

November 15, 1988

REECO
P.O. Box 98521
Las Vegas, Nevada 89193

Attn: Fred Shelly

REFERENCE DATA:

Analysis Requested: GC/MS Scan
DataChem Reference Number: S88-0719
Sample Type: Water
Date Received: November 7, 1988
Date Analyzed: November 11, 1988
Sample(s): 4 Analyses: 4

Sample Numbers:	<u>Field Number</u>	<u>DataChem Number</u>
	4	EH 3217
	5	EH 3218
	6	EH 3219
	15	EH 3220

ANALYTICAL PROCEDURE:

Ten ml of each sample were extracted with 1ml of Carbon disulfide containing D10-ethyl benzene for internal standard. Shook for a minute and let the extracts stand for 5 minutes. Extracts were dried with anhydrous sodium sulfite. The extracts were injected into an HP 5985B GC/MS in order to identify any volatile or semi-volatile organics. The following conditions were used in the analysis.

GAS CHROMATOGRAPH

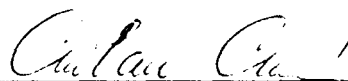
Injection mode: 4. ul splitless
GC column: 25m x 0.32mm i.d. DB-5 capillary column, with a 1.0um thick phase.
Carrier gas: Helium at a head pressure of 10 p.s.i.
GC oven temperature: 50°C for one minute, heating to 320°C at 10°C/minute.
GC/MS interface: Direct coupled to MS source.

MASS SPECTROMETER:

Scanning: 17-417 AMU at 400 AMU/second
Ionization mode: Electron impact at 70 eV

RESULTS AND DISCUSSION:

Figures 1, 2, 3, and 4. show the reconstructed ion chromatograms for samples EH 3217 through EH 3220. Limit of detection (LOD) for this method was 1ug/ml. Nothing was detected greater than LOD.



Milan Mraz
Analytical Chemist
Special Measurements

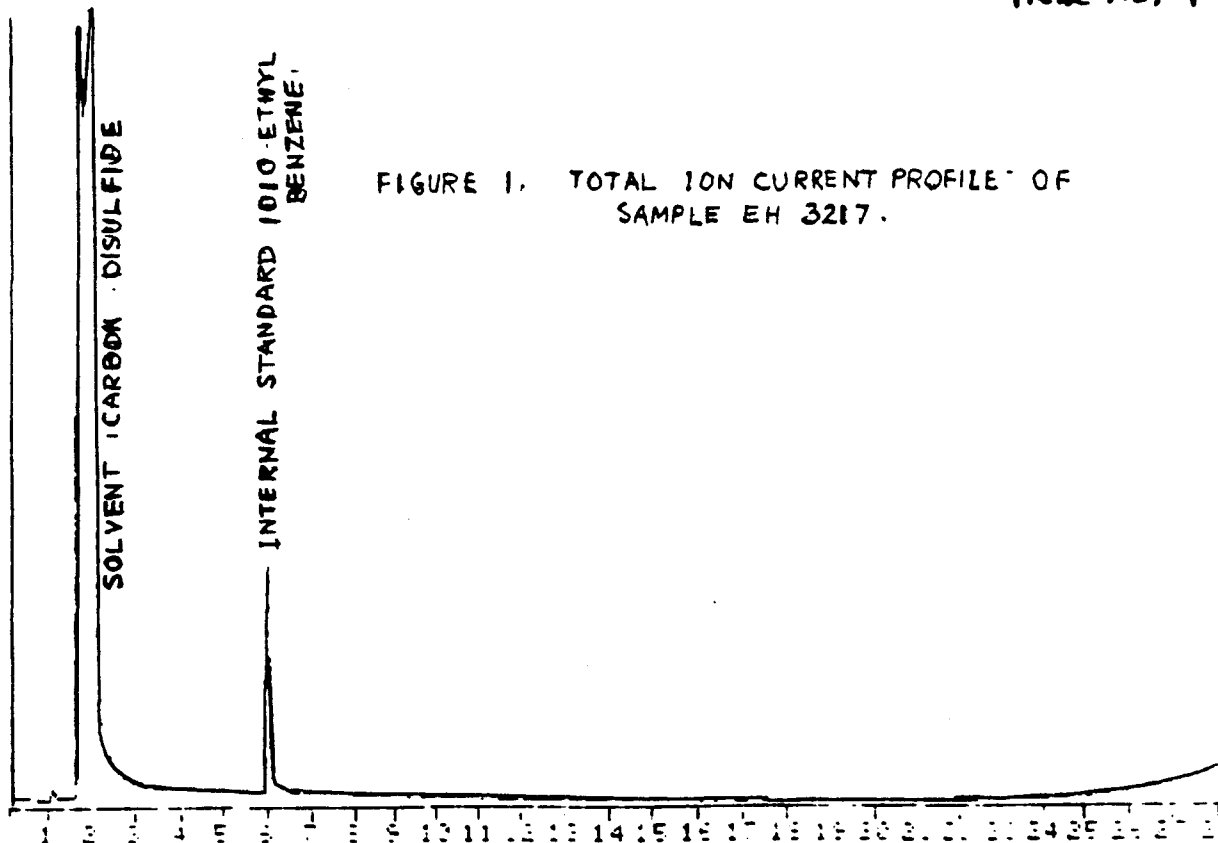


FIGURE 1. TOTAL ION CURRENT PROFILE OF SAMPLE EH 3217.

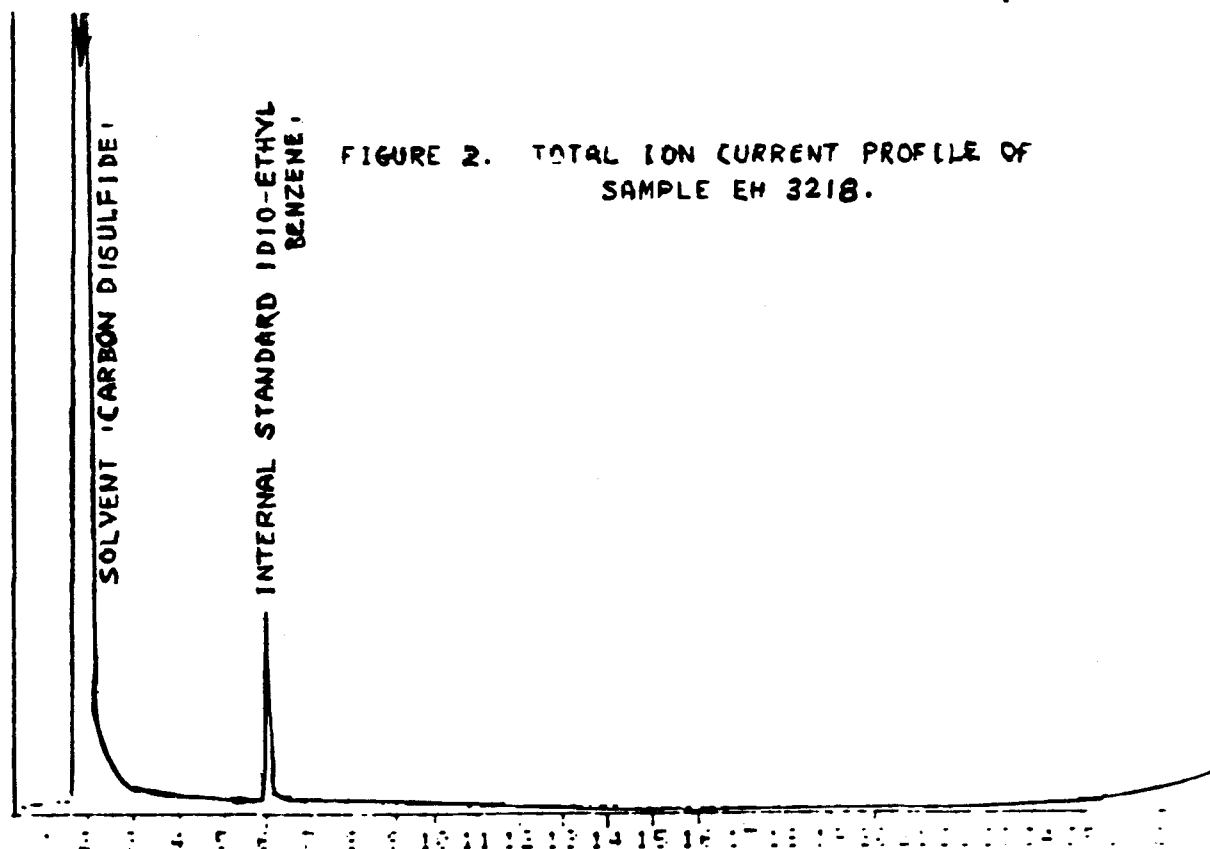


FIGURE 2. TOTAL ION CURRENT PROFILE OF SAMPLE EH 3218.

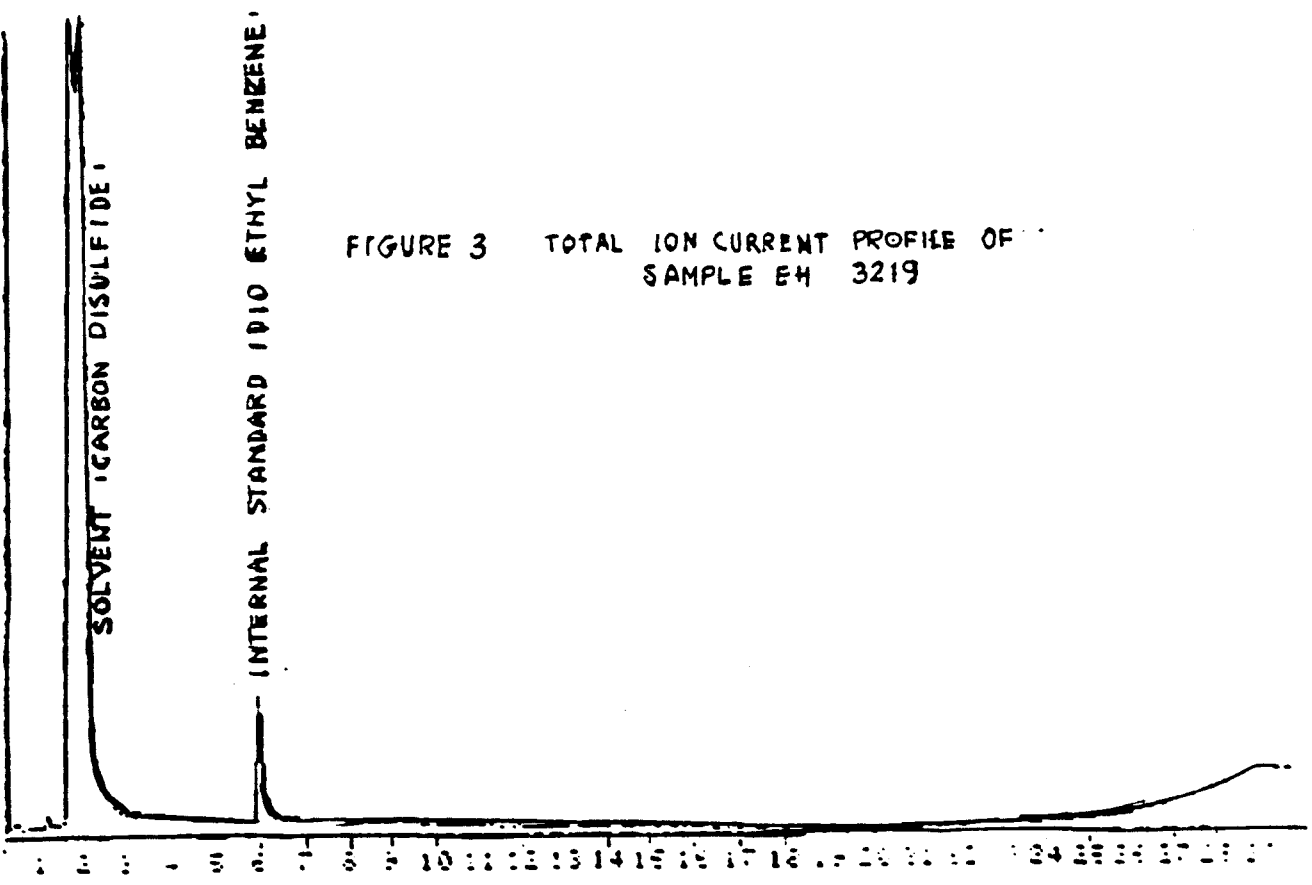


FIGURE 3 TOTAL ION CURRENT PROFILE OF SAMPLE EH 3219

54

8233
Field No. 15

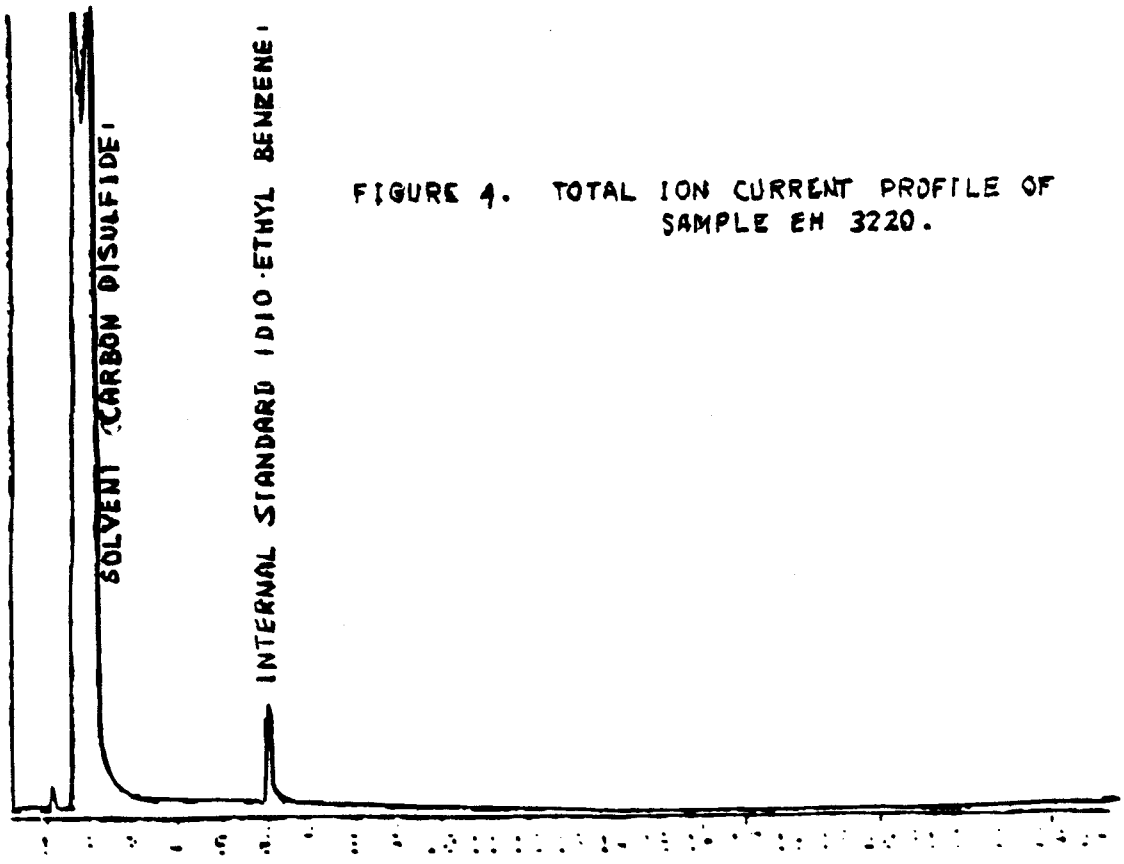


FIGURE 4. TOTAL ION CURRENT PROFILE OF SAMPLE EH 3220.

11



DataChem

ANALYTICAL REPORT

Form ARF-AL

Page 1 of 1

Part 1 of 1

Date 11/28/88
Agency Identification Number S88-0719-BE
Account No. 03018

REECO
P.O. Box 98521 H/S 706
Las Vegas, NV 89193-8521
Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analysis

Method of Analysis _____

Date(s) of Analysis _____

Analytical Results

Field Sample Number	DataChem Lab Number	Sample Type	Area %						
1	EN 3214	WATER	0.05						
3	EN 3215	WATER	7.28						
Limit of Detection									

! See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

* Parameter not analyzed (See comment on last page).
() Parameter between LOD and LOQ.

Jeanine K. Howell
Analyst: Lancaster Labs

Reviewer: _____

Laboratory Supervisor: _____



DataChem was formerly known as USTL

TARGET ANALYTE SUMMARY REPORT

EPA METHOD 624

Sponsor REECO

COMPOUND	Field No. DataChem EH No. MDL ug/L	Results ug/L				Method Blank
		1 3214	3 3215			
chloromethane	4 *	U	U			U
bromomethane	4 *	U	U			U
vinyl chloride	4 *	U	U			U
chloroethane	3 *	U	U			U
dichloromethane	2.6	U	U			U
trichlorofluoromethane	3 *	U	U			U
1,1-dichloroethane	4.7	U	U			U
1,1-dichloroethene	2.6	U	U			U
trans-1,2-dichloroethene	1.6	U	U			U
chloroform	1.6	U	U			U
1,2-dichloroethane	2.8	U	U			U
1,1,1-trichloroethane	3.8	U	U			U
carbon tetrachloride	2.6	U	U			U
bromodichloromethane	2.2	U	U			U
1,2-dichloropropane	6.0	U	U			U
trans-1,3-dichloropropene	4 *	U	U			U
trichloroethene	1.9	U	U			U
benzene	4.4	U	U			U
chlorodibromomethane	3.1	U	U			U
1,1,2-trichloroethane	5.0	U	U			U
cis-1,3-dichloropropene	5.0	U	U			U
2-chloroethylvinyl ether	10 *	U	U			U
bromoform	4.7	U	U			U
1,1,2,2-tetrachloroethane	6.9	U	U			U
tetrachloroethene	4.1	U	U			U
toluene	6.0	U	U			U
chlorobenzene	6.0	U	U			U
ethylbenzene	7.2	U	U			U
1,3-dichlorobenzene	5 *	U	U			U
1,2 & 1,4-dichlorobenzenes	5 *	U	U			U

See footnotes on Page 2 of the analytical report

Thomas J. Masoran
Analyst

Richard W. Wade
Data Release Authorized E,

Lawrence S. Hall
Reviewer

NON-TARGET ANALYTE RESULTS
Additional Volatiles

Field Sample ID <u>1</u>		Scan	Results	
<u>Cas. No</u>	<u>COMPOUND</u>	<u>Number</u>	<u>ug/L</u>	<u>Footnotes</u>
-----	<u>NO UNKNOWN REPORTED</u>	----	-----	----

FOOTNOTES

- B The analyte was found in the method blank. The reported results have been adjusted for the quantity found in the blank.
- E The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.
- J Indicates an estimated concentration below the Method Detection Limit.
- K The isomer is unknown.
- N Analytical standards were not analyzed for this compound.
- U Not detected.
- W The identification is tentative or closely related to the compound.

ANALYTICAL REPORT FOR SAMPLE No. EH3215

Page 1 of 2

EPA METHOD 624
TARGET ANALYTE RESULTSField Sample ID 3 Sponsor REECO
File ID E188EH3215 Date of Analysis 11/08/88 Date Received 11/07/88DataChem Set ID S88-0719DE

<u>Cas. No</u>	<u>COMPOUND</u>	<u>RESULTS</u> <u>(ug/L)</u>	<u>EPA PUBLISHED</u> <u>METHOD DETECTION</u> <u>LIMITS</u> <u>(ug/L)</u>
29479-9	chloromethane	U	4 *
29584-5	bromomethane	U	4 *
9003-22-9	vinyl chloride	U	4 *
29480-2	chloroethane	U	3 *
75-09-2	dichloromethane	U	2.8
75-69-4	trichlorofluoromethane	U	3 *
75-34-3	1,1-dichloroethane	U	4.7
75-35-4	1,1-dichloroethene	U	2.8
107-06-2	trans-1,2-dichloroethene	U	1.6
76-66-3	chloroform	U	1.6
107-06-2	1,2-dichloroethane	U	2.8
71-55-6	1,1,1-trichloroethane	U	3.8
56-23-5	carbon tetrachloride	U	2.8
75-27-4	bromodichloromethane	U	2.2
78-87-5	1,2-dichloropropane	U	6.0
542-75-6	trans-1,3-dichloropropene	U	4 *
79-01-6	trichloroethene	U	1.9
71-43-2	benzene	U	4.4
124-46-1	chlorodibromomethane	U	3.1
79-00-5	1,1,2-trichloroethane	U	5.0
542-75-6	cis-1,3-dichloropropene	U	5.0
110-75-6	2-chloroethylvinyl ether	U	10 *
75-25-2	bromoform	U	4.7
79-34-5	1,1,2,2-tetrachloroethane	U	6.9
127-18-4	tetrachloroethene	U	4.1
100-88-3	toluene	U	6.0
100-94-7	chlorobenzene	U	6.0
100-41-4	ethylbenzene	U	7.2
541-73-1	1,3-dichlorobenzene	U	5 *
	1,2 & 1,4-dichlorobenzenes	U	5 *

* current DataChem detection limit

NON-TARGET ANALYTE RESULTS
Additional VolatilesField Sample ID 3

<u>Cas. No</u>	<u>COMPOUND</u>	<u>Scan Number</u>	<u>Results ug/L</u>	<u>Footnotes</u>
-----	<u>NO UNKNOWN REPORTED</u>	----	-----	----

FOOTNOTES

- B The analyte was found in the method blank. The reported results have been adjusted for the quantity found in the blank.
- E The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.
- J Indicates an estimated concentration below the Method Detection Limit.
- K The isomer is unknown.
- N Analytical standards were not analyzed for this compound.
- U Not detected.
- W The identification is tentative or closely related to the compound.



ENVIRONMENTAL WATER REPORT

Form EPRV-A
Page 1 of 4
Part 1 of 1

Date 11/14/88
Agency Identification Number S88-0719-AE
Account No. 03018

REECO
P.O. Box 98521 M/S 706
Las Vegas, NV 89193-8521
Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analytical Results

Parameter Name	Analysis Date	Units	Method	Prep Method	Field Number	Lab Number	1	3	2	Unit of Detection
Aluminum (Al)	11/10/1988	µg/L	610	150000	ND*					200
6010 [1]	3010 [1]									
Antimony (Sb)	11/10/1988	µg/L	ND*	ND*	ND*					100
6010 [1]	3010 [1]									
Arsenic (As)	11/10/1988	µg/L	ND*	ND*	ND*					100
6010 [1]	3010 [1]									
Barium (Ba)	11/10/1988	µg/L	37.	1200	23.					5.
6010 [1]	3010 [1]									
Beryllium (Be)	11/10/1988	µg/L	ND*	7.	ND*					5.
6010 [1]	3010 [1]									
Boron (B)	11/10/1988	µg/L	ND*	410	ND*					200
6010 [1]	3010 [1]									
Cadmium (Cd)	11/10/1988	µg/L	ND*	ND*	ND*					5.
6010 [1]	3010 [1]									
Calcium (Ca)	11/10/1988	µg/L	12000	220000	15000					1000
6010 [1]	3010 [1]									

↑ See comment on last page.
ND Parameter not detected.
NR Parameter not requested.
↑ Analyses completed on or before this date.

** Parameter not analyzed (See comment page).
() Parameter between LOD and LOQ.
[] Method Reference (See comments page.)



DataChem was formerly known as UBTL

Analyst: John T. Kershnik

Reviewer: Henry F. Lin

Laboratory Supervisor: Norman K. Christensen



ENVIRONMENTAL WATER REPORT

Form EPRV-B
Page 2 of 4
Part 1 of 1

Date 11/14/88
Agency Identification Number SBB-0719-AE
Account No. 03018

Analytical Results

Parameter Name Analysis Date Method	Prep Method	Field Number Lab Number	1 ZH 3214	3 ZH 3215	2 ZH 3216				Limit of Detection
Chromium (Cr) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	76.	ND*				10
Cobalt (Co) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	ND*	ND*				50
Copper (Cu) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	230	ND*				20
Iron (Fe) 11/10/1988 6010 [1]	3010 [1]	µg/L	370	81000	110				100
Lead (Pb) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	170	ND*				100
Magnesium (Mg) 11/10/1988 6010 [1]	3010 [1]	µg/L	1400	45000	1600				1000
Manganese (Mn) 11/10/1988 6010 [1]	3010 [1]	µg/L	20.	2900	ND*				20
Molybdenum (Mo) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	ND*	ND*				50
Nickel (Ni) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	93.	ND*				50
Potassium 11/10/1988 6010 [1]	3010 [1]	µg/L	8700	65000	8100				5000
Selenium (Se) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	ND*	ND*				200
Silver (Ag) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	ND*	ND*				20
Sodium (Na) 11/10/1988 6010 [1]	3010 [1]	µg/L	54000	170000	96000				5000
Thallium (Tl) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	400	ND*				200
Vanadium (V) 11/10/1988 6010 [1]	3010 [1]	µg/L	ND*	250	ND*				50

* See comment on last page.
ND Parameter not detected.
NR Parameter not requested.
1 Analyses completed on or before this date.

** Parameter not analyzed (See comments page).
() Parameter between LOD and LOQ.
[] Method Reference (See comments page).



ENVIRONMENTAL WATER REPORT

Date 11/14/88

Agency Identification Number S88-0719-AE

Account No. 03018

Analytical Results

Parameter Name Analysis Date Units Method Prep Method	Pipe Number Lab Number	1 EH 3214	3 EH 3215	2 EH 3216				Limit of Detection
Zinc (Zn) 11/10/1988 6010 [1] 3010 [1]	µg/L	ND*	500	50.				50
Cyanide (CN) 11/08/1988 335.2 [2]	µg/L	ND*	ND*	NR				5

† See comment on last page.
 ND Parameter not detected.
 NR Parameter not requested.
 † Analyses completed on or before this date.

** Parameter not analyzed (See comments page).
 () Parameter between LOD and LOQ.
 [] Method Reference (See comments page).

Date 11/14/88
 Agency Identification Number S88-0719-CE
 Account No. 03018

REECO
 P.O. Box 98521 M/S 706
 Las Vegas, NV 89193-8521
 Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analysis

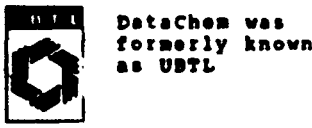
Method of Analysis EPA 608

Date(s) of Analysis November 08, 1988

Analytical Results

Field Sample Number	DataChem Lab Number	Sample Type	Aldrin UG/L	alpha-BHC UG/L	Beta-BHC UG/L	delta-BHC UG/L	Lindane UG/L	Chlordane UG/L	4,4'-DDD UG/L	4,4'-DDE UG/L
1	EH 3214	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
3	EH 3215	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
† Limit of Detection			0.01	0.01	0.01	0.01	0.01	0.2	0.02	0.02

† See comment on last page.
 ND Parameter not detected.
 NR Parameter not requested.
 ** Parameter not analyzed (See comment on last page).
 (*) Parameter between LOD and LOQ.



Kristine M. Rolenz
 Analyst: Kristine M. Rolenz
Ellen Jenkins
 Reviewer:
Ellen Jenkins
 Laboratory Supervisor: Ellen S. Jenkins

Date 11/14/88
Agency Identification Number S88-0719-CE
Account No. 03018

REECO
P.O. Box 98521 M/S 706
Las Vegas, NV 89193-8521
Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analysis

Method of Analysis EPA 608

Date(s) of Analysis November 08, 1988

Analytical Results

Field Sample Number	Attachment Label Number	Sample Type	4,4'-DDT ug/L	Dieldrin ug/L	Endosulfan I ug/L	Endosulfan II ug/L	Endosulfan Sulfate ug/L	Endrin ug/L	Endrin Aldehyde ug/L	Heptachlor ug/L
1	EH 3214	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
3	EH 3215	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
* Limit of Detection			0.02	0.01	0.1	0.1	0.1	0.01	0.1	0.01

† See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

** Parameter not analyzed (See comment on last page).
() Parameter between LOD and LOQ.

Date 11/14/88
 Agency Identification Number SBB-0719-CE
 Account No. 03018

REECO
 P.O. Box 98521 M/S 706
 Las Vegas, NV 89193-8521
 Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analysis

Method of Analysis EPA 608

Date(s) of Analysis November 08, 1988

Analytical Results

Field Sample Number	DataChem Lab Number	Sample Type	Heptachlor Epoxide UG/L	Toxaphene UG/L	Aroclor 1016 UG/L	Aroclor 1221 UG/L	Aroclor 1232 UG/L	Aroclor 1242 UG/L	Aroclor 1248 UG/L	Aroclor 1254 UG/L
1	EH 3214	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
3	EH 3215	WATER	ND*	ND*	ND*	ND*	ND*	ND*	ND*	ND*
* Limit of Detection			0.01	1.0	0.5	0.5	0.5	0.5	0.5	0.5

† See comment on last page.
 ND Parameter not detected.
 NR Parameter not requested.
 ** Parameter not analyzed (See comment on last page).
 () Parameter between LOD and LOQ.



DataChem

ANALYTICAL REPORT

Form ARF-AL
Page 4 of 4
Part 4 of 4

Date 11/14/88
Agency Identification Number SBB-0719-CE
Account No. 0301B

REECO
P.O. Box 98521 M/S 706
Las Vegas, NV 89193-8521
Attention: Fred Shelly

Telephone (702) 295-7191

Sampling Collection and Shipment

Sampling Site _____ Date of Collection November 05, 1988

Date Samples Received at DataChem November 07, 1988

Analysis

Method of Analysis EPA 608

Date(s) of Analysis November 08, 1988

Analytical Results

Field Sample Number	Lab Number	Sample Type	Aroclor 1260 ug/L	Methoxychlor ug/L						
1	EH 3214	WATER	ND*	ND*						
3	EH 3215	WATER	ND*	ND*						
* Limit of Detection			0.5	0.01						

† See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

** Parameter not analyzed (see comment on last page).
() Parameter between LOD and LOQ.

Page 1
Received: 12/01/88

'REECO IH LAB ' REPORT
12/23/88 15:46:25

Work Order # 88-12-009

REPORT REECO
TO P.O. BOX 98521 M/S 706
LAS VEGAS, NV 89193-8521

PREPARED BY Roy W. May

ATTEN A.R. FRAZIER

ATTEN
PHONE

CERTIFIED BY

CONTACT ROGER

CLIENT FRAZIER AR SAMPLES 3
COMPANY REECO
FACILITY MERCURY

WORK ID TONOPAH UREA SAMPLES

UREA ANALYZED AS AMMONIA FOLLOWING TREATMENT WITH UREASE.
ADJUSTING DATA TO REFLECT ALL AMMONIA PRESENT WAS ORIGINALLY
FROM UREA YIELDS THE FOLLOWING RESULTS (PPM UREA):
SAMP 01: 100.5 SAMP 02: 97.1 SAMP 03: 98.4

TAKEN

TRANS

Previously Reported on 12/15/88.

TYPE CONT. SUMP WATER SAMPLES

P.O. #

INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this report

01 IH881571 (FIELD # 1)
02 IH881572 (FIELD # 2)
03 IH881573 (FIELD # 3)

UREA UREA

Page 2
Received: 12/01/88

'REECO IH LAB ' REPORT
Results By Test

Work Order # 88-12-009

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)
UREA PPM	64	62	61

Page 3
Received: 12/01/88

'REECO IH LAB ' REPORT
Test Methodology

Work Order # 88-12-009

TEST CODE UREA NAME UREA

UREA PERFORMED BY SIGMA CHEMICAL COMPANY METHOD NUMBER 640
METHOD C.V. = 5.4%
LIMIT OF DETECTION: 7 PPM
LIMIT OF QUANTITATION: 22 PPM

Page 1
Received: 12/15/88

'REECO IH LAB ' REPORT
12/23/88 15:48:46

Work Order # 88-12-018

REPORT REECO
TO P.O. BOX 98521 M/S 706
LAS VEGAS, NV 89193-8521

PREPARED BY R. M. [Signature]

ATTEN A.R. FRAZIER

ATTEN _____
PHONE _____

CERTIFIED BY _____

CLIENT FRAZIER AR SAMPLES 2
COMPANY REECO
FACILITY MERCURY

CONTACT ROGER

Previously Reported on 12/21/88.

WORK ID TONOPAH UREA WATER SAMPLES
TAKEN 12/14/88
TRANS 12/14/88
TYPE WATER
P.O. # _____
INVOICE under separate cover

TEST CODES and NAMES used on this report

SAMPLE IDENTIFICATION
01 IH881594 (NOV 14 A)
02 IH881595 (NOV 14 B)

UREA UREA

Page 2
Received: 12/15/88

'REECO IH LAB ' REPORT
Results By Test

Work Order # 88-12-018

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)
UREA PPM	93	95

SAMPLE DESCRIPTION

<u>Field Number</u>	<u>Sample Description</u>	<u>Analyzed For</u>	<u>Page Number of Results</u>
4	Rinseate from urea	Organics by GC/MS	1, 2, 3
5	Rinseate from urea	Organics by GC/MS	1, 2, 3
6	Rinseate from urea	Organics by GC/MS	1, 2, 3
15	Six million gallon reservoir	Organics by GC/MS	1, 2, 3
1	Bartholomew sump sample	Urea	4
3	Peripheral soil sample	Urea	4
1	Bartholomew sump sample	Volatile organics EPA Method 624	5, 6
3	Peripheral soil sample	Volatile organics EPA Method 624	4, 7, 8
1	Bartholomew sump sample	Metals by ICP-OES	9, 10, 11
3	Peripheral soil sample	Metals by ICP-OES	9, 10, 11
2	EH-2, well water distribution system	Metals by ICP-OES	9, 10, 11
1	Bartholomew sump sample	Cyanide	11
3	Peripheral soil sample	Cyanide	11
2	EH-2 well water distribution system	Cyanide	11
1	Bartholomew sump sample	Pesticides	12, 13, 14, 15

<u>Field Number</u>	<u>Sample Description</u>	<u>Analyzed For</u>	<u>Page Number of Results</u>
3	Peripheral soil sample	Pesticides	12, 13, 14, 15
1	Barholomew sump	Urea	16, 17, 18
2	Barholomew sump	Urea	16, 17, 18
3	Barholomew sump	Urea	16, 17, 18
14A	Barholomew sump	Urea	19, 20, 21
14B	Barholomew sump	Urea	19, 20, 21

Page 3
Received: 12/15/88

'REECO IH LAB ' REPORT
Test Methodology

Work Order # 88-12-018

TEST CODE UREA NAME UREA

UREA PERFORMED BY SIGMA CHEMICAL COMPANY METHOD NUMBER 640
METHOD C.V.= 5.4%
LIMIT OF DETECTION: 7 PPM
LIMIT OF QUANTITATION: 22 PPM