 Alkalinity, Total (As CaCO3) 28550 5 0 0.0% 0 0 28000 1.9% 3

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 28-Nov-00

CLIENT: Koch Exploration

Work Order: 0011015

Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: API_001109	Test Code: M2510 C	Units: ohm-m	Analysis Date 11/9/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109B		SeqNo: 32722	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Resistivity	22.32	0.001	22.62	0	98.7% 80 120

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: E150.1	Units: pH units	Analysis Date 11/9/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109A		SeqNo: 32717	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
pH	9.117	2	9.23	0	98.8% 80 120

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: E150.1	Units: pH units	Analysis Date 11/9/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109A		SeqNo: 32720	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
pH	9.123	2	9.23	0	98.8% 80 120

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: M2510 C	Units: ohm-m	Analysis Date 11/9/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109B		SeqNo: 32725	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Resistivity	22.22	0.001	22.62	0	98.2% 80 120

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: M2320 B	Units: mg/L CaCO3	Analysis Date 11/14/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109C		SeqNo: 32841	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	73	5	73	0	100.0% 96 104

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: E160.1	Units: mg/L	Analysis Date 11/14/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109E		SeqNo: 32848	
Analyte	Result	PQL	SPK value	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Total Dissolved Solids (Residue, Filtera	348	40	337	0	103.3% 86 110

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: E325.3	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109F		SeqNo: 32968	
Analyte	Result	PQL	SPK value	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	1007	1	1000	0	100.7% 79 109

Sample ID: LCS 3031	Batch ID: API_001109	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: WET CHEM_001109G		SeqNo: 32978	
Analyte	Result	PQL	SPK value	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sulfate	19.8	5	19.6	0	101.0% 86 111

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Nov-00

QC SUMMARY REPORT

Method Blank

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

Sample ID: MBlank Batch ID: AA_11/21/200 Test Code: E273.1 Units: mg/L Analysis Date 11/21/2000 Prep Date:
Client ID: 0011015 Run ID: AA_001121A SeqNo: 32989
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Sodium ND 0.25

Sample ID: MBlank Batch ID: AA_11/21/200 Test Code: E258.1 Units: mg/L Analysis Date 11/21/2000 Prep Date:
Client ID: 0011015 Run ID: AA_001121B SeqNo: 32996
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Potassium ND 0.25

Sample ID: MBlank Batch ID: AA_11/21/200 Test Code: E215.1 Units: mg/L Analysis Date 11/22/2000 Prep Date:
Client ID: 0011015 Run ID: AA_001121C SeqNo: 33003
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Calcium ND 0.25

Sample ID: MBlank Batch ID: AA_11/21/200 Test Code: E242.1 Units: mg/L Analysis Date 11/22/2000 Prep Date:
Client ID: 0011015 Run ID: AA_001121D SeqNo: 33010
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Magnesium ND 0.25

Sample ID: MBlank Batch ID: AA_11/21/200 Test Code: E236.1 Units: mg/L Analysis Date 11/22/2000 Prep Date:
Client ID: 0011015 Run ID: AA_001121E SeqNo: 33017
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Iron ND 0.1

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 28-Nov-00

QC SUMMARY REPORT

Sample Matrix Spike

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

Sample ID: 0011015-01BMS	Batch ID: AA_11/21/200	Test Code: E236.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID: Evaporation Pond	0011015	Run ID: AA_001121E		SeqNo: 33022	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	3.9	0.1	4	0.58	79 128 83.0%
Sample ID: 0011041-01AMS	Batch ID: AA_11/21/200	Test Code: E273.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121A		SeqNo: 32994	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	6740	250	4000	2740	85 115 100.0%
Sample ID: 0011041-01AMS	Batch ID: AA_11/21/200	Test Code: E258.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121B		SeqNo: 33001	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	329.6	10	200	92	51 167 118.8%
Sample ID: 0011041-01AMS	Batch ID: AA_11/21/200	Test Code: E215.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121C		SeqNo: 33008	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	1472	50	800	660	82 121 101.5%
Sample ID: 0011041-01AMS	Batch ID: AA_11/21/200	Test Code: E242.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121D		SeqNo: 33015	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	1264	50	800	480	96 111 98.0%

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 28-Nov-00

QC SUMMARY REPORT

Continuing Calibration Verification Standard

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

Sample ID: CCV1	Batch ID: AA_11/21/200	Test Code: E273.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121A		SeqNo: 32990	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	3.02	0.25	3.24	0	93.2% 90 110

Sample ID: CCV1	Batch ID: AA_11/21/200	Test Code: E258.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121B		SeqNo: 32997	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	2.12	0.25	2.07	0	102.4% 90 110

Sample ID: CCV1	Batch ID: AA_11/21/200	Test Code: E215.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121C		SeqNo: 33004	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	3.23	0.25	3.28	0	98.5% 90 110

Sample ID: CCV1	Batch ID: AA_11/21/200	Test Code: E242.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121D		SeqNo: 33011	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	2.13	0.25	2.08	0	102.4% 90 110

Sample ID: CCV1	Batch ID: AA_11/21/200	Test Code: E236.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121E		SeqNo: 33018	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	2.04	0.1	2	0	102.0% 90 110

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV2	Batch ID: AA_11/21/200	Test Code: E273.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121A		SeqNo: 32995	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	2.96	0.25	3.24	0	91.4% 90 110

Sample ID: CCV2	Batch ID: AA_11/21/200	Test Code: E258.1	Units: mg/L	Analysis Date 11/21/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121B		SeqNo: 33002	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	2.15	0.25	2.07	0	103.9% 90 110

Sample ID: CCV2	Batch ID: AA_11/21/200	Test Code: E215.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121C		SeqNo: 33009	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	3.3	0.25	3.28	0	100.6% 90 110

Sample ID: CCV2	Batch ID: AA_11/21/200	Test Code: E242.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121D		SeqNo: 33016	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	2.07	0.25	2.08	0	99.5% 90 110

Sample ID: CCV2	Batch ID: AA_11/21/200	Test Code: E236.1	Units: mg/L	Analysis Date 11/22/2000	Prep Date:
Client ID:	0011015	Run ID: AA_001121E		SeqNo: 33023	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	2.08	0.1	2	0	104.0% 90 110

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Nov-00

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT

Method Blank

Sample ID: MB-11/10/2000 Batch ID: 193 Test Code: E418.1 Units: mg/L Analysis Date 11/10/2000 Prep Date: 11/10/2000
Client ID: 0011015 Run ID: TPH_001110B SeqNo: 32832
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Petroleum Hydrocarbons, T/R ND 1

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 28-Nov-00

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0011015-01AD Batch ID: 193 Test Code: E418.1 Units: mg/L Analysis Date 11/10/2000 Prep Date: 11/10/2000
Client ID: Evaporation Pond 0011015 Run ID: TPH_001110B SeqNo: 32837
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Petroleum Hydrocarbons, T/R ND 1 0 0 0.0% 0 0 0.0% 20

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

On Site Technologies, LTD.

Date: 28-Nov-00

CLIENT: Koch Exploration

Work Order: 0011015

Project: Koch Evaporation Ponds 1 & 2

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS-11/10/2000		Batch ID: 193	Test Code: E418.1		Units: mg/L		Analysis Date 11/10/2000		Prep Date: 11/10/2000		
Client ID:		0011015	Run ID:		TPH_001110B		SeqNo: 32834				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, T/R	7.15	1	8.2	0	87.2%	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 28-Nov-00

QC SUMMARY REPORT

Continuing Calibration Verification Standard

CLIENT: Koch Exploration
Work Order: 0011015
Project: Koch Evaporation Ponds 1 & 2

Sample ID: CCV1 Batch ID: 193 Test Code: E418.1 Units: mg/L Analysis Date 11/10/2000 Prep Date:
 Client ID: 0011015 Run ID: TPH_001110B SeqNo: 32833
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Petroleum Hydrocarbons, T/R 118 25 123 0 95.9% 85 115

Sample ID: CCV2 Batch ID: 193 Test Code: E418.1 Units: mg/L Analysis Date 11/10/2000 Prep Date:
 Client ID: 0011015 Run ID: TPH_001110B SeqNo: 32839
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Petroleum Hydrocarbons, T/R 118 25 123 0 95.9% 85 115

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



**THE REPRODUCTION OF
THE
FOLLOWING
DOCUMENT (S)
CANNOT BE IMPROVED
DUE TO
THE CONDITION OF
THE ORIGINAL**



Date: 11/9/03

Page: 1 of 1

Attn: 25 Murray Dr. P.O. Box 26060 Farmington, NM 87499
LAB: 505 325-5666 • FAX: 505 327-1498

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client