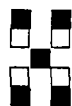


1R - 177

REPORTS

DATE:

5/10/2001



**Hall Environmental
Analysis Laboratory**

May 10, 2001

Hall Environmental Analysis Laboratory
4901 Hawkins NE, Ste. A
Albuquerque, NM 87109

RECEIVED
MAY 11 2001
Environmental Bureau
Oil Conservation Division

ECD Environmental
P. O. Box 9328
Albuquerque, NM 87119

Dear Mr. Bybee:

Enclosed are the results for the analyses that were requested. These were done according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Assistant Laboratory Manager

Project: 9909073/McCasland



Hall Environmental Analysis Laboratory

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: 9/17/99
Date Received: 9/17/99
Sample Matrix: Aqueous
Extraction Date: 9/23/99

EPA Method - 418.1

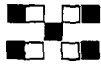
HEAL ID	Client ID	Dilution	TPH (mg/L)	Analysis Date
9909073-1	McCasland Windmill	1	<1.0	9/24/99
Extraction Blank	-	1	<1.0	9/24/99

MRL	1.0
-----	-----

QA/QC

<u>Sample ID:</u>	<u>Sample Amount</u>	<u>Spike</u>	<u>Recovery</u>	<u>% Recovery</u>
Blank Spike 9/23	<1.0	5.0	4.9	98

<u>Sample ID:</u>	<u>Sample Amount</u>	<u>Duplicate</u>	<u>RPD</u>
Ext.Blank Dup. 9/23	<1.0	<1.0	NA



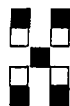
**Hall Environmental
Analysis Laboratory**

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: 9/17/99
Date Received: 9/17/99
Sample Matrix: Aqueous

Inorganic Compounds

HEAL LAB ID	Sample ID	Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	o-Phosphate-P (mg/L)
9909073-1	McCasland Windmill	<0.2	1,400	3.6	<0.2	1.5	100	<1.0
Detection Limits		0.1	0.1	0.1	0.1	0.1	0.5	0.5
Method		300.0	300.0	300.0	300.0	300.0	300.0	300.0
Date Analyzed		9/17/99	9/27/99	9/17/99	9/17/99	9/17/99	9/17/99	9/17/99



Hall Environmental Analysis Laboratory

May 10, 2001

Hall Environmental Analysis Laboratory
4901 Hawkins NE, Ste. A
Albuquerque, NM 87109

ECD Environmental
P. O. Box 9328
Albuquerque, NM 87119

Dear Mr. Bybee:

Enclosed are the results for the analyses that were requested. These were done according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Assistant Laboratory Manager

Project: 9908063/McCasland



**Hall Environmental
Analysis Laboratory**

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: 8/16/99
Date Received: 8/17/99
Sample Matrix: Aqueous
Date Extracted: NA

EPA Method - 8021

Units: PPB ug/L

HEAL LAB ID	Sample ID	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes	1,3,5-TMB	1,2,4-TMB	BFB % Recovery	Dilution Factor	Date Analyzed
9908063-2	Mewbourne Oil Co MW	ND	ND	ND	ND	ND	ND	ND	103	1	8/18/99
Reag. Blk.	-	ND	ND	ND	ND	ND	ND	ND	95	1	8/18/99

MRL

2.5	0.5	0.5	0.5	0.5	0.5	0.5
-----	-----	-----	-----	-----	-----	-----



Hall Environmental Analysis Laboratory

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: NA
Date Received: NA
Sample Matrix: Aqueous
Date Extracted: NA

8021 QC: BS/BSD 8/18

<u>Compound</u>	<u>Sample Amount (ug/L)</u>	<u>Spike</u>	<u>Recovery</u>	<u>% Rec</u>	<u>Dup</u>	<u>% Dup</u>	<u>RPD</u>
MTBE	<2.5	40.0	44.0	110	42.6	107	3
Benzene	<0.5	20.0	20.6	103	20.8	104	1
Toluene	<0.5	20.0	20.5	103	20.2	101	1
Ethylbenzene	<0.5	20.0	20.7	104	20.3	102	2
Total Xylenes	<0.5	60.0	61.5	103	61.1	102	1
1,3,5-TMB	<0.5	20.0	20.8	104	20.4	102	2
1,2,4-TMB	<0.5	20.0	20.6	103	20.6	103	0



Hall Environmental Analysis Laboratory

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: 8/16/99
Date Received: 8/17/99
Sample Matrix: Aqueous
Extraction Date: 8/20/99

EPA Method - 418.1

HEAL ID	Client ID	Dilution	TPH (mg/L)	Analysis Date
9908063-1	McCasland Water Well	1	ND	8/20/99
9908063-2	Mewburne Oil Co MW	1	ND	8/20/99
Extraction Blank	-	1	ND	8/20/99

MRL	1.0
-----	-----

QA/QC

<u>Sample ID:</u>	<u>Sample Amount</u>	<u>Spike</u>	<u>Recovery</u>	<u>% Recovery</u>
Blank Spike 8/20	<1.0	5.0	4.5	90

<u>Sample ID:</u>	<u>Sample Amount</u>	<u>Duplicate</u>	<u>RPD</u>
Blank Duplicate 6/11	<1.0	<1.0	NA

May 10, 2001

Greg Bybee
ECD Environmental
PO Box 9328
Albuquerque, NM 87119
TEL: (505) 268-2401
FAX (505) 242-6213

RE: McCasland

Order No.: 0101044

Dear Greg Bybee:

Hall Environmental Analysis Laboratory received 3 samples on 1/9/01 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Senior Project Manager
Nancy McDuffie, Assistant Laboratory Manager



**Hall Environmental
Analysis Laboratory**

Client: ECD Environmental
Project: McCasland
Project Manager: Greg Bybee
Project Number: -

Date Collected: 8/16/99
Date Received: 8/17/99
Sample Matrix: Aqueous

Inorganic Compounds

HEAL LAB ID	Sample ID	Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	o-Phosphate-P (mg/L)
9908063-1	McCasland Water Well Mewbourne Oil Co MW	0.2	720	2.4	ND	1.4	77	ND
9908063-2		0.3	120	1.2	ND	3.3	79	ND
Detection Limits		0.1	0.1	0.1	0.1	0.1	0.5	0.5
Method		300.0	300.0	300.0	300.0	300.0	300.0	300.0
Date Analyzed		8/17/99	8/23/99	8/17/99	8/17/99	8/17/99	8/17,23/99	8/17/99

May 10, 2001

Greg Bybee
ECD Environmental
PO Box 9328
Albuquerque, NM 87119
TEL: (505) 268-2401
FAX (505) 242-6213

RE: McCasland

Order No.: 0011154

Dear Greg Bybee:

Hall Environmental Analysis Laboratory received 3 samples on 11/30/00 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Senior Project Manager
Nancy McDuffie, Assistant Laboratory Manager

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Project: McCasland**Lab Order:** 0011154**Lab ID:** 0011154-01**Collection Date:** 11/28/00**Client Sample ID:** McCasland Windmill 1st Purge**Matrix:** AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300		Analyst: SDU		
Phosphorus, Dissolved Orthophosphate (As P)	43	2.5		mg/L	5	12/1/00
Fluoride	ND	0.50		mg/L	5	12/1/00
Chloride	1500	20		mg/L	200	12/14/00
Nitrogen, Nitrite (As N)	ND	2.5		mg/L	5	12/1/00
Bromide	4.0	0.50		mg/L	5	12/1/00
Nitrogen, Nitrate (As N)	1.8	0.50		mg/L	5	12/1/00
Sulfate	100	2.5		mg/L	5	12/1/00

Lab ID: 0011154-02**Collection Date:** 11/28/00**Client Sample ID:** McCasland Windmill**Matrix:** AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300		Analyst: SDU		
Phosphorus, Dissolved Orthophosphate (As P)	ND	0.50		mg/L	1	12/1/00
Fluoride	ND	0.10		mg/L	1	12/1/00
Chloride	1100	5.0		mg/L	50	12/14/00
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	1	12/1/00
Bromide	2.9	0.10		mg/L	1	12/1/00
Nitrogen, Nitrate (As N)	1.7	0.10		mg/L	1	12/1/00
Sulfate	88	2.5		mg/L	5	12/14/00

Lab ID: 0011154-03**Collection Date:** 11/28/00**Client Sample ID:** McCasland Blank**Matrix:** AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300		Analyst: SDU		
Phosphorus, Dissolved Orthophosphate (As P)	ND	0.50		mg/L	1	12/1/00
Fluoride	0.60	0.10		mg/L	1	12/1/00
Chloride	22	0.10		mg/L	1	12/1/00
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	1	12/1/00
Bromide	0.20	0.10		mg/L	1	12/1/00
Nitrogen, Nitrate (As N)	2.0	0.10		mg/L	1	12/1/00
Sulfate	38	0.50		mg/L	1	12/1/00

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

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

May 10, 2001

Greg Bybee
ECD Environmental
PO Box 9328
Albuquerque, NM 87119
TEL: (505) 268-2401
FAX (505) 242-6213

RE: McCasland

Order No.: 0101044

Dear Greg Bybee:

Hall Environmental Analysis Laboratory received 3 samples on 1/9/01 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Senior Project Manager
Nancy McDuffie, Assistant Laboratory Manager

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Lab Order: 0101044
Project: McCasland
Lab ID: 0101044-01

Client Sample ID: MW-1
Collection Date: 1/8/01

Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300				Analyst: SDU
Phosphorus, Dissolved Orthophosphate (As P)	ND	2.5		mg/L	5	1/10/01
Fluoride	ND	0.50		mg/L	5	1/10/01
Chloride	100	0.50		mg/L	5	1/10/01
Bromide	1.0	0.50		mg/L	5	1/10/01
Nitrate (As N)+Nitrite (As N)	1.8	0.50		mg/L	5	1/10/01
Sulfate	69	2.5		mg/L	5	1/10/01
TPH BY 418.1		E418.1				Analyst: JT
Petroleum Hydrocarbons, TR	ND	1.0		mg/L	1	1/11/01

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

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Lab Order: 0101044
Project: McCasland
Lab ID: 0101044-02

Client Sample ID: MW-2
Collection Date: 1/8/01

Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300				Analyst: SDU
Phosphorus, Dissolved Orthophosphate (As P)	ND	2.5		mg/L	5	1/10/01
Fluoride	ND	0.50		mg/L	5	1/10/01
Chloride	130	0.50		mg/L	5	1/10/01
Bromide	1.0	0.50		mg/L	5	1/10/01
Nitrate (As N)+Nitrite (As N)	1.1	0.50		mg/L	5	1/10/01
Sulfate	61	2.5		mg/L	5	1/10/01
TPH BY 418.1		E418.1				Analyst: JT
Petroleum Hydrocarbons, TR	ND	1.0		mg/L	1	1/11/01

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

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Lab Order: 0101044
Project: McCasland
Lab ID: 0101044-03

Client Sample ID: MW-3
Collection Date: 1/8/01

Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ANIONS BY 300.0		E300				Analyst: SDU
Phosphorus, Dissolved Orthophosphate (As P)	ND	2.5		mg/L	5	1/10/01
Fluoride	ND	0.50		mg/L	5	1/10/01
Chloride	870	10		mg/L	100	1/12/01
Bromide	2.8	0.50		mg/L	5	1/10/01
Nitrate (As N)+Nitrite (As N)	1.0	0.50		mg/L	5	1/10/01
Sulfate	95	2.5		mg/L	5	1/10/01
TPH BY 418.1		E418.1				Analyst: JT
Petroleum Hydrocarbons, TR	ND	1.0		mg/L	1	1/11/01

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

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Work Order: 0101044
Project: McCasland

QC SUMMARY REPORT
Method Blank

Sample ID: blk	Batch ID: R462	Test Code: E300	Units: mg/L	Analysis Date: 1/10/01	Prep Date:
Client ID:	Run ID: WC_010110A	SeqNo: 9590			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phosphorus, Dissolved Orthophosphate	ND	0.50			
Fluoride	ND	0.10			
Chloride	ND	0.10			
Bromide	ND	0.10			
Sulfate	ND	0.50			

Sample ID: MBLK	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:
Client ID:	Run ID: WC_010112A	SeqNo: 10053			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phosphorus, Dissolved Orthophosphate	ND	0.50			
Fluoride	ND	0.10			
Chloride	ND	0.10			
Bromide	ND	0.10			
Sulfate	ND	0.50			

Sample ID: MB-202	Batch ID: 202	Test Code: E418.1	Units: mg/L	Analysis Date: 1/11/01	Prep Date: 1/10/01
Client ID:	Run ID: BUCK IR_010109A	SeqNo: 9574			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	ND	1.0			

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

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental
Work Order: 0101044
Project: McCasland

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0101044-03B		Batch ID: R462		Test Code: E300		Units: mg/L		Analysis Date: 1/10/01		Prep Date:	
Client ID: MW-3		Run ID:		WC_010110A				SeqNo: 9706			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Dissolved Orthophosphate	ND	2.5	0	6.029	0	85	115	0	0	15	
Fluoride	ND	0.50	0	0.602	0	85	115	0	0	15	
Bromide	2.6	0.50	0	2.953	0	85	115	2.8	7.41	15	
Nitrate (As N)+Nitrite (As N)	1.3	0.50	0	0	0	85	115	1	26.1	15	R
Sulfate	94	2.5	0	11.88	0	85	115	95	1.06	15	

Sample ID: 0101044-03B		Batch ID: R471		Test Code: E300		Units: mg/L		Analysis Date: 1/12/01			Prep Date:	
Client ID: MW-3		Run ID: WC_010112A		PQL		SPK value		SeqNo: 9708				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloride	860	10	0	0	0	85	115	870	1.16	15	15	

Sample ID: 0101029-06B		Batch ID: R471		Test Code: E300		Units: mg/L		Analysis Date: 1/12/01				Prep Date:	
Client ID:		Run ID: WC_010112A		SeqNo: 9907									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	1800	50	0	0	0	85	115	1800	0	15			

Sample ID: 0101049-02A		Batch ID: R471		Test Code: E300		Units: mg/L		Analysis Date: 1/12/01			Prep Date:	
Client ID:		Run ID:		WC_010112A				SeqNo: 10056				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Chloride	22	0.10	0	5.679	0	85	115	22	0	15		

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: ECD Environmental
 Work Order: 0101044
 Project: McCasland

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0101025-08B Batch ID: R462 Test Code: E300 Units: mg/L Analysis Date: 1/10/01 Prep Date:
 Client ID: Run ID: WC_010110A SeqNo: 10092
 Analyte Result PQL 0.50 SPK value 0 SPK Ref Val %REC 0 LowLimit 85 HighLimit 115 RPD Ref Val 14 %RPD 0 RPDLimit 15 Qual

Sample ID: 0101060-15B Batch ID: R471 Test Code: E300 Units: mg/L Analysis Date: 1/12/01 Prep Date:
 Client ID: Run ID: WC_010112A SeqNo: 10277
 Analyte Result PQL 0.50 SPK value 0 SPK Ref Val %REC 0 LowLimit 85 HighLimit 115 RPD Ref Val 62 %RPD 1.63 RPDLimit 15 Qual

Sample ID: 0101058-03A Batch ID: R471 Test Code: E300 Units: mg/L Analysis Date: 1/12/01 Prep Date:
 Client ID: Run ID: WC_010112A SeqNo: 10783
 Analyte Result PQL 0.10 SPK value 0 SPK Ref Val %REC 0 LowLimit 85 HighLimit 115 RPD Ref Val 0.2 %RPD 0 RPDLimit 15 Qual

Sample ID: 0101056-05C Batch ID: R471 Test Code: E300 Units: mg/L Analysis Date: 1/12/01 Prep Date:
 Client ID: Run ID: WC_010112A SeqNo: 12188
 Analyte Result PQL 0.50 SPK value 0 SPK Ref Val %REC 0 LowLimit 85 HighLimit 115 RPD Ref Val 0 %RPD 0 RPDLimit 15 Qual

Sample ID: 0101056-05D Batch ID: R471 Test Code: E300 Units: mg/L Analysis Date: 1/12/01 Prep Date:
 Client ID: Run ID: WC_010112A SeqNo: 12189
 Analyte Result PQL 0.50 SPK value 0 SPK Ref Val %REC 0 LowLimit 85 HighLimit 115 RPD Ref Val 0 %RPD 0 RPDLimit 15 Qual

Nitrate (As N)+Nitrite (As N)

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

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental

Work Order: 0101044

Project: McCasland

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0101056-06BMS	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:
Client ID:	Run ID: WC_010112A	PQL	SPK value	SeqNo: 12177	
Analyte	Result	QOL	SPK Ref Val	%REC LowLimit HighLimit	%RPD RPDLimit Qual
Nitrate (As N)+Nitrite (As N)	31	0.50	3.2	28 93.8 85 115	0
Sample ID: 0101056-06BMSD	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:
Client ID:	Run ID: WC_010112A	PQL	SPK value	SeqNo: 12178	
Analyte	Result	QOL	SPK Ref Val	%REC LowLimit HighLimit	%RPD RPDLimit Qual
Nitrate (As N)+Nitrite (As N)	31	0.50	3.2	28 93.8 85 115	0 15
Sample ID: 0101056-07BMS	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:
Client ID:	Run ID: WC_010112A	PQL	SPK value	SeqNo: 12183	
Analyte	Result	QOL	SPK Ref Val	%REC LowLimit HighLimit	%RPD RPDLimit Qual
Nitrate (As N)+Nitrite (As N)	63	0.50	3.2	58 156 85 115	0 S

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

Hall Environmental Analysis Laboratory

Date: 10-May-01

CLIENT: ECD Environmental

Work Order: 0101044

Project: McCasland

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: Ics	Batch ID: R462	Test Code: E300	Units: mg/L	Analysis Date: 1/10/01		Prep Date:					
Client ID:		Run ID: WC_010110A		SeqNo: 9588							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Dissolved Orthophosphate	6.029	0.50	6	0	100	85	115	5.941	1.47	0	
Fluoride	0.602	0.10	0.6	0	100	85	115	0.591	1.84	0	
Chloride	5.703	0.10	6	0	95.1	85	115	5.66	0.757	0	
Bromide	2.953	0.10	3	0	98.4	85	115	2.904	1.67	0	
Sulfate	11.88	0.50	12	0	99.0	85	115	11.69	1.65	0	

Sample ID: Icsd	Batch ID: R462	Test Code: E300	Units: mg/L	Analysis Date: 1/10/01		Prep Date:					
Client ID:	Run ID: WC_010110A	SeqNo: 9589									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Dissolved Orthophosphate	5.941	0.50	6	0	99.0	85	115	6.029	1.47	15	
Fluoride	0.591	0.10	0.6	0	98.5	85	115	0.602	1.84	15	
Chloride	5.66	0.10	6	0	94.3	85	115	5.703	0.757	15	
Bromide	2.904	0.10	3	0	96.8	85	115	2.953	1.67	15	
Sulfate	11.69	0.50	12	0	97.4	85	115	11.88	1.65	15	

Sample ID: LCS	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:						
Client ID:		Run ID: WC_010112A		SeqNo: 10054							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Dissolved Orthophosphate	5.664	0.50	6	0	94.4	85	115	0			
Fluoride	0.595	0.10	0.6	0	99.2	85	115	0			
Chloride	5.679	0.10	6	0	94.7	85	115	0			
Bromide	2.917	0.10	3	0	97.2	85	115	0			
Sulfate	11.51	0.50	12	0	95.9	85	115	0			

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: ECD Environmental
Work Order: 0101044
Project: McCasland

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID: LCSD	Batch ID: R471	Test Code: E300	Units: mg/L	Analysis Date: 1/12/01	Prep Date:						
Client ID:		Run ID: WC_010112A		SeqNo: 10055							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Dissolved Orthophosphate	5.531	0.50	6	0	92.2	85	115	5.664	2.38	15	
Fluoride	0.586	0.10	0.6	0	97.7	85	115	0.595	1.52	15	
Chloride	5.555	0.10	6	0	92.6	85	115	5.679	2.21	15	
Bromide	2.864	0.10	3	0	95.5	85	115	2.917	1.83	15	
Sulfate	11.29	0.50	12	0	94.0	85	115	11.51	2.00	15	