N60478.AR.000061
NWS EARLE
5090.3a

Groundwater Monitoring Study

Sampling Results

Round 2

Waste Oil Storage Tank
Building C-14
Naval Weapons Station Earle
Colts Neck, New Jersey

Contract Number N62472-86-C-1487

OPTION I

Project No. 5

June 1990

Gannett Fleming Environmental Engineers, Inc.

Harrisburg, PA

GANNETT FLEMING

Groundwater Monitoring Study

Sampling Results

Round 2

Waste Oil Storage Tank
Building C-14
Naval Weapons Station Earle
Colts Neck, New Jersey

Contract Number N62472-86-C-1487

OPTION I

Project No. 5

June 1990

Gannett Fleming Environmental Engineers, Inc.

Harrisburg, PA

Contents

PART 1

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Sampling Results

The second round of sampling of OPTION I for the Building C-14 waste oil storage tank area has been completed. A summary of the sampling results is presented in Table 1. The laboratory analysis report from QC, Inc., a New Jersey Certified Laboratory, can be found in Attachment A. The Chain of Custody forms are also found in Attachment A. The Ground Water Analysis Forms (No. VWX-15) are presented in Attachment B. The location of the monitoring wells is shown in Figure 1.

For this sampling round, the following parameters were measured: petroleum hydrocarbons, total dissolved solids (TDS), total organic carbon (TOC), and pH. The limitations set for these parameters (as found in Table 1 of contract number N62472-86-C-1487, Amendment 7) are:

Parameter	Limitation
Base/Neutral Compounds	---
Lead and Compounds	0.05 ppm
Petroleum Hydrocarbons	10 ppm
TDS	500 ppm
TOC	---
pH	5-9
Total Volatile Organics	---

Petroleum hydrocarbons were undetected in all wells. The TDS concentrations in all samples were below the limitation levels. The TOC concentrations measured were less than 7 mg/L. The pH of the samples from wells C-14B, C-14C and C-29A was measured to be slightly less than the lower limit of 5.

TABLE 1

Groundwater Monitoring Study
Naval Weapons Station Earle
Summary of Results*

Parameter	Well No. C-14A	C-14B	C-14C	C-29A	Trip Blank	Field Blank
Elevation of top of monitor well casing above ground level	0	1.83 ft.	2.17 ft.	3.50 ft.	-	-
Depth to Water Table from top of casing	7.50	12.34 ft.	12.66 ft.	10.83 ft.	-	-
Depth to Water Table from ground level	7.50	10.51 ft.	10.49 ft.	7.33 ft.	-	-
Lead and Compounds	-	-	-	-	-	-
Petroleum Hydrocarbons	<0.5 mg/L	<0.5 mg/L	<0.5 mg/L	<0.5 mg/L	<0.5 mg/L	<0.5 mg/L
pH	5.48	4.07	4.29	4.50	5.84	5.98
Total Dissolved Solids (TDS)	120 mg/L	88 mg/L	93 mg/L	220 mg/L	<2 mg/L	<2 mg/L
Total Organic Carbon	6.0 mg/L	7.0 mg/L	7.0 mg/L	<1.0 mg/L	<1.0 mg/L	<1.0 mg/L

*Results given with a less than symbol were undetected and the value given is the detection limit.

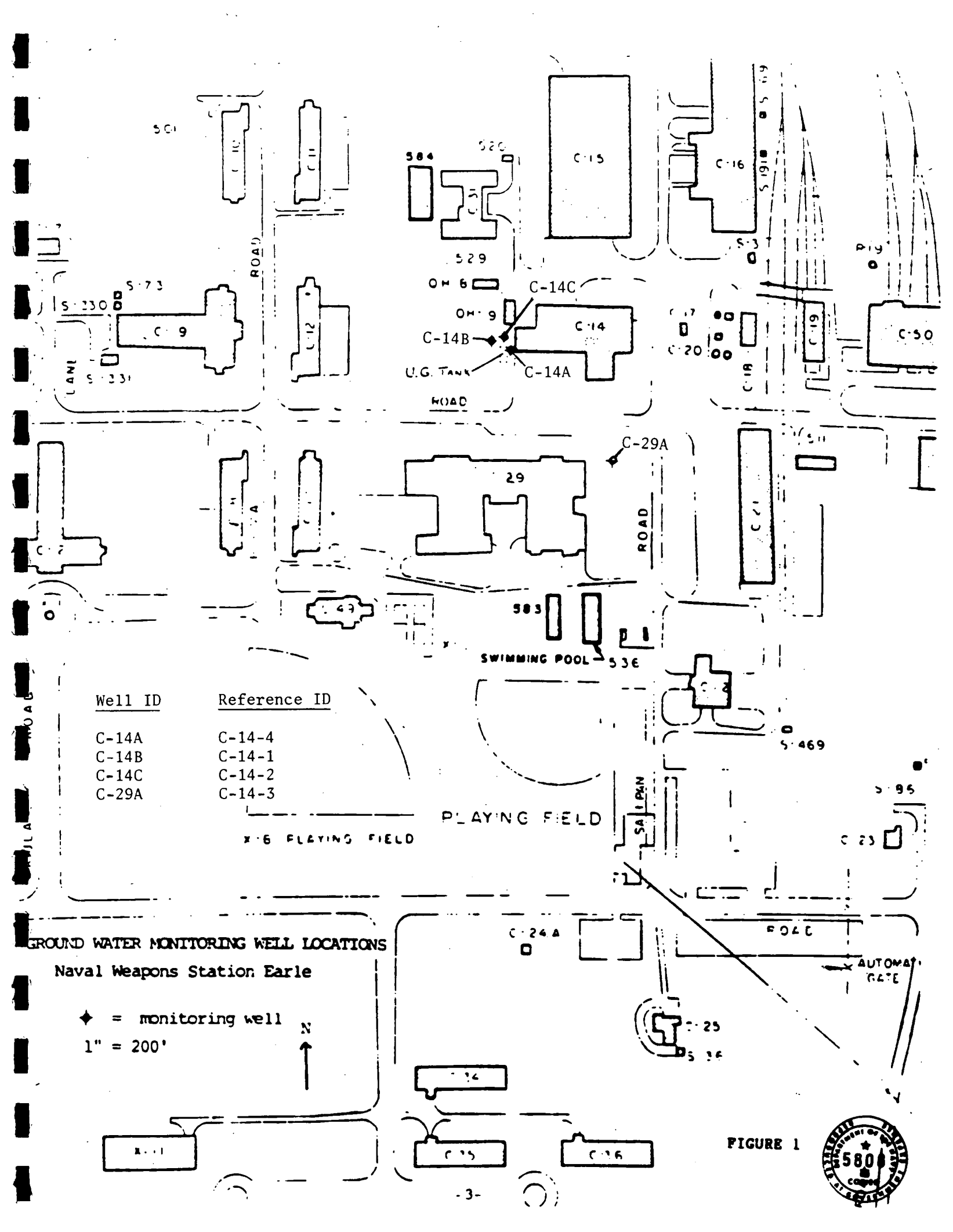
C-14C
C-14B
C-14A
U.G. TANK
C-29A
ROAD
SWIMMING POOL
PLAYING FIELD
Well ID
Reference ID
C-14A C-14-4
C-14B C-14-1
C-14C C-14-2
C-29A C-14-3
GROUND WATER MONITORING WELL LOCATIONS
Naval Weapons Station Earle
✦ = monitoring well
1" = 200'
N

FIGURE 1

ATTACHMENT A
Laboratory Analysis

QC Inc

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ANALYTICAL DATA REPORT PACKAGE
FOR
GANNETT FLEMING

Field Sample ID	Laboratory Sample ID	Date of Collection
WELL C-14B	208708	05/07/90
WELL C-14A	208709	"
WELL C-29A	208710	"
WELL C-14C	208711	"
FIELD BLANK	208712	"
TRIP BLANK	208713	"

Laboratory Name QC Inc.

Certification No. PADER No. 09-131
NJDEP No. 77166

Supervisor/Manager Signature Allen D. Schopbach

Printed Name Allen D. Schopbach

Date 6/12/90

QC Inc

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	(WELL C-29A)	11
	(WELL C-14C)	12
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	Petroleum Hydrocarbons	16
	Total Organic Carbon	24
	Total Dissolved Solids	29
	pH	31

Chain of Custody Without Shuttle

QC Inc
1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 208708 0000001

NAME OF UNIT AND ADDRESS
Gannett FLEMING INC.
209 SENATE AVE
CAMP Hill, Pa 17011
ATTN: Scott Furlong

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
C-14B	1	Petroleum Hydrocarbons (1 qt. gl. H_2SO_4
C-14B	1	Total Dissolved Solids (TDS) + pH pt pl. (unpres)
C-14B	1	Total organic Carbon (pt pl. H_2SO_4

NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH OF change of CUSTODY

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC.

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
C-14B	Scott E Furlong	Nancy A. Stone	3:50	5/7/90	BROUGHT TO LAB
		Roadarmel	8 AM	5/8/90	log in
13961 208708	Roadarmel	[illegible]	11:30	5/9/90	Wet Chem

LAB COPY

Chain of Custody Without Shuttle

QC Inc
1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 000002
208709

NAME OF UNIT AND ADDRESS
GANNETT FLEMING INC.
209 SENATE AVENUE
CAMP HILL, PA 17011
ATTN: SCOTT FURLONG

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
C-14A	1	Petroleum Hydrocarbons (qt. pl. H_2SO_4
C-14A	1	Total Dissolved Solids (TDS) + pH (pt. pl. unpres)
C-14A	1	Total Organic Carbon - (pt pl. H_2SO_4)
208709		

* NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH OF CHANGE OF CUSTODY

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC.

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
C-14A	Scott E Furlong	Nancy Stacer	3:50pm	5/7/90	BROUGHT TO LAB
	Roadarmel		8 AM	5/8/90	Login
13962 208709	Roadarmel	[illegible]	11	5/9/90	Wet Chem

LAB COPY

Chain of Custody Without Shuttle

QC In

1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 000003
208710

NAME OF UNIT AND ADDRESS
Gannett FLEMING
209 SENATE AVE
CAMP Hill, Pa 17011
ATTN: SCOTT Furlong

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
C-29A	1	Petroleum Hydrocarbons (qt. gl. H_2SO_4)
C-29A	1	Total Dissolved Solids (TDS) + pH - pt. pl. (unpres)
C-29A ↑ 208710	1	Total organic Carbon + pt pl. H_2SO_4)
		*NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH of Change of Custody

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC.

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
C-29A	Scott Furlong	Nancy A. Stone	3:50	5/7/90	BROUGHT TO LAB
		Goudarmel	8AM	5/8/90	Login
13963 208710	Goudarmel	[illegible]	11	5/9/90	Wet Chem

LAB COPY

Chain of Custody Without Shuttle

QC Inc
1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 000004
208711

NAME OF UNIT AND ADDRESS
Gannett FLEMING Inc
209 Senate Ave.
CAMP Hill, Pa 17011
ATTN: Scott Furlong

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
C-14C	1	Petroleum Hydrocarbons (Qt. fl. H2SO4
C-14C	1	Total Dissolved Solids (TDS) + pH (pt. pl. unpres.)
C-14C	1	Total Organic Carbon - pt. pl. H2SO4
208711		
	* NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH of change of CUSTODY	

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC.

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
C-14C	Scott E Furlong	Nancy A. Stone	3:50	5/7/90	BROUGHT TO LAB
		Goodarmel	8 AM	5/8/90	Login
13964 208711	Goodarmel	[illegible]	11:30	5/9	Wet Chem

LAB COPY

Chain of Custody Without Shuttle

QC Inc
1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 000005

NAME OF UNIT AND ADDRESS
Gannett FLEMING Inc.
209 SERATE AVE
CAMP Hill, Pa 17011
ATTN: SCOTT Furlong

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
FIELD BLANK	1	Petroleum Hydrocarbons pt pl. H2SO4
FIELD BLANK	1	Total dissolved Solids (TDS) + pH pt pl. (unpres)
FIELD BLANK	1	Total Organic Carbon - pt pl. H2SO4
208712		

* NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH FROM CHANGE OF CUSTODY

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
FIELD BLANK	Scott E. Furlong	Nancy A. Stern	3:50	5/7/90	BROUGHT TO LAB
		J Loudarmel	8 AM	5/8/90	Login
13965 208712	J Loudarmel	[illegible]	11 [illegible]	5/[illegible]	Wet Chem

LAB COPY

Chain of Custody Without Shuttle

QC Inc
1205 Industrial Highway
P.O. Box 514 • Southampton, Pennsylvania 18966-0514
(215) 355-3900

I.D. NUMBER 000006

NAME OF UNIT AND ADDRESS
Gannett FLEMING INC.
209 SENATE AVE
CAMP Hill, Pa 17011
ATTN: Scott Furlong

SAMPLE NO.	NO. OF CONT.	DESCRIPTION OF SAMPLES
trip BLANK	1	Petroleum Hydrocarbon (pt. pl. H2SO4)
TRIP BLANK	1	Total Dissolved Solid (TDS) + pH (pt pl. unpres)
TRIP BLANK	1	Total organic Carbon - pt pl. H2SO4

*NOTE: PLEASE RETURN RESULTS WITHIN ONE MONTH OF CHANGE OF CUSTODY

PERSON ASSUMING RESPONSIBILITY FOR SAMPLE
QC INC.

SAMPLE NUMBER	RELINQUISHED BY	RECEIVED BY	TIME	DATE	REASON FOR CHANGE OF CUSTODY
TRIP BLANK	Scott E Furlong	Nancy A. Stacer	3:50	5/7/90	BROUGHT TO LAB
		J Loadamer	8AM	5/8/90	Login
13966	J Loadamer	[illegible]	11:2	5/8/90	Wet Chem

LAB COPY

QC Inc

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LABORATORY CHRONICLE

Lab Sample ID No: 208708 - 208713

	I Date	II
Receipt/Refrigeration	05/07/90	
Organics Extraction		
1. Base/Neutral Extractables		
2. Acid Extractables		
3. Pesticides/PCB's		
4. Dioxin		
Analyses		
1. Volatiles		
2. Base/Neutral Extractables		
3. Acid Extractables		
4. Pesticides/PCB's		
5. Dioxin		
Inorganics		
1. Metals		
2. Cyanides		
3. Phenols		
Other Analytes		
1. Petroleum Hydrocarbons	05/14/90	
2. Total Organic Carbon	05/14/90	
3. Total Dissolved Solids	05/21/90	
4. pH	05/16/90	

SECTION SUPERVISOR REVIEW & APPROVAL
(Signature) [signature]
(Printed Name) Raphael C. Fratti
(Date) 6/12/90

Q.A. DIRECTOR REVIEW & APPROVAL
(Signature) [signature]
(Printed Name) Patricia M. Zaworski
(Date) 6/12/90

Form QC G-5

QC Inc

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METHODOLOGY SUMMARY

Petroleum Hydrocarbons	USEPA Method 418.1
Total Organic Carbon	USEPA Method 415.1
Total Dissolved Solids	USEPA Method 160.1
pH	USEPA Method 150.1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Well C-14B

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water Lab Sample ID: 208708

Sample Wt/Vol: _____(g/ml)_____ Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	5 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	88 mg/l	<2 mg/l
pH	5/16/90	4.13	N/A

Form QC GEN-1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Well C-14A

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water Lab Sample ID: 208709

Sample Wt/Vol: _____(g/ml)_____ Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	5 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	120 mg/l	<2 mg/l
pH	5/16/90	6.12	N/A

Form QC GEN-1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Well C-29A

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water Lab Sample ID: 208710

Sample Wt/Vol: _____(g/ml)_____ Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	<1 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	220 mg/l	<2 mg/l
pH	5/16/90	4.56	N/A

Form QC GEN-1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Well C-14C

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water Lab Sample ID: 208711

Sample Wt/Vol: _____(g/ml)_____ Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	7 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	90 mg/l	<2 mg/l
pH	5/16/90	4.36	N/A

Form QC GEN-1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Field Blank

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water Lab Sample ID: 208712

Sample Wt/Vol: _____(g/ml)_____ Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	<1 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	<2 mg/l	<2 mg/l
pH	5/16/90	5.73	N/A

Form QC GEN-1

QC Inc

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GENERAL ANALYSIS DATA REPORT

SAMPLE ID. #

Trip Blank

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix (Soil/Water): Water

Lab Sample ID: 208713

Sample Wt/Vol: _____(g/ml)_____

Date Received: 5/7/90

% Moisture: not dec.__ dec.___

RESULTS

Parameter	Date Analyzed	Sample Concentration Units	Method Blank Units
Petroleum Hydrocarbons	5/14/90	<0.5 mg/l	<0.5 mg/l
Total Organic Carbon	5/14/90	<1 mg/l	<1 mg/l
Total Dissolved Solids	5/21/90	<2 mg/l	<2 mg/l
pH	5/16/90	5.35	N/A

Form QC GEN-1

QC Inc

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GENERAL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: QC Inc.

Lab Code: 77166 Contract/P.O. No.: Gannett Fleming

Matrix Spike Sample #: 209037: TOC, PHC 208708: TDS: 208711

Lab Sample ID #: 208708 thru 208713

COMPOUND	AMT ADDED mg/l	SAMPLE RESULT mg/l	CONC. MS mg/l	MS % REC #	QC LIMITS % REC	CONC. Dup. mg/l	Dup. RPD #
TOC	30	33	68	117	80-120	34	3 %
PHC	3.3	<0.5	2.7	82 %	80-120	<0.5	0 %
TDS	369	92	520	117	80-120	88	4 %

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES

* VALUES OUTSIDE OF QC LIMITS

RPD: __0__ out of __3__ outside limits

Spike Recovery: __0__ out of __3__ outside limits

COMMENTS: _____

_____

_____

Form QC GEN-2

QC Inc

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Tier II QA REPORT SHEET

Analyst Name: Wendy Analysis Date: 5/14/90

Client Name: Gannett Fleming Inc Matrix: Liquid

Accession Numbers in this set: (max. 20) 208708, 208709, 208710, 208711, 208712, 208713

TEST PARAMETER: PHC

Access. Number	Spike Added ppm	Sample Result ppm	Spiked Result ppm	Matrix Spike Recovery %	Martix ~~Spike~~ Duplicate ppm	RPD MS/MSD %
208708	3.3	<0.5	2.7	81.8	<0.5	0

PHC Sample Data

Date	I.D. #	Client	ODOR	Spl. Wt.	Final Vol.	Xtra Dil.	Dil. F	Peak mm	ppm PHC	PHC ppm X df.	Init.	
5/14	206225	Risk Enviro. Asses.	1-2	500 ml	100 ml	—	0.2	14.5	3	0.6	WSE	
5/14	206227	Welsh Farms	0	1000 ml	50 ml	—	0.05	12.8	2.5	0.13	WE	
5/14	206934	Merwin & Assoc	0+	500 ml	100 ml	—	0.2	10.5	1.9	<0.5	WE	
5/14	207468	Willingboro MUA	0	500 ml	100 ml	—	0.2	7.2	1.0	<0.5	WE	
5/14	Blank	—	—	200 ml	100 ml		—	4.8 mm	—	—	WE	
5/14	208111	US Bronze Powder	1	500 ml	100 ml		0.2	11.2 ~~7.8~~ mm	2.1	<0.5	WE	
5/14	208188	RISK ENVIRO ASSES	3	500 ml	100 ml	4→50 12.5	2.5 ~~0.2~~	64.7	29.0	72.5	WE	
5/14	208189	RISK Enviro Asses	1-2	500 ml	100 ml	8→25 3.125	0.625	64.9	29.1	18.2	WE	
5/14	208194	ARC	1	500 ml	100 ml	—	0.2	83.6	39 ~~41.5~~	7.8 ~~8.3~~	WE	
5/14	208708	Gannett Fleming Inc	0+	300 ml	100 ml	—	0.333	8.7	1.1	<0.5	WE	
5/14	208708	Gannett Fleming Inc	0+	300 ml	100 ml	—	0.333	8.5	1.0	<0.5	WE	DUPLICATE
5/14	208708	Gannett Fleming Inc	0+	300 ml	100 ml	—	0.333	27.5	8.0	2.7 ~~2.66~~	WE	MATRIX SPIKE
												MATRIX SPIKE DUPLICATE

:CATE EXACTLY HOW THE SPIKES ARE PREPARED:

2ml's of 500ppm

IF ANY SAMPLE IS PART OF A TIER I OR II PACKAGE - THE QA MUST BE RUN THE SAME DAY THE SAMPLES ARE RUN.

CIRCLE SAMPLES THAT NEED TO BE RE-CHECKED.

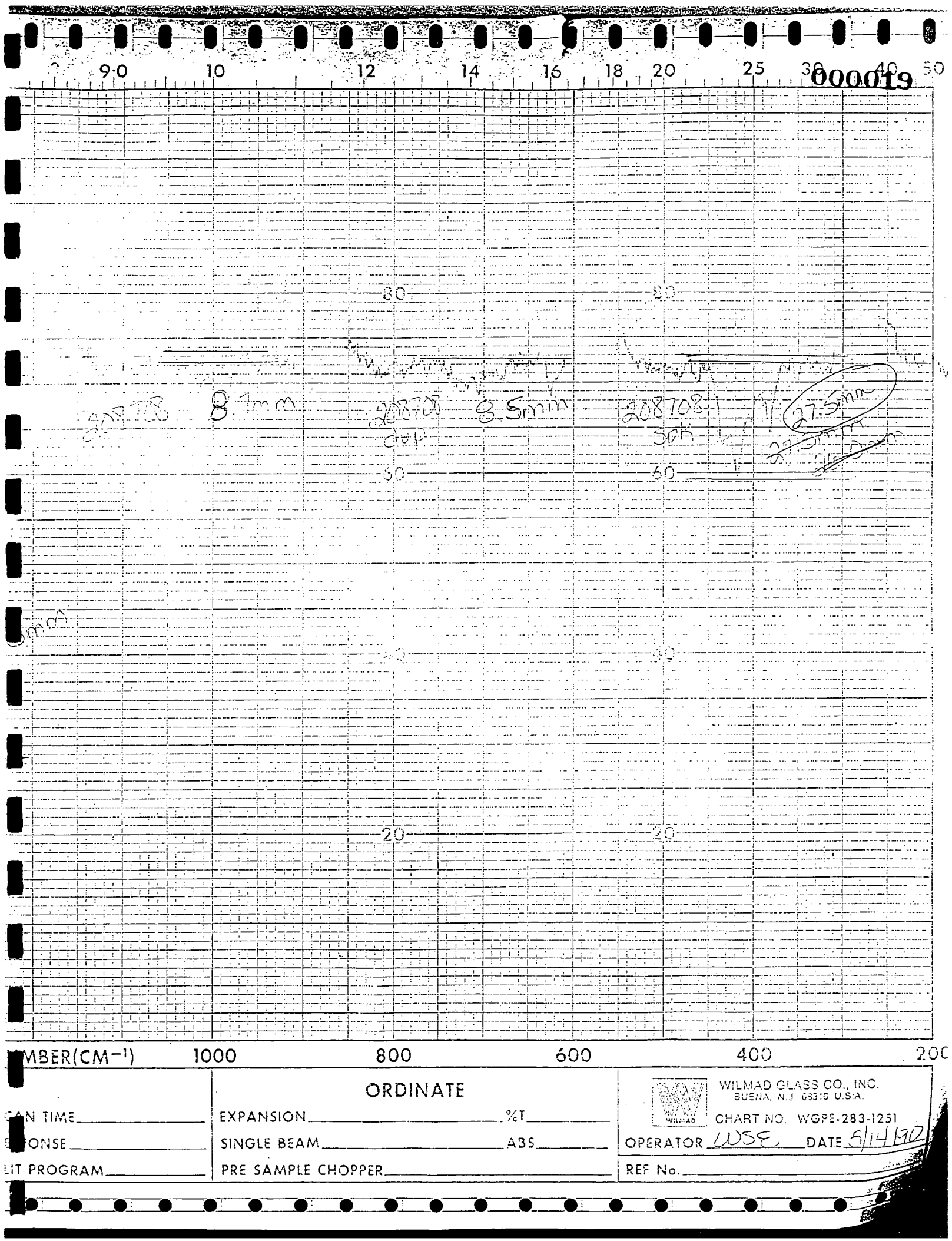
PHC Sample Data

Date	I.D. #	Client	ODOR	Spl. Wt.	Final Vol.	Xtra Dil.	Dil. F	Peak aa	ppm PHC	PHC ppm X df.	Init.	
5/14	208709	Gannett Fleming Inc	O	500 ml	100 ml	—	0.2	7.7	1.0	<0.5	WE	
5/14	208710	Gannett Fleming Inc	O	300 ml	100 ml	—	0.33	6.8	0.8	<0.5	WE	
5/14	208711	Gannett Fleming Inc	O	500 ml	100 ml	—	0.2	6.0	0.6	<0.5	WE	
5/14	208712	Gannett Fleming Inc	O	500 ml	100 ml	—	0.2	7.7	1.0	<0.5	WE	
5/14	208713	Gannett Fleming Inc	O	500 ml	100 ml	—	0.2	50.2	16.6	3.32	WE	
5/14	208713 rev	Gannett Fleming Inc	O	300 ml	100 ml	—	0.33	16.4	3.7	1.2	WE	
5/14	208713 rev	Gannett Fleming	O	200 ml	100 ml	—	0.5	5.8	0.5	<0.5	WE	
												DUPLICATE
												MATRIX SPIKE
												MATRIX SPIKE DUPLICATE

INDICATE EXACTLY HOW THE SPIKES ARE PREPARED:

IF ANY SAMPLE IS PART OF A TIER I OR II PACKAGE - THE QA MUST BE RUN ON THE SAME DAY THE SAMPLES ARE RUN.

CIRCLE SAMPLES THAT NEED TO BE RE-CHECKED.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10
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14
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25
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40
50
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40
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27.5mm
MBER(CM⁻¹)
1000
800
600
400
200
ORDINATE
EXPANSION
%T
SINGLE BEAM
ABS
PRE SAMPLE CHOPPER
WILMAD GLASS CO., INC.
BUENA, N.J. 08310 U.S.A.
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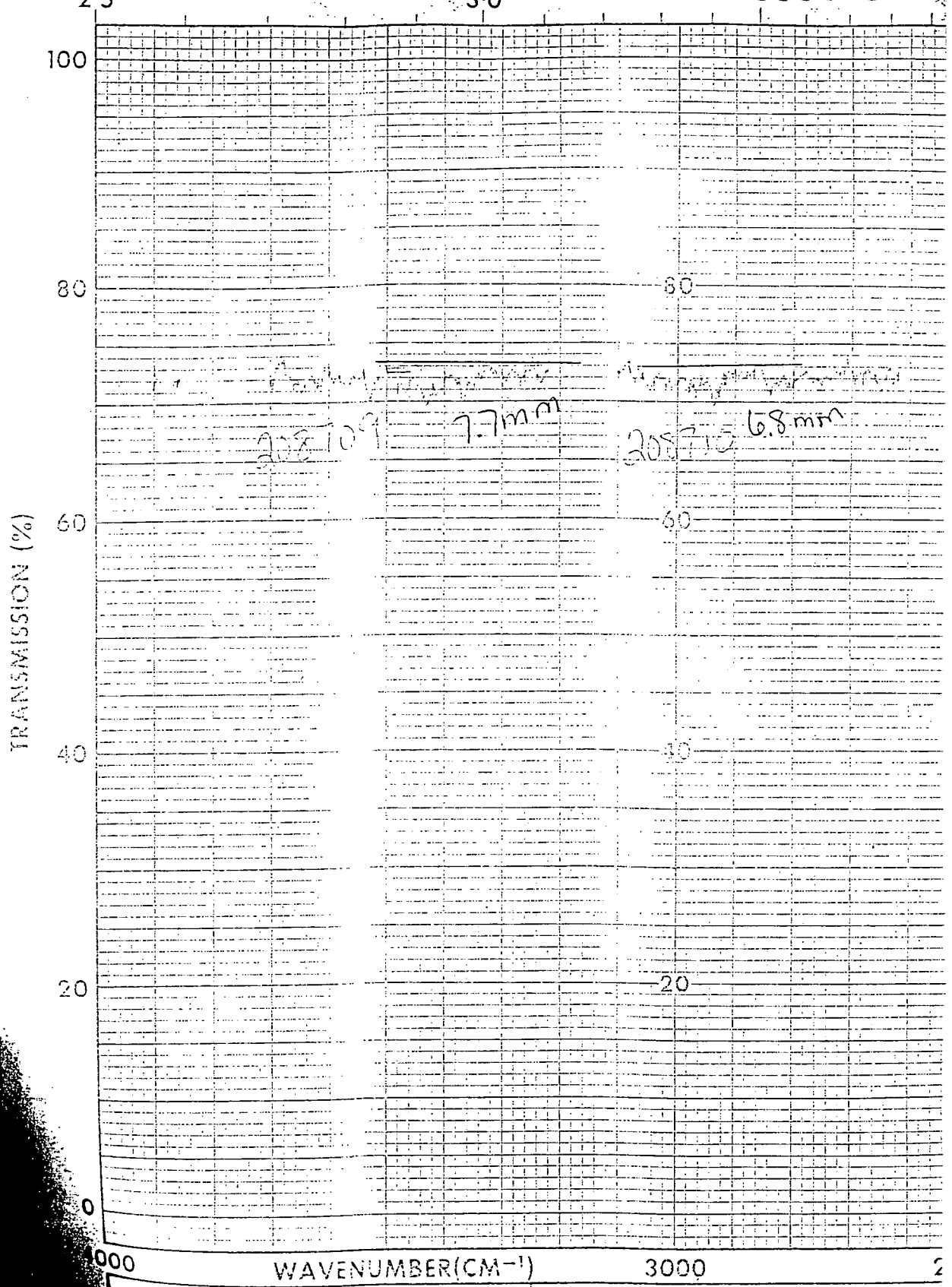
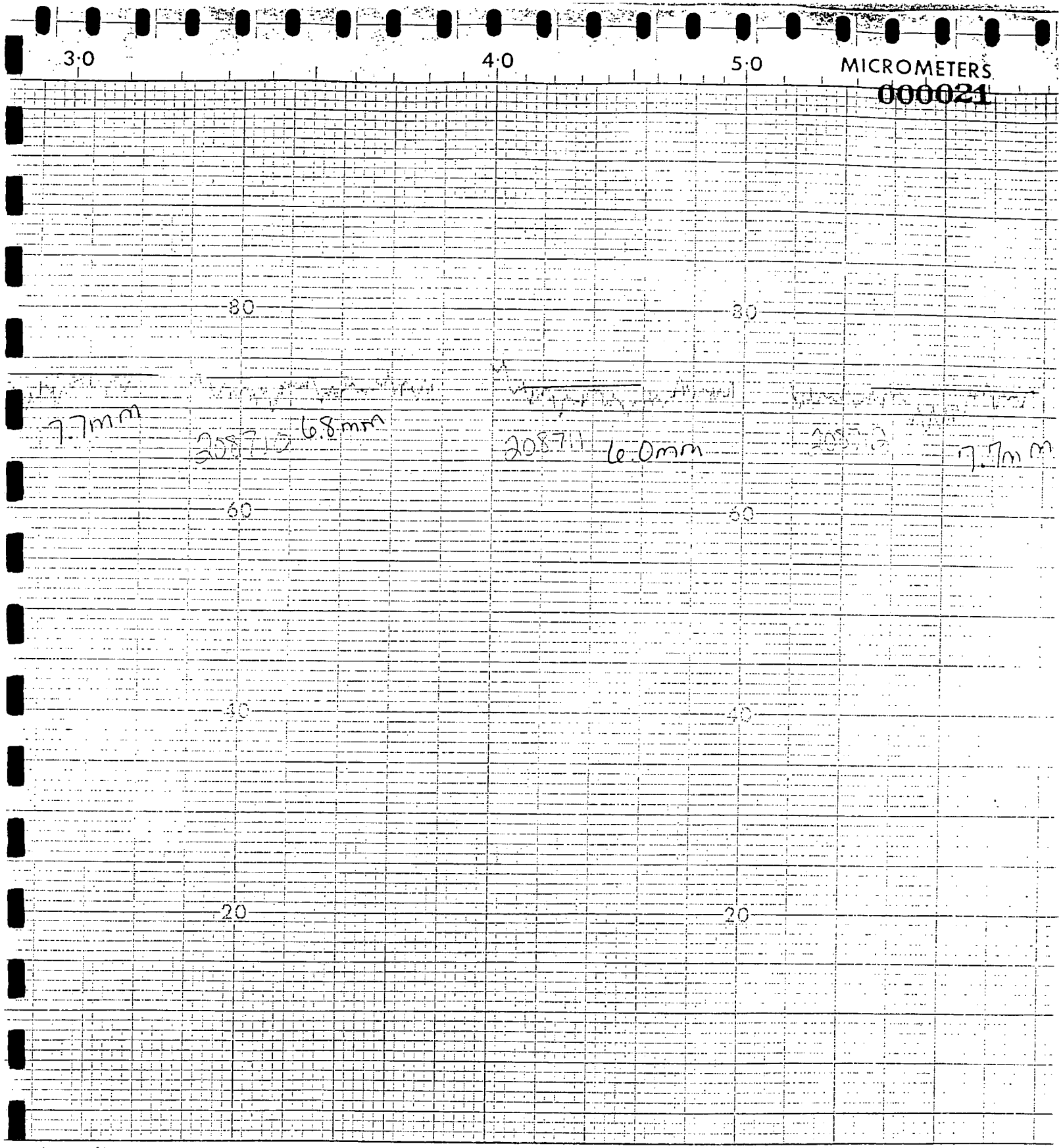
OPERATOR
DATE
REF No.



SAMPLE

REMARKS



REMARKS

SOLVENT

CONCENTRATION

CELL PATH

REFERENCE

REP. SC

HIGH

LOW

000022

5·0 MICROMETERS

80

5.8mm

208713

60

40

20

2500 2000 1800

SOLVENT

CONCENTRATION

CELL PATH

REFERENCE

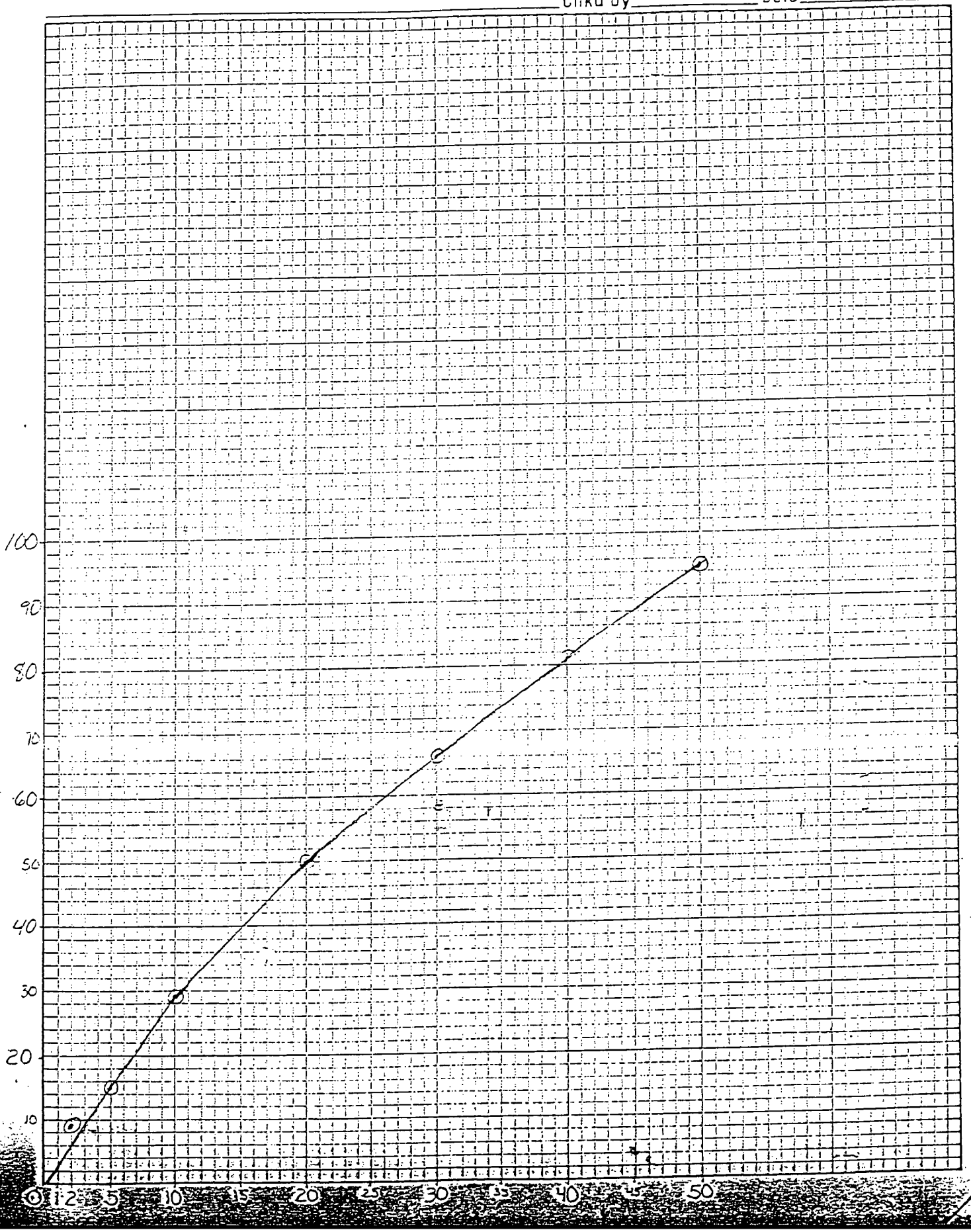
REP.

HIG

LOV

Environmental Resources Management, Inc. West Chester, PA 19380 • (215) 696-9110

Project PHC CURVE W.O. No. Sheet of
Subject PE 281 By SMM Date 4/1/90
Chkd by Date



QC Inc

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

Tier II QA REPORT SHEET

Analyst Name: A.A. Analysis Date: 5/14

Client Name: G.F. Matrix: L6

Accession Numbers in this set: (max. 20) _____

TEST PARAMETER: TOC

Access. Number	Spike Added ppm	Sample Result ppm	Spiked Result ppm	Matrix Spike Recovery %	Martix Spike Duplicate ppm	RPD MS/MSD %
209037	30	33	68	117	34	3%

1990

DATE	30 ppm KHP MEASURED Value	Scaling Factor	High Standard ID	TV	RANGE	MEASURED	Low Standard I.D.	T.V.	RANGE	MEASURED	ANALYST
3-06-90	32.5	0.04917	Alfatrol	42.3	38.1-46.5	41.5	Alfatrol	7.05	6.4-7.8	7.1	WJ
3-07-90	30.6	0.05221	alfatrol	42.3	38.1-46.5	38.8	alfatrol	7.05	6.4-7.8	6.7	P.L
3-08-90	29.5	0.05248	alphatrol	42.3	38.1-46.5	38.8	alphatrol	7.05	6.4-7.8	6.8	WJ
3-09-90	29.6	0.05278	alphatrol	42.3	38.1-46.5	40.6	alphatrol	7.05	6.4-7.8	6.4	WJ
3/19/90	28.7	0.05500	alphatrol	42.3	38.1-46.5	42.8	alphatrol	7.05	6.4-7.8	7.2	P.L
3/20/90	29.3	0.05172	alphatrol	42.3	38.1-46.5	41.0	alphatrol	7.05	6.4-7.8	7.2	P.L
3/22/90	29.8	0.05130	alphatrol	42.3	38.1-46.5	40.9	alphatrol	7.05	6.4-7.8	6.8	P.L
3/28/90	29.7	0.05235	alphatrol	42.3	38.1-46.5	39.2	alphatrol	7.05	6.4-7.8	7.6	P.L
3/30/90	29.9	0.05533	alphatrol	42.3	38.1-46.5	40.5	alphatrol	7.05	6.4-7.8	7.8	P.L
4/2/90	29.4	0.05847	alphatrol	42.3	38.1-46.5	38.7	alphatrol	7.05	6.4-7.8	6.8	P.L
4/9/90	29.4	0.06207	alphatrol	42.3	38.1-46.5	39.9	alphatrol	7.05	6.4-7.8	7.1	wj
4/10/90	27.8	0.06676	alphatrol	42.3	38.1-46.5	40.4	alphatrol	7.05	6.4-7.8	6.5	ac
4/11/90	30.0	0.07136	alphatrol	42.3	38.1-46.5	42.5	alphatrol	7.05	6.4-7.8	6.7	P.L
4/12/90	29.9	0.07009	alphatrol	42.3	38.1-46.5	41.4	alphatrol	7.05	6.4-7.8	7.1	P.L
4/17/90	~~29.5~~ 30.2	0.07132	alphatrol	42.3	38.1-46.5	39.2	alphatrol	7.05	6.4-7.8	7.5	P.L
4/18/90	29.5	0.07289	alphatrol	42.3	38.1-46.5	41.2	alphatrol	7.05	6.4-7.8	7.2	P.L
4/19/90	30.5	0.07225	alphatrol	42.3	38.1-46.5	44.6	alphatrol	7.05	6.4-7.8	7.8	wj
4/20/90	29.7	0.06763	alphatrol	42.3	38.1-46.5	43.5	alphatrol	7.05	6.4-7.8	6.6	P.L
4/24/90	30.1	0.07202	alphatrol	42.3	38.1-46.5	43.8	alphatrol	7.05	6.4-7.8	7.7	P.L
4/25/90	29.8	0.06831	Alpha-Trol	42.3	38.1-46.5	43.3	Alpha-Trol	7.05	6.4-7.8	7.75	T.J
4/26/90	29.6	0.07020	Alpha-Trol	42.3	38.1-46.5	43.8	Alphatrol	7.05	6.4-7.8	6.7	AA
4/27/90	~~32.9~~ 31.6	0.06365	Alphatrol	42.3	38.1-46.5	46.15	Alphatrol	7.05	6.4-7.8	6.06	AA
5/11/90	30.7	0.0859	Alphatrol	42.3	38.1-46.5	31.8	Alphatrol	7.05	6.4-7.8	7.2	AA
5/12/90	30.5	0.0846	Alphatrol	42.3	38.1-46.5	42.7	Alphatrol	7.05	6.4-7.8	6.4	AA
5/13/90	30.8 (30.1)	0.0817	Alphatrol	42.3	38.1-46.5	42.1	Alphatrol	7.05	6.4-7.8	7.2	AA
5/17/90	29.1	0.084	Alphatrol	42.3	38.1-46.5	40.5	Alphatrol	7.05	6.4-7.8	7.8	AA
5/18/90	28.57	0.084	alphatrol	42.3	38.1-46.5	40.8	alphatrol	7.05	6.4-7.8	7.4	AA
5/10/90	31.03	0.078	alphatrol	42.3	38.1-46.5	44.0	alphatrol	7.05	6.4-7.8	6.8	AA
5/11/90	33.67	0.070	Alphatrol	42.3	38.1-46.5	44.8	Alphatrol	7.05	6.4-7.8	7.3	AA
5/14/90	29.15	0.074	Alphatrol	42.3	38.1-46.5	40.5	Alphatrol	7.05	6.4-7.8	6.5	AA
5/16/90	28.8	0.072	Alphatrol	42.3	38.1-46.5	41.7	Alphatrol	7.05	6.4-7.8	6.9	AA
5/17/90	29.8	0.072	Alphatrol	42.3	38.1-46.5	39.3	Alphatrol	7.05	6.4-7.8	7.7	AA
5/21/90	29.3	0.073	Alphatrol	42.3	38.1-46.5	42.7	Alphatrol	7.05	6.4-7.8	6.6	AA
5/22/90	27.6	0.075	Alphatrol	42.3	38.1-46.5	48.9	Alphatrol	7.05	6.4-7.8	7.1	AA
5/23/90	29.6	0.076	Alphatrol	42.3	38.1-46.5	43.1	Alphatrol	7.05	6.4-7.8	7.5	AA
5/25/90	28.9	0.078	Alphatrol	42.3	38.1-46.5	42.75	Alphatrol	7.05	6.4-7.8	7.0	AA
6/1/90	30.6	0.05169	Alphatrol	42.3	38.1-46.5	41.6	Alphatrol	7.05	6.4-7.8	6.7	—
6/5/90	32.8	0.07000	"	"	"	46.7	"	"	"	7.3	—
6/6/90	27.1	0.05167	"	"	"	42.2	"	"	"	6.4	—

000025A

TIC / TOC

05-14-90

Cleaning wp

mv. Ave = 128.19

S.F = 0.074

Hi° Curve – 40.5

Lo Curve – 6.5

30-ppm Reading – 29.1

SA. ID #	
209025	5
209026	1
209027	1
209028	36
209029	13
209030	13
209031	5
209032	<1
209033	<1
209036	1
D 209037	Ave – 33.2 (33.9, 32.5)
turb 209038	47
209039	<1
209394	23
209395	
~~Re 043090~~ S 209037	86.1 (86.0, 50.2)

QA for 209037

spK Cont = 30 ppm

$RPD\% = \frac{(33.9-32.5)100}{Ave=33.2} = 4.2$

spK Ave = (68.14)

$spK\ R\% = \frac{(68.14-33.2)100}{30} = 1$

5/14/90 A.A.

SPL# 00001	00:16:29	TIC =	52.2040 mV	3.66651 ug C	11.0308 ppm
SPL# 00001	00:21:29	TOC =	12.9802 mV	0.91173 ug C	2.86708 ppm
SPL# 00001	00:24:34	TIC =	3.00580 mV	0.21112 ug C	0.66392 ppm
SPL# 00001	00:29:34	TOC =	29.0017 mV	2.03708 ug C	6.40592 ppm
SPL# 00002	00:32:39	TIC =	2.47183 mV	0.17362 ug C	0.54597 ppm
SPL# 00002	00:37:39	TOC =	24.8445 mV	1.74508 ug C	5.48767 ppm
SPL# 00002	00:40:44	TIC =	2.61229 mV	0.18348 ug C	0.57700 ppm
SPL# 00002	00:45:44	TOC =	13.4202 mV	0.94263 ug C	2.96426 ppm
SPL# 00003	00:48:49	TIC =	2.07876 mV	0.14601 ug C	0.45915 ppm
SPL# 00003	00:53:49	TOC =	6.88990 mV	0.48394 ug C	1.52185 ppm
SPL# 00003	00:56:54	TIC =	2.05070 mV	0.14404 ug C	0.45295 ppm
SPL# 00003	01:01:54	TOC =	5.27062 mV	0.37020 ug C	1.16418 ppm
SPL# 00001	01:07:55	TIC =	6.25051 mV	0.43903 ug C	1.38062 ppm
SPL# 00001	01:12:55	TOC =	2.33479 mV	0.16399 ug C	0.51570 ppm
SPL# 00001	01:16:31	TIC =	4.44205 mV	0.31201 ug C	0.98116 ppm
SPL# 00001	01:21:31	TOC =	128.799 mV	9.04682 ug C	28.4491 ppm
SPL# 00001	01:24:36	TIC =	5.43021 mV	0.38141 ug C	1.19943 ppm
SPL# 00001	01:29:36	TOC =	127.260 mV	8.93877 ug C	28.1093 ppm
SPL# 00001	01:36:14	TIC =	6.76037 mV	0.47484 ug C	1.49323 ppm
SPL# 00001	01:41:14	TOC =	162.618 mV	11.4223 ug C	35.9192 ppm
SPL# 00001	01:44:19	TIC =	7.27077 mV	0.51069 ug C	1.60597 ppm
SPL# 00001	01:49:19	TOC =	167.603 mV	11.7724 ug C	37.0203 ppm
SPL# 00001	01:53:07	TIC =	4.97822 mV	0.34967 ug C	1.09959 ppm
SPL# 00001	01:58:07	TOC =	183.544 mV	12.8921 ug C	40.5413 ppm
SPL# 00001	02:01:12	TIC =	5.37369 mV	0.37744 ug C	1.18694 ppm
SPL# 00001	02:06:12	TOC =	183.970 mV	12.9221 ug C	40.6354 ppm
SPL# 00002	02:09:17	TIC =	8.66293 mV	0.60848 ug C	1.91347 ppm
SPL# 00002	02:14:17	TOC =	12.8923 mV	0.90555 ug C	2.84766 ppm
SPL# 00002	02:17:22	TIC =	8.32162 mV	0.58451 ug C	1.83808 ppm
SPL# 00002	02:22:22	TOC =	11.5457 mV	0.81097 ug C	2.55022 ppm
SPL# 00001	02:26:14	TIC =	6.22220 mV	0.43704 ug C	1.37436 ppm
SPL# 00001	02:31:14	TOC =	21.4650 mV	1.50770 ug C	4.74119 ppm
SPL# 00001	02:43:50	TIC =	4.21647 mV	0.29616 ug C	0.93133 ppm
SPL# 00001	02:48:50	TOC =	29.5162 mV	2.07322 ug C	6.51954 ppm
SPL# 00001	03:14:06	TIC =	3.20267 mV	0.23834 ug C	0.74951 ppm
SPL# 00001	03:19:06	TOC =	124.586 mV	9.27178 ug C	29.1565 ppm
SPL# 00001	03:43:37	TIC =	237.129 mV	17.6473 ug C	55.4948 ppm
SPL# 00001	03:48:37	TOC =	20.4524 mV	1.52209 ug C	4.78643 ppm

TOC

[illegible]	[illegible]	TIC =	[illegible] mV	[illegible] ug C	[illegible] ppm	209223
[illegible]	[illegible]	TOC =	[illegible] mV	[illegible] ug C	[illegible] ppm	
[illegible] 00014	07:13:47	TIC =	[illegible] mV	[illegible] ug C	8.41211 ppm	
SPL# 00014	07:18:47	TOC =	99.7336 mV	7.42225 ug C	23.3404 ppm	209394
SPL# 00014	07:21:52	TIC =	35.9450 mV	2.67505 ug C	8.41211 ppm	
SPL# 00014	07:26:52	TOC =	102.891 mV	7.65719 ug C	24.0792 ppm	
SPL# 00015	07:29:57	TIC =	54.0345 mV	4.02129 ug C	12.6456 ppm	
SPL# 00015	07:34:57	TOC =	313.774 mV	23.3513 ug C	73.4319 ppm	209395
SPL# 00015	07:38:02	TIC =	60.1283 mV	4.47480 ug C	14.0717 ppm	
SPL# 00015	07:43:02	TOC =	318.826 mV	23.7273 ug C	74.6141 ppm	
SPL# 00001	07:46:28	TIC =	56.4327 mV	4.19976 ug C	13.2068 ppm	208708
SPL# 00001	07:51:28	TOC =	42.3858 mV	3.15439 ug C	9.91945 ppm	
SPL# 00001	07:54:33	TIC =	53.9412 mV	4.01435 ug C	12.6237 ppm	
SPL# 00001	07:59:33	TOC =	21.3755 mV	1.59078 ug C	5.00247 ppm	
SPL# 00002	08:02:38	TIC =	87.9521 mV	6.54547 ug C	20.5832 ppm	208709
SPL# 00002	08:07:38	TOC =	27.4314 mV	2.04146 ug C	6.41970 ppm	
SPL# 00002	08:10:43	TIC =	88.3152 mV	6.57248 ug C	20.6682 ppm	
SPL# 00002	08:15:43	TOC =	22.6289 mV	1.68406 ug C	5.29578 ppm	
SPL# 00003	08:18:48	TIC =	2.97768 mV	0.22160 ug C	0.69685 ppm	208710
SPL# 00003	08:23:48	TOC =	2.42089 mV	0.18016 ug C	0.56655 ppm	
SPL# 00003	08:26:53	TIC =	2.83711 mV	0.21114 ug C	0.66396 ppm	
SPL# 00003	08:31:53	TOC =	1.33143 mV	0.09908 ug C	0.31159 ppm	
SPL# 00004	08:34:58	TIC =	80.5431 mV	5.99408 ug C	18.8493 ppm	208711
SPL# 00004	08:39:58	TOC =	30.6072 mV	2.27781 ug C	7.16292 ppm	
SPL# 00004	08:43:03	TIC =	79.1764 mV	5.89237 ug C	18.5295 ppm	
SPL# 00004	08:48:03	TOC =	30.5162 mV	2.27104 ug C	7.14162 ppm	
SPL# 00005	08:51:08	TIC =	2.94956 mV	0.21950 ug C	0.69028 ppm	208712
SPL# 00005	08:56:08	TOC =	1.21689 mV	0.09056 ug C	0.28478 ppm	
SPL# 00005	08:59:13	TIC =	2.55610 mV	0.19022 ug C	0.59819 ppm	
SPL# 00005	09:04:13	TOC =	0.58740 mV	0.04371 ug C	0.13746 ppm	
SPL# 00006	09:07:18	TIC =	2.27525 mV	0.16932 ug C	0.53247 ppm	208713
SPL# 00006	09:12:18	TOC =	0.33012 mV	0.02456 ug C	0.07725 ppm	
SPL# 00006	09:15:23	TIC =	2.07876 mV	0.15470 ug C	0.48648 ppm	
SPL# 00006	09:20:23	TOC =	-0.06982 mV	-0.00519 ug C	-0.01634 ppm	
SPL# 00007	09:23:28	TIC =	11.9746 mV	0.89116 ug C	2.80240 ppm	13987 push
SPL# 00007	09:28:28	TOC =	654.928 mV	48.7402 ug C	153.271 ppm	
SPL# 00007	09:31:33	TIC =	16.6085 mV	1.23602 ug C	3.88685 ppm	
SPL# 00007	09:36:33	TOC =	667.654 mV	49.6873 ug C	156.250 ppm	
SPL# 00008	09:39:38	TIC =	10.4016 mV	0.77409 ug C	2.43427 ppm	13988 push
SPL# 00008	09:44:38	TOC =	2874.86 mV	213.949 ug C	672.796 ppm	
SPL# 00008	09:47:43	TIC =	19.4796 mV	1.44969 ug C	4.55877 ppm	
SPL# 00008	09:52:43	TOC =	3163.37 mV	235.420 ug C	740.315 ppm	

L# 00002	03:59:47	TIC = [illegible] mV	[illegible] ug C		[illegible] ppm
# 00002	[illegible]	TOC = [illegible] mV	[illegible] ug C		[illegible] ppm
L# 00002	04:07:02	TIC = [illegible] mV	[illegible] ug C	209025	[illegible] ppm
# 00002	04:12:02	TOC = 5.44386 mV	0.40513 ug C		1.27401 ppm
# 00003	04:15:57	TIC = 114.079 mV	8.48884 ug C		26.6976 ppm
L# 00003	04:20:57	TOC = 4.46296 mV	0.33213 ug C	209027	1.04446 ppm
# 00003	04:24:02	TIC = 113.631 mV	8.45653 ug C		26.5929 ppm
L# 00003	04:29:02	TOC = 4.63592 mV	0.34500 ug C		1.08493 ppm
# 00004	04:32:07	TIC = 290.207 mV	21.5974 ug C		67.9165 ppm
# 00004	04:37:07	TOC = 153.456 mV	11.4205 ug C	209028	35.9134 ppm
# 00004	04:40:12	TIC = 284.981 mV	21.2085 ug C		66.6933 ppm
# 00004	04:45:12	TOC = 158.416 mV	11.7894 ug C		37.0736 ppm
# 00005	04:48:17	TIC = 616.429 mV	45.8751 ug C		144.261 ppm
# 00005	04:53:17	TOC = 54.0135 mV	4.01973 ug C	209029	12.6407 ppm
L# 00005	04:56:22	TIC = 601.166 mV	44.7392 ug C		140.689 ppm
# 00005	05:01:22	TOC = 53.4121 mV	3.97497 ug C		12.4999 ppm
L# 00006	05:04:27	TIC = 352.473 mV	26.2313 ug C		82.4885 ppm
# 00006	05:09:27	TOC = 54.5522 mV	4.05982 ug C	209030	12.7667 ppm
L# 00006	05:12:32	TIC = 330.011 mV	24.5597 ug C		77.2316 ppm
# 00006	05:17:32	TOC = 53.9502 mV	4.01502 ug C		12.6258 ppm
# 00007	05:20:37	TIC = 141.343 mV	10.5189 ug C		33.0783 ppm
# 00007	05:25:37	TOC = 20.9287 mV	1.55753 ug C	209031	4.89788 ppm
# 00007	05:28:42	TIC = 138.332 mV	10.2948 ug C		32.3736 ppm
# 00007	05:33:42	TOC = 21.8825 mV	1.62851 ug C		5.12110 ppm
00008	05:36:47	TIC = 43.9056 mV	3.26749 ug C		10.2751 ppm
# 00008	05:41:47	TOC = 1.13100 mV	0.08416 ug C	209032	0.26468 ppm
00008	05:44:52	TIC = 43.8751 mV	3.26522 ug C		10.2680 ppm
# 00008	05:49:52	TOC = 1.18826 mV	0.08843 ug C		0.27808 ppm
00009	05:52:57	TIC = 2.41566 mV	0.17977 ug C		0.56533 ppm
# 00009	05:57:57	TOC = -1.83708 mV	-0.13671 ug C	209033	-0.42992 ppm
00009	06:01:02	TIC = 1.99457 mV	0.14843 ug C		0.46678 ppm
00009	06:06:02	TOC = -2.17838 mV	-0.16211 ug C	209034	-0.50980 ppm
# 00010	06:09:07	TIC = 50.8120 mV	3.78147 ug C		11.8914 ppm
00010	06:14:07	TOC = 4.26125 mV	0.31712 ug C		0.99725 ppm
# 00010	06:17:12	TIC = 51.3993 mV	3.82518 ug C		12.0289 ppm
00010	06:22:12	TOC = 4.66475 mV	0.34715 ug C	209035	1.09168 ppm
# 00011	06:25:17	TIC = 554.118 mV	41.2379 ug C		129.679 ppm
00011	06:30:17	TOC = 139.267 mV	10.3644 ug C		32.5924 ppm
# 00011	06:33:22	TIC = 561.396 mV	41.7795 ug C		131.382 ppm
# 00011	06:38:22	TOC = 145.261 mV	10.8104 ug C	209036	33.9950 ppm
# 00012	06:41:27	TIC = 757.930 mV	56.4058 ug C		177.379 ppm
# 00012	06:46:27	TOC = 201.939 mV	15.0285 ug C		47.2593 ppm
# 00012	06:49:32	TIC = 760.083 mV	56.5660 ug C	209038	177.880 ppm
# 00012	06:54:32	[illegible]	[illegible]		[illegible]

SPL# 00001	09:56:14	TIC =	19.2761 mV	1.43454 ug C	4.51114 ppm
SPL# 00001	10:01:14	TOC =	1246.44 mV	92.7609 ug C	291.701 ppm
SPL# 00001	10:04:19	TIC =	18.6950 mV	1.39129 ug C	4.37514 ppm
SPL# 00001	10:09:19	TOC =	950.615 mV	70.7455 ug C	222.470 ppm
SPL# 00002	10:12:24	TIC =	10.0876 mV	0.75072 ug C	2.36078 ppm
SPL# 00002	10:17:24	TOC =	936.831 mV	69.7197 ug C	219.244 ppm
SPL# 00002	10:20:29	TIC =	5.57154 mV	0.41463 ug C	1.30389 ppm
SPL# 00002	10:25:29	TOC =	913.248 mV	67.9647 ug C	213.725 ppm
SPL# 00003	10:28:34	TIC =	38.1425 mV	2.83859 ug C	8.92640 ppm
SPL# 00003	10:33:34	TOC =	657.807 mV	48.9545 ug C	153.945 ppm
SPL# 00003	10:36:39	TIC =	32.3228 mV	2.40549 ug C	7.56443 ppm
SPL# 00003	10:41:39	TOC =	606.933 mV	45.1685 ug C	142.039 ppm
SPL# 00004	10:44:44	TIC =	28.0155 mV	2.08493 ug C	6.55639 ppm
SPL# 00004	10:49:44	TOC =	178.294 mV	13.2688 ug C	41.7257 ppm
SPL# 00004	10:52:49	TIC =	27.6015 mV	2.05412 ug C	6.45951 ppm
SPL# 00004	10:57:49	TOC =	173.502 mV	12.9121 ug C	40.6042 ppm
SPL# 00005	11:00:54	TIC =	31.3691 mV	2.33451 ug C	7.34124 ppm
SPL# 00005	11:05:54	TOC =	252.533 mV	18.7937 ug C	59.0997 ppm
SPL# 00005	11:08:59	TIC =	27.2174 mV	2.02554 ug C	6.36962 ppm
SPL# 00005	11:13:59	TOC =	240.103 mV	17.8686 ug C	56.1907 ppm
SPL# 00006	11:17:04	TIC =	33.9362 mV	2.52556 ug C	7.94200 ppm
SPL# 00006	11:22:04	TOC =	281.850 mV	20.9755 ug C	65.9608 ppm
SPL# 00006	11:25:09	TIC =	29.3187 mV	2.18192 ug C	6.86138 ppm
SPL# 00006	11:30:09	TOC =	289.813 mV	21.5681 ug C	67.8243 ppm
SPL# 00007	11:33:14	TIC =	28.1338 mV	2.09374 ug C	6.58409 ppm
SPL# 00007	11:38:14	TOC =	687.555 mV	51.1684 ug C	160.907 ppm
SPL# 00007	11:41:19	TIC =	36.2154 mV	2.69518 ug C	8.47540 ppm
SPL# 00007	11:46:19	TOC =	643.711 mV	47.9055 ug C	150.646 ppm
SPL# 00008	11:49:24	TIC =	27.0402 mV	2.01235 ug C	6.32816 ppm
SPL# 00008	11:54:24	TOC =	455.995 mV	33.9355 ug C	106.715 ppm
SPL# 00008	11:57:29	TIC =	29.2594 mV	2.17751 ug C	6.84750 ppm
SPL# 00008	12:02:29	TOC =	455.577 mV	33.9044 ug C	106.618 ppm
SPL# 00001	12:15:56	TIC =	5.85433 mV	0.43568 ug C	1.37007 ppm
SPL# 00001	12:20:56	TOC =	367.709 mV	27.3652 ug C	86.0542 ppm
SPL# 00001	12:24:01	TIC =	8.52068 mV	0.63411 ug C	1.99408 ppm
SPL# 00001	12:29:01	TOC =	214.913 mV	15.9940 ug C	50.[illegible] ppm
SPL# 00002	12:32:06	TIC =	6.93044 mV	0.51576 ug C	1.[illegible] ppm
SPL# 00002	12:37:06	TOC =	[illegible] mV	[illegible] ug C	[illegible]
SPL# 00002	[illegible]	TIC =	[illegible]	[illegible]	[illegible]
SPL# 00002	[illegible]	TOC =	167.[illegible] mV	12.[illegible] ug C	[illegible]

(dil 5-50) 13987

(dil 5-50) 13986

1.g → 100l

[end time] 043090

204190

The first ready sample decomposed 204189

203486

208922

206021

204002

205807

TOTAL DISSOLVED SOLIDS - Dried at 180C
MDL = 2 mg/l

TDS Calculation: mg/l = net wt. / sample size X 1,000,000
Use less sample when net wt. >0.2 g.

RPD: difference / average X 100 Round TDS results to 2 sig. figures.

Circle samples to be re-checked. Dup and spike: every set of ten or less.

KNOWN

Date	I.D. #	True Value mg/l	Range mg/l	Meas. Value mg/l	Recov. %	Init.
12/21	WD 406	220.8	198.7 - 242.9	240		IA

Recovery % = Measured Value / True Value X 100

SPIKE DATA

Date	Access. #	Spike Sol'n Conc. mg/l A	ml Spike Sol'n B	ml Sample in Spike C	Spike Conc. mg/l D	Ave. Sample Result mg/l E	Spiked Result mg/l F	% Spike Rec.	Init.
5-21	208711	368.6	25	25	368.6	90	524	117.7	IA
5-21	208025	368.6	25	25	383.3	1746	2184	114.3	IA

Spike Conc. (D) = A X B / C % Spik Rec. = (F - E) / D X 100

TOTAL DISSOLVED SOLIDS MDL = 2 mg/l
Dried at 180C

Date	Access. #	Pan #	Pan Wt. g.	Sample Size ml	Dry Pan & Sample Wt. g.	Net Wt. g.	TDS mg/l	RPD %	Init.
5/21	WD406 ~~043561~~	1	2.0530	25ml	2.0500	0.0060	240		IA
5/21	208713	2	2.0727	25	2.0727	0	<2		IA
5/21	208712	3	2.0630	25	2.0630	0	<2		IA
5/21	208708	4	2.0555	25	2.0577	0.0022	88		IA
5/21	208709	5	2.0621	25	2.0650	0.0029	116		IA
5/21	208710	6	2.0668	25	2.0723	0.0055	220		IA
5/21	208711	7	2.0636	25	2.0659	0.0023	92	4%	IA
5/21	208711 Dup	8	2.0633	25	2.0655	0.022	88		IA
5/21	SPK 208711	9	2.0800	25+25	2.0931	0.0131	524		IA
5/21	206198	10	2.0984	25	2.1002	0.0018	72		IA
5/21	206199	11	2.0541	25	2.0861	0.032	1280		IA
5/21	208110	12	2.0598	25	2.0723	0.0125	500		IA
5/21	208107	13	2.0292	25	2.0409	0.0117	469		IA
5/21	208108	14	2.0389	25	2.0432	0.0043	172		IA
5/21	207388	15	2.0276	25	2.0813	0.0537	2148		IA
5/21	206224	16	2.0431	25	2.0497	0.0066	264		IA
5/21	207424	17	2.0652	25	2.0664 ~~2.0497~~	0.0012	48		IA
5/21	208395	18	2.0578	25	2.0680 ~~2.0664~~	0.0102	408		IA
5/21	208132	19	2.0758	25	2.0816	0.0058	232		IA
5/21	208410	20	2.0751	25	2.0782	0.0024	96		IA
5/21	208025	21	2.0615	25	2.1072	0.0457	1828	9.4%	IA
5/21	Dup 208025	22	2.0801	25	2.1217	0.0416	1664		IA
5/21	SPK 208025	23	2.0472	25+25	2.1018	0.0546	2184		IA
5/21	043544	24	2.0788	25	2.0824	0.0036	144		IA
5/21	043540	25	2.0733	25	2.0788	0.0055	220		IA

TEST

DATE	Analyst	PRE CALIBRATION pH 7.00	pH 4.00	TEMP °C	POST CALIBRATION pH 7.00	pH 4.00	pH 10.00	EH [illegible]
5-26-90	DL	7.00	4.00	23°C	7.01	4.00	9.98	0.9968
5-27-90	MT	7.00	4.00	21°C	6.98	4.00	9.98	1.0017
5-30-90	DL	7.00	4.00	21°C	6.98	4.00	9.98	0.9994
5-1-90	MT	7.00	4.00	22°C	7.00	4.02	9.98	1.000[illegible]
5-2-90	MT	7.00	4.00	22°C	7.00	4.00	9.98	1.0017
5-2-90	DW	7.00	4.00	23°C	7.02	4.01	10.01	0.9915
5-3-90	DL	7.00	4.00	22°C	7.00	4.00	10.00	0.9926
5-3-90	DW	7.00	4.00	22°C	6.98	4.00	9.9[illegible]	1.0017
5-4-90	MT	7.00	4.00	22°C	7.00	4.00	10.00	0.995[illegible]
5-4-90	DW	7.00	4.00	22°C	7.00	4.00	9.95	0.994[illegible]
5-7-90	DW	7.00	4.00	22°C	7.00	4.00	9.99	0.9903
5-8-90	MT	7.00	4.00	22°C	7.00	4.02	9.98	1.001[illegible]
5-8-90	DW	7.00	4.00	22°C	7.00	4.00	9.98	0.9903
5-9-90	MT	7.00	4.00	22°C	7.00	4.00	9.98	0.99[illegible]
5-9-90	DW	7.00	4.00	22°C	7.00	4.00	9.98	0.9903
5-10-90	MT	7.00	4.00	21°C	7.00	4.00	9.98	1.0017
5-10-90	DW	7.00	4.00	22°C	7.00	4.00	10.00	0.9903
5-11-9[illegible]	KP	7.00	4.00	25°C	7.00	4.00	9.96	0.99[illegible]8
5-11-90	DW	7.00	4.00	22°C	7.00	4.00	9.94	1.0005
5-14-90	MT	7.00	4.00	22°C	7.00	4.00	9.97	1.0004
5-14-90	DW	7.00	4.00	22°C	7.00	3.95	10.04	0.9732
5-15-90	DL	7.00	4.00	22°C	7.01	4.00	9.97	0.9914
5-15-90	DW	7.00	4.00	22°C	7.00	4.02	9.97	0.9960
5-16-90	DL	7.00	4.00	22°C	7.00	4.02	9.97	0.9960
5-16-90	DW	7.00	4.00	22°C	7.00	4.00	9.99	0.9890
5-17-90	DL	7.00	4.00	23°C	7.00	4.00	9.97	0.9972
5-17-9[illegible]	DW	7.00	4.00	23°C	7.00	4.00	9.9[illegible]	0.9971
5-18-90	DL	7.00	4.00	22°C	7.00	4.00	9.98	0.9903
5-18-90	DW	7.00	4.00	22°C	7.00	3.97	9.98	0.984[illegible]
5-21-90	DL	7.00	4.00	21°C	7.00	3.98	9.97	0.9937
	DW	7.00	4.00	22°C	6.97	3.98	9.89	1.0002
5-22-90	DL	7.00	4.00	21°C	7.00	4.00	9.97	0.9994
5-22-90	DW	7.00	4.00	28°C	7.00	3.98	9.98	0.9855
5-23-90	DL	7.00	4.00	21°C	7.00	3.98	9.98	0.9937
5-23-90	DW	7.00	4.00	22°C	7.00	3.98	9.91	0.9[illegible]
5-24-90	MT	7.00	4.00	22°C	7.00	4.03	9.97	1.00[illegible]
5-25-90	DL	7.00	4.00	23°C	7.00	4.00	9.97	0.992[illegible]
5-25-90	DW	7.00	4.00	26°C	7.00	4.00		0.99[illegible]
5-26-90	DL	7.00	4.00	24°C	7.00	4.00	9.99	0.988[illegible]
5-29-90	MT	7.00	4.00	21°C	7.00	4.00	9.99	1.00[illegible]

5-16-90 (ph)

	Sample #	(ph)	
Tier I	DUP	4.13	
Tier I	208708	4.13	RPD=0%
Tier I	208709	6.12	
Tier I	208710	4.56	
Tier I	208711	4.36	
Tier I	208712	5.73	
Tier I	208713	5.34	RPD= .199%
	DUP	5.35	

Mary D.

ATTACHMENT B
Ground Water Analysis Forms

DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

R	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE (YR. MO. DAY)	NJ LAB CERT. NO.	WQM USE
1	NJ 0023540 (2–8)	29-20668-5 (9–16)	900507 (17–22)	77166 (23–27)	28

77648

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 90 (MO. YR.) TO 12 90 (MO. YR.)

Owners Well No. C-14-A (C-14-4)

SUBMIT WITH SIGNED T-VWX-014

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
	X			X			X			X		Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		104.1	
	X			X			X			X		Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		104.1	
	X			X			X			X		Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	7.50	
	X			X			X			X		Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	7.50	
												Arsenic, Dissolved	UG/L as As	01000		
												Barium, Dissolved	UG/L as Ba	01005		
												Biochemical Oxygen Demand - 5 Day	MG/L	00310		
												Cadmium, Dissolved	UG/L as Cd	01025		
												Chloride, Dissolved	UG/L as Cl	82285		
												Chromium, Dissolved	UG/L as Cr	01030		
												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220		
												Chemical Oxygen Demand (COD), Dissolved	MG/L	00341		
												Coliform Group	N/100 ML	74056		
												Color	Pt - Co	00080		
												Copper, Dissolved	UG/L as Cu	01040		
												Cyanide, Total	MG/L as CN	00720		
												Endrin, Total	UG/L	39390		
												Fluoride, Dissolved	MG/L as F	00950		
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
												Hardness, Total as $CaCO_3$	MG/L	00900		
												Iron, Dissolved	UG/L as Fe	01046		
	X						X					Lead, Dissolved	UG/L as Pb	01049		
												Lindane, Total	UG/L	39782		
												Manganese, Dissolved	UG/L	01056		
												Mercury, Dissolved	UG/L	71890		

VALUE CODING RULES AND REMARK CODES ON REVERSE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
S	NJ 0023540	29-20668-5	900507	77166	

(77648)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 90 (MO. YR.) TO 12 90 (MO. YR.)

Owner's Well No. C-14-A
(C-14-4)

SUBMIT WITH SIGNED T-VWX-014

SAMPLING MONTHS

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
												Methoxychlor, Total	UG/L	39480		
												Methylene Blue Active Substances	MG/L	38260		
												Nitrogen, Ammonia, Dissolved $NH_3 + NH_4$ as N	MG/L as N	00608		
												Nitrogen, Nitrate Dissolved	MG/L as N	00618		
												Odor	T.O.N.	00085		
x			x			x				x		pH	Standard Units	00400	5.48	
												Phenols, Total Recoverable	UG/L	32730		
												Radium 226, Dissolved	Pc/L	09503		
												Radium 228, Dissolved	Pc/L	81366		
												Selenium, Dissolved	UG/L	01145		
												Silver, Dissolved	UG/L	01075		
												Sodium, Dissolved	MG/L	00930		
												Sulfate, Dissolved (as SO_4)	MG/L	00946		
x			x			x				x		Total Dissolved Solids (TDS)	PPM	70300	1201.	
x			x			x				x		Total Organic Carbon (TOC)	PPM	00680	6.	
												Total Organic Halogen (TOX)	UG/L	70353		
												Toxaphene	UG/L	39400		
												Turbidity	NTU	00076		
												Zinc, Dissolved	UG/L	01090		
												2, 4–D, Total	UG/L	39370		
												2, 4, 5–TP, Total	UG/L	39045		
x			x			x				x		Petroleum Hydrocarbons	PPM	45501	0.5	K

29 32 33 34 40 41
42 46 47 53 54
55 59 60 66 67
68 72 73 79 80

VALUE CODING RULES AND
REMARK CODES ON REVERSE

DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

R (1) | NJPDES NO. NJ 0 0 2 3 5 4 0 (2–8) | WELL PERMIT NO. 2 9 - 2 0 6 6 6 - 9 (9–16) | SAMPLE DATE YR. MO. DAY 9 0 0 5 0 7 (17–22) | NJ LAB CERT. NO. 7 7 1 6 6 (23–27) 77648 | WQM USE (28)

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 0 1 9 0 (MO. YR.) TO 1 2 9 0 (MO. YR.)

Owners Well No. C-14-B (C-14-1)

SUBMIT WITH SIGNED T-VWX-014

SAMPLING MONTHS: Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
	X			X			X			X		Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		110.71	
	X			X			X			X		Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		.108.81	
	X			X			X			X		Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	12.34	
	X			X			X			X		Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	10.51	
												Arsenic, Dissolved	UG/L as As	01000		
												Barium, Dissolved	UG/L as Ba	01005		
												Biochemical Oxygen Demand - 5 Day	MG/L	00310		
												Cadmium, Dissolved	UG/L as Cd	01025		
												Chloride, Dissolved	UG/L as Cl	82285		
												Chromium, Dissolved	UG/L as Cr	01030		
												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220		
												Chemical Oxygen Demand (COD), Dissolved	MG/L	00341		
												Coliform Group	N/100 ML	74056		
												Color	Pt - Co	00080		
												Copper, Dissolved	UG/L as Cu	01040		
												Cyanide, Total	MG/L as CN	00720		
												Endrin, Total	UG/L	39390		
												Fluoride, Dissolved	MG/L as F	00950		
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
												Hardness, Total as $CaCO_3$	MG/L	00900		
												Iron, Dissolved	UG/L as Fe	01046		
	X						X					Lead, Dissolved	UG/L as Pb	01049		
												Lindane, Total	UG/L	39782		
												Manganese, Dissolved	UG/L	01056		
												Mercury, Dissolved	UG/L	71890		

VALUE CODING RULES AND REMARK CODES ON REVERSE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
S	NJ 0 0 2 3 5 4 0	2 9 . 2 0 6 6 6 . 9	9 0 0 5 0 7	7 7 1 6 6	

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 0 1 9 0 (MO. YR.) TO 1 2 9 0 (MO. YR.)

77648

Owner's Well No. C-14-B

(C-14-1)

SUBMIT WITH SIGNED T-VWX-014

SAMPLING MONTHS: Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
												Methoxychlor, Total	UG/L	39480		
												Methylene Blue Active Substances	MG/L	38260		
												Nitrogen, Ammonia, Dissolved $NH_3 + NH_4$ as N	MG/L as N	00608		
												Nitrogen, Nitrate Dissolved	MG/L as N	00618		
												Odor	T.O.N.	00085		
x			x			x				x		pH	Standard Units	00400	4.07	
												Phenols, Total Recoverable	UG/L	32730		
												Radium 226, Dissolved	Pc/L	09503		
												Radium 228, Dissolved	Pc/L	81366		
												Selenium, Dissolved	UG/L	01145		
												Silver, Dissolved	UG/L	01075		
												Sodium, Dissolved	MG/L	00930		
												Sulfate, Dissolved (as SO_4)	MG/L	00946		
x			x			x				x		Total Dissolved Solids (TDS)	PPM	70300	88.	
x			x			x				x		Total Organic Carbon (TOC)	PPM	00680	7.	
												Total Organic Halogen (TOX)	UG/L	70353		
												Toxaphene	UG/L	39400		
												Turbidity	NTU	00076		
												Zinc, Dissolved	UG/L	01090		
												2, 4–D, Total	UG/L	39370		
												2, 4, 5–TP, Total	UG/L	39045		
x			x			x				x		Petroleum Hydrocarbons	PPM	45501	0.5	K

29 32 33 40 41
42 46 47 53 54
55 59 60 66 67
68 72 73 79 80

VALUE CODING RULES AND REMARK CODES ON REVERSE

DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
R	NJ 0023540	29-20669-3	90 05 07	77166	
1	2 8	9 16	17 22	23 27	28

77648

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 90 (MO. YR.) TO 12 90 (MO. YR.)

Owners Well No. C-14-C

(C-14-2)

SUBMIT WITH SIGNED T-VWX-014

SAMPLING MONTHS

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
	x			x			x			x		Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		108.30	
	x			x			x			x		Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		106.13	
	x			x			x			x		Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	12.66	
	x			x			x			x		Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	10.49	
												Arsenic, Dissolved	UG/L as As	01000		
												Barium, Dissolved	UG/L as Ba	01005		
												Biochemical Oxygen Demand - 5 Day	MG/L	00310		
												Cadmium, Dissolved	UG/L as Cd	01025		
												Chloride, Dissolved	UG/L as Cl	82295		
												Chromium, Dissolved	UG/L as Cr	01030		
												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220		
												Chemical Oxygen Demand (COD), Dissolved	MG/L	00341		
												Coliform Group	N/100 ML	74056		
												Color	Pt - Co	00080		
												Copper, Dissolved	UG/L as Cu	01040		
												Cyanide, Total	MG/L as CN	00720		
												Endrin, Total	UG/L	39390		
												Fluoride, Dissolved	MG/L as F	00950		
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
												Hardness, Total as $CaCO_3$	MG/L	00900		
												Iron, Dissolved	UG/L as Fe	01046		
	x						x					Lead, Dissolved	UG/L as Pb	01049		
												Lindane, Total	UG/L	39782		
												Manganese, Dissolved	UG/L	01056		
												Mercury, Dissolved	UG/L	71890		

VALUE CODING RULES AND REMARK CODES ON REVERSE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
S	NJ 0023540	29-20669-3	90 05 07	77166	

77648

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 90 (MO. YR.) TO 12 90 (MO. YR.)

Owner's Well No. C-14-C (C-14-2)

SUBMIT WITH SIGNED T-VWX-014

SAMPLING MONTHS

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
												Methoxychlor, Total	UG/L	39480		
												Methylene Blue Active Substances	MG/L	38260		
												Nitrogen, Ammonia, Dissolved $NH_3 + NH_4$ as N	MG/L as N	00608		
												Nitrogen, Nitrate Dissolved	MG/L as N	00618		
												Odor	T.O.N.	00085		
x			x			x				x		pH	Standard Units	00400	4.29	
												Phenols, Total Recoverable	UG/L	32730		
												Radium 226, Dissolved	Pc/L	09503		
												Radium 228, Dissolved	Pc/L	81366		
												Selenium, Dissolved	UG/L	01145		
												Silver, Dissolved	UG/L	01075		
												Sodium, Dissolved	MG/L	00930		
												Sulfate, Dissolved (as SO_4)	MG/L	00946		
x			x			x				x		Total Dissolved Solids (TDS)	PPM	70300	931.	
x			x			x				x		Total Organic Carbon (TOC)	PPM	00680	7.	
												Total Organic Halogen (TOX)	UG/L	70353		
												Toxaphene	UG/L	39400		
												Turbidity	NTU	00076		
												Zinc, Dissolved	UG/L	01090		
												2, 4–D, Total	UG/L	39370		
												2, 4, 5–TP, Total	UG/L	39045		
x			x			x				x		Petroleum Hydrocarbons	PPM	45501		

VALUE CODING RULES AND REMARK CODES ON REVERSE

DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.:

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
R	NJ 0023540	29-20667-7	90 05 07	77166	
1	2 8	9 16	17 22	23 27	28

77648

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 01 90 (MO. YR.) TO 12 90 (MO. YR.)

Owners Well No. C-29-A

SUBMIT WITH SIGNED T-VWX-014

(C-14-3)

SAMPLING MONTHS

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
	x			x			x			x		Elevation of top of well casing with cap off (as specified in well completion report)	feet MSL: to nearest .01		108.23	
	x			x			x			x		Elevation of original ground level (as specified in well completion report)	feet MSL: to nearest .01		104.90	
	x			x			x			x		Depth to water table from top of casing prior to sampling with cap off	feet: to nearest .01	82546	10.83	
	x			x			x			x		Depth to water table from original ground level prior to sampling	feet: to nearest .01	72019	7.33	
												Arsenic, Dissolved	UG/L as As	01000		
												Barium, Dissolved	UG/L as Ba	01005		
												Biochemical Oxygen Demand - 5 Day	MG/L	00310		
												Cadmium, Dissolved	UG/L as Cd	01025		
												Chloride, Dissolved	UG/L as Cl	82295		
												Chromium, Dissolved	UG/L as Cr	01030		
												Chromium, Dissolved, Hexavalent	UG/L as Cr	01220		
												Chemical Oxygen Demand (COD), Dissolved	MG/L	00341		
												Coliform Group	N/100 ML	74056		
												Color	Pt - Co	00080		
												Copper, Dissolved	UG/L as Cu	01040		
												Cyanide, Total	MG/L as CN	00720		
												Endrin, Total	UG/L	39390		
												Fluoride, Dissolved	MG/L as F	00950		
												Gross Alpha, Dissolved	Pc/L	01503		
												Gross Beta, Dissolved	Pc/L	03503		
												Hardness, Total as $CaCO_3$	MG/L	00900		
												Iron, Dissolved	UG/L as Fe	01046		
	x						x					Lead, Dissolved	UG/L as Pb	01049		
												Lindane, Total	UG/L	39782		
												Manganese, Dissolved	UG/L	01056		
												Mercury, Dissolved	UG/L	71890		

VALUE CODING RULES AND REMARK CODES ON REVERSE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
WATER QUALITY MANAGEMENT ELEMENT

GROUND WATER ANALYSIS – MONITORING WELL REPORT

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

FACILITY NAME: Naval Weapons Station Earle | SW ID NO.

LAB NAME: QC Inc.

	NJPDES NO.	WELL PERMIT NO.	SAMPLE DATE YR. MO. DAY	NJ LAB CERT. NO.	WQM USE
S	NJ 0023540	29-20667-7	900507	77166	

77648

THE SCHEDULE INDICATED BELOW IS TO BE OBSERVED FROM 0190 (MO. YR.) TO 1290 (MO. YR.)

Owner's Well No. C-29-A

(C-14-3)

SUBMIT WITH SIGNED T-VWX-014

Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	ANALYSIS	UNITS	PARAMETER	VALUE	REMARKS
												Methoxychlor, Total	UG/L	39460		
												Methylene Blue Active Substances	MG/L	38260		
												Nitrogen, Ammonia, Dissolved $NH_3 + NH_4$ as N	MG/L as N	00608		
												Nitrogen, Nitrate Dissolved	MG/L as N	00618		
												Odor	T.O.N.	00085		
x			x			x				x		pH	Standard Units	00400	4.50	
												Phenols, Total Recoverable	UG/L	32730		
												Radium 226, Dissolved	Pc/L	09503		
												Radium 228, Dissolved	Pc/L	81366		
												Selenium, Dissolved	UG/L	01145		
												Silver, Dissolved	UG/L	01076		
												Sodium, Dissolved	MG/L	00930		
												Sulfate, Dissolved (as SO_4)	MG/L	00946		
x			x			x				x		Total Dissolved Solids (TDS)	PPM	70300	220.	
x			x			x				x		Total Organic Carbon (TOC)	PPM	00680	1.	
												Total Organic Halogen (TOX)	UG/L	70353		
												Toxaphene	UG/L	39400		
												Turbidity	NTU	00076		
												Zinc, Dissolved	UG/L	01090		
												2, 4–D, Total	UG/L	39370		
												2, 4, 5–TP, Total	UG/L	39045		
x			x			x				x		Petroleum Hydrocarbons	PPM	45501		

VALUE CODING RULES AND REMARK CODES ON REVERSE