56781

M-K FERGUSON
WSSRAP LIBRARY
FILE NO. HG-48

QUARTERLY REPORT

ST. CHARLES COUNTY WELL FIELD

MONITORING PROJECT

GRANT NO. DE-FG05-89OR21864

Prepared by: Stanley Remington
July, August and September, 1995

MONTHLY REPORT

JULY 1995

BY

Stanley M. Remington

Consulting Hydrologist

I. CHEMICAL ANALYSES

One composite well sample was taken on June 15, 1995. The results of the analyses are appended. All the results are within historical range and are well below the NPDES limits. The well field is still flooded and so that was the reason no individual well was sampled. Again on July 28, 1995 the well field was still flooded, so I again sampled the well water composite. These results are not yet in. Enclosed are the effluent data summary sheets for the Quarterly Site and Quarry Water Treatment Plant Effluent Data Summary - Second Quarter 1995. These are for nine batches of site treatment water and six from the quarry.

II. REPORT

The report, "Quarterly Environmental Data Summary for the Second Quarter 1995" was received from the Department of Energy. The report informs us that "All data received during the second quarter were within a reasonable range of variability with exception of about 8 occasions. Above normal occurrences are cited for both NPDES and groundwater data. There were none for springs, air monitoring or surface water." The Department of Energy discussed a brief summary of the above normal data and then attached tables presenting all of the data for the quarter. The report

is available at the Department of Energy at Weldon Spring, at the County's Executive Office or from me.

III. CONFERENCE

The annual Missouri Waste Control Coalition was attended by me July 16 - 18, 1995. The theme of this year's conference was "The Year of the Presidents." Several good lectures were presented on both solid and liquid waste disposal systems, and many included an upgrading of procedures to minimize contaminations of groundwater. I found the conference to be very beneficial. This was the 23rd consecutive conference.

IV. FUTURE PLANS

Hopefully the flood waters now covering the well field will recede sufficiently to sample one of the pumping wells. If so, I will sample PW-6 or PW-9 near the end of August. If not, I may try to sample them by boat.

V. MISCELLANEOUS

Appended is the Monthly Water Usage Report form the St. Charles Water Treatment Plant.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.
875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

July 18, 1995

Stanley M. Remington
919 Broadmoor Lane
St. Charles, MO 63301

RE: ATAS #13317.01
Weldon Spring

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on June 15, 1995.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeff Carr

Jeffrey A. Carr
Project Manager

Enclosures

JAC/dms

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1331701R(229)

DATE : 07-18-95

SAMPLE MATRIX : WATER
ATAS # : 13317.01
DATE SUBMITTED: 06-15-95
DATE ANALYZED : 06-20-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : W.S. COMPOSITE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
o-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

ND NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1331701R(229)
DATE : 07-18-95

SAMPLE MATRIX : WATER
ATAS # : METHOD BLANK
DATE SUBMITTED: 06-15-95
DATE ANALYZED : 06-19-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
o-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

ND NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1331701R(229)

DATE : 07-18-95

SAMPLE MATRIX : WATER
ATAS # : LABORATORY CONTROL SPIKE
DATE SUBMITTED: 06-15-95
DATE ANALYZED : 06-19-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : LABORATORY CONTROL SAMPLE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

COMPOUND	LCS ADDED(ug/L)	AMT. FOUND SMPL.(ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
HMX	1600	ND	1510	94 %
RDX	1300	ND	1270	98 %
1,3,5-TNB	900	ND	824	92 %
TETRYL	1650	ND	1380	84 %
1,3-DNB	475	ND	448	94 %
TNT	750	ND	761	101 %
NITROBENZENE	850	ND	800	94 %
2,6 DNT	1150	ND	1090	95 %
2,4 DNT	700	ND	663	95 %
o-NITROTOLUENE	1450	ND	1430	99 %
p-NITROTOLUENE	1000	ND	957	96 %
m-NITROTOLUENE	950	ND	935	98 %

COMPOUND	LCS ADDED(ug/L)	AMT. FOUND SMPL.(ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
HMX	1600	ND	1540	96 %
RDX	1300	ND	1310	101 %
1,3,5-TNB	900	ND	848	94 %
TETRYL	1650	ND	1350	82 %
1,3-DNB	475	ND	476	100 %
TNT	750	ND	794	106 %
NITROBENZENE	850	ND	837	98 %
2,6 DNT	1150	ND	1120	97 %
2,4 DNT	700	ND	682	97 %
o-NITROTOLUENE	1450	ND	1480	102 %
p-NITROTOLUENE	1000	ND	1010	101 %
m-NITROTOLUENE	950	ND	989	104 %

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1331701R(229)

DATE : 07-18-95

SAMPLE MATRIX : WATER
ATAS EPISODE : #13317
DATE SUBMITTED: 06-15-95
PROJECT : WELDON SRPING

CLIENT ID	ATAS ID	UNITS	RADIONUCLIDE	RESULT
W.S. COMPOSITE	13317.01	pCi/L	GROSS ALPHA	4 +/- 3*
W.S. COMPOSITE	13317.01	pCi/L	GROSS BETA	7 +/- 4*
W.S. COMPOSITE	13317.01	mg/L	TOTAL URANIUM	<0.005

* VARIABILITY OF THE RADIOACTIVE DISINTEGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.96σ.
pCi/L= PICOCURIES PER LITER
= PARTS PER MILLION(PPM)

ATAS

AMERICAN TECHNICAL & ANALYTICAL SERVICES, Inc.

875 Fee Fee Road • Maryland Heights, MO 63043-3211 • Office (314) 434-4570 • FAX (314) 434-0080

PAGE __ OF ___

CHAIN OF CUSTODY RECORD

ATAS Client Name: STAN REMINGTON

Project Name:

Project #:

Form Completed By: STAN

PO #:

Sample ID	Sample Date	Sample Time	Sample Matrix	Grab	Comp	No. of Containers	TOTAL U	GROSS α	GROSS β	NITROS	TSS					Remarks	Lab Use Only Location/Temp
U.S. COMPOSITE	6/15/95	0845			X		X	X	X	X							AL-BA 15°C
TREAT. PLANT	6/14/95	1400									X						

Preservative: Ice Chemical (see below)

Lab Use Only — Initials: LM — Date: 6-15-95

Relinquished by:	Received by:	Relinquished by:	Received by:
Signature: STAN REMINGTON	Signature: L. MASSENBERG	Signature:	Signature:
Printed Name: S.C. COUNTY	Printed Name: ATAS	Printed Name:	Printed Name:
Firm: 6/15/95 0955	Firm: 6/15/95 0955	Firm:	Firm:
Date/Time	Date/Time	Date/Time	Date/Time

Turnaround Requirements

___ 1 to 2 working days

___ 3 working days

___ 5 working days

___ 10 working days

___ 15 working days

Preservative codes

A - none

B - HNO_3

C - H_2SO_4

D - NaOH

E - HCl

SEND RESULTS TO (Name & Company) : _____

Original to ATAS/Copy to Client

SUMMARY OF SWTP (BATCH 055) ANALYTICAL RESULTS

5/9/95 1000

From all parties receiving samples on 3/27/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<20 mg/l		NA	NA	NA
TSS	50 / 30	<12 mg/l		NA	NA	NA
ARSENIC	0.1	0.0022 mg/l	<0.0005 mg/l	NA	NA	<0.001 mg/l
CHROMIUM	0.1	<0.003 mg/l		NA	NA	<0.0004 mg/l
LEAD	0.1	<0.002 mg/l		NA	NA	<0.001 mg/l
MANGANESE	0.1	0.0016 mg/l	<0.020 mg/l	NA	NA	0.00150 mg/l
MERCURY	0.004	0.0002 mg/l		NA	NA	<0.0001 mg/l
SELENIUM	0.02	<0.003 mg/l		NA	NA	0.00168 mg/l
CYANIDE, AMENABLE	0.0075	<0.005 mg/l		NA	NA	<0.0009 mg/l
2,4-DNT	0.22 ug/l	<0.20 ug/l	<0.02 ug/l	NA	NA	
FLUORIDE	4.0	1.8 mg/l		NA	NA	
NITRATE + NITRITE AS N	20	<0.1 mg/l	0.08 mg/l	NA	NA	
SULFATE	500	250 mg/l		NA	NA	
CHLORIDE	*	100 mg/l		NA	NA	
GROSS ALPHA	*	2.8 ±2.6 pCi/l	3.7 ±1.8 pCi/l	NA	NA	3.9 ±1.3 pCi/l
GROSS BETA	*	9.8 ±2.3 pCi/l	10.1 ±1.7 pCi/l	NA	NA	7.7 ±1.1 pCi/l
URANIUM, TOTAL	**	0.356 ±0.021 pCi/l	0.6 ±0.2 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	0.9 ±0.9 pCi/l		NA	NA	
RADIUM-228 ***	*	3.1 ±3.2 pCi/l		NA	NA	
THORIUM-230 ***	*	0.0 ±0.6 pCi/l		NA	NA	NA
THORIUM-232 ***	*	0.0 ±0.6 pCi/l		NA	NA	NA
pH (Std. Units)	6 – 9	7.10		NA	NA	
PRIORITY POLLUTANTS****	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	*	<0.80 ug/l	<0.5 ug/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month.

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 056) ANALYTICAL RESULTS

5/9/95 1000

From all parties receiving samples on 4/4/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<20 mg/l		NA	NA	NA
TSS	50 / 30	<12 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l	<0.0005 mg/l	NA	<0.010 mg/l	0.00152 mg/l
CHROMIUM	0.1	<0.003 mg/l		NA	<0.001 mg/l	<0.0004 mg/l
LEAD	0.1	<0.002 mg/l		NA	<0.003 mg/l	<0.001 mg/l
MANGANESE	0.1	<0.002 mg/l	<0.020 mg/l	NA	0.0018 mg/l	0.00097 mg/l
MERCURY	0.004	<0.0002 mg/l		NA	NA	<0.0001 mg/l
SELENIUM	0.02	<0.003 mg/l		NA	NA	<0.001 mg/l
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	<0.0009 mg/l
2,4-DNT	0.22 ug/l	<0.20 ug/l	<0.025 ug/l	NA	<0.020 µg/l	<0.032 µg/l
FLUORIDE	4.0	2.3 mg/l		NA	NA	2.58 mg/l
NITRATE + NITRITE AS N	20	0.10 mg/l	0.12 mg/l	NA	NA	0.39 mg/l
SULFATE	500	250 mg/l		NA	NA	320 mg/l
CHLORIDE	*	79 mg/l		NA	NA	77.2 mg/l
GROSS ALPHA	*	2.0 ±2.3 pCi/l	3.4 ±1.7 pCi/l	NA	8 ±4 pCi/l	2.7 ±1.1 pCi/l
GROSS BETA	*	9.7 ±2.4 pCi/l	8.2 ±1.7 pCi/l	NA	13 ±4 pCi/l	8.1 ±1.1 pCi/l
URANIUM, TOTAL	**	0.495 ±0.028 pCi/l	0.6 ±0.2 pCi/l	NA	<34 pCi/l	<1.0 pCi/l
RADIUM-226 ***	*	***		NA	NA	
RADIUM-228 ***	*	***		NA	NA	
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
pH (Std. Units)	6 – 9	7.21		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.80 ug/l	<0.5 ug/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month.

**** = Effective limit of 1 ug/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 057) ANALYTICAL RESULTS

5/9/95 1000

From all parties receiving samples on 4/17/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	8.00 mg/l		NA	NA	NA
TSS	50 / 30	<2.00 mg/l		NA	NA	NA
ARSENIC	0.1	<0.007 mg/l	0.0028 mg/l	NA	NA	
CHROMIUM	0.1	<0.003 mg/l		NA	NA	
LEAD	0.1	<0.0028 mg/l		NA	NA	
MANGANESE	0.1	<0.002 mg/l	0.0001 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.005 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022ug/l	<0.02 ug/l	NA	NA	<0.032 µg/l
FLUORIDE	4.0	3.56 mg/l		NA	NA	2.02 mg/l
NITRATE + NITRITE AS N	20	0.118 mg/l	0.06 mg/l	NA	NA	0.39 mg/l
SULFATE	500	198 mg/l		NA	NA	269.6 mg/l
CHLORIDE	*	184 mg/l		NA	NA	145 mg/l
GROSS ALPHA	*	<4.45 pCi/l	<1.0 pCi/l	NA	NA	1.7 ±0.9 pCi/l
GROSS BETA	*	10.5 ±2.1 pCi/l	9.3 ±1.7 pCi/l	NA	NA	9.5 ±1.1 pCi/l
URANIUM, TOTAL	**	0.278 ±3.03 pCi/l	0.4 ±0.2 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	***		NA	NA	
RADIUM-228 ***	*	***		NA	NA	
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
pH (Std. Units)	6 – 9			NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.21 mg/l	<0.5 ug/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month. Already sampled this month (S055).

**** = Effective limit of 1 ug/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 058) ANALYTICAL RESULTS

5/9/95 0930

From all parties receiving samples on 4/25/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	10.0 mg/l		NA	NA	NA
TSS	50 / 30	8.0 mg/l		NA	NA	NA
ARSENIC	0.1	0.00756 mg/l	<0.005 mg/l	NA	NA	
CHROMIUM	0.1	<0.003 mg/l		NA	NA	
LEAD	0.1	<0.0028 mg/l		NA	NA	
MANGANESE	0.1	<0.002 mg/l	<0.020 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.0049 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022ug/l	0.03 µg/l	NA	NA	<0.032 µg/l
FLUORIDE	4.0	1.81 mg/l		NA	NA	2.02 mg/l
NITRATE + NITRITE AS N	20	0.195 mg/l	0.29 mg/l	NA	NA	0.58 mg/l
SULFATE	500	174 mg/l		NA	NA	205 mg/l
CHLORIDE	*	150 mg/l		NA	NA	161 mg/l
GROSS ALPHA	*	< 8.76 pCi/l	1.2 ±1.6 pCi/l	NA	NA	2.3 ±1.2 pCi/l
GROSS BETA	*	11.4 ±4.14 pCi/l	9.5 ±1.7 pCi/l	NA	NA	8.9 ±1.1 pCi/l
URANIUM, TOTAL	**	0.401 ±0.004 pCi/l	0.4 ±0.2 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	***		NA	NA	
RADIUM-228 ***	*	***		NA	NA	
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
pH (Std. Units)	6 – 9	7.47		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l	<0.5 µg/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month. Already sampled this month (S055).

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 059) ANALYTICAL RESULTS

5/10/95 0730

From all parties receiving samples on 5/4/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	6.00 mg/l		NA	NA	NA
TSS	50 / 30	<2.00 mg/l		NA	NA	NA
ARSENIC	0.1	<0.007 mg/l		NA	NA	
CHROMIUM	0.1	<0.006 mg/l		NA	NA	
LEAD	0.1	<0.0028 mg/l		NA	NA	
MANGANESE	0.1	<0.007 mg/l		NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.0049 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 µg/l		NA	NA	<0.032 µg/l
FLUORIDE	4.0	2.94 mg/l		NA	NA	2.94 mg/l
NITRATE + NITRITE AS N	20	0.431 mg/l		NA	NA	0.79 mg/l
SULFATE	500	204 mg/l		NA	NA	225 mg/l
CHLORIDE	*	140 mg/l		NA	NA	142.8 mg/l
GROSS ALPHA	*	<6.39 pCi/l		NA	NA	1.5 ± 1.0 pCi/l
GROSS BETA	*	5.95 ± 3.76 pCi/l		NA	NA	8.0 ± 1.0 pCi/l
URANIUM, TOTAL	**	0.152 ± 0.001 pCi/l		NA	NA	<1.0 pCi/l
RADIUM-226	*	<0.913 pCi/l		NA	NA	
RADIUM-228	*	<1.40 pCi/l		NA	NA	
THORIUM-230	*	<0.269 pCi/l		NA	NA	NA
THORIUM-232	*	<0.0676 pCi/l		NA	NA	NA
pH (Std. Units)	6 – 9	6.66		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l		NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month.

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 060) ANALYTICAL RESULTS

5/19/95 1010

From all parties receiving samples on 5/15/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	25 mg/l	7.0 mg/l	NA	NA	NA
TSS	50 / 30	5.0 mg/l	9.02 mg/l	NA	NA	NA
ARSENIC	0.1	<0.007 mg/l	0.0019 mg/l	NA	<0.010 mg/l	
CHROMIUM	0.1	<0.008 mg/l		NA	<0.001 mg/l	
LEAD	0.1	<0.0028 mg/l		NA	<0.003 mg/l	
MANGANESE	0.1	<0.007 mg/l	0.00055 mg/l	NA	0.001 mg/l	
MERCURY	0.004	<0.0001 mg/l	<0.0005 mg/l	NA	0.00019 mg/l	
SELENIUM	0.02	0.0062 mg/l		NA	<0.005 mg/l	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l	<0.005 mg/l	NA	NA	
2,4-DNT	0.22 ug/l	<0.022 ug/l	<0.03 µg/l	NA	0.0222 µg/l	<0.032 µg/l
FLUORIDE	4.0	2.11 mg/l		NA	NA	2.82 mg/l
NITRATE + NITRITE AS N	20	0.747 mg/l	0.71 mg/l	NA	NA	0.94 mg/l
SULFATE	500	254 mg/l		NA	NA	299 mg/l
CHLORIDE	*	114 mg/l		NA	NA	112 mg/l
GROSS ALPHA	*	−0.600 ± 1.07 pCi/l	3.4 ±1.6 pCi/l	NA	1 ±3 pCi/l	3.5 ± 1.4 pCi/l
GROSS BETA	*	5.05 ± 0.852 pCi/l	10.0 ±1.7 pCi/l	NA	13 ±4 pCi/l	7.8 ± 1.0 pCi/l
URANIUM, TOTAL	**	0.274 ± 0.0032 pCi/l	0.2 ±0.1 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	***	0.7 ±0.2 pCi/l	NA	NA	
RADIUM-228 ***	*	***	0.9 ±0.4 pCi/l	NA	NA	
THORIUM-230 ***	*	***	<0.5 pCi/l	NA	NA	NA
THORIUM-232 ***	*	***	<0.5 pCi/l	NA	NA	NA
pH (Std. Units)	6 – 9	6.30		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month. Already sampled this month (S059).

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 061) ANALYTICAL RESULTS

5/25/95 1330

From all parties receiving samples on 5/22/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5.0 mg/l		NA	NA	NA
TSS	50 / 30	3.0 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l	0.0021 mg/l	NA	NA	
CHROMIUM	0.1	<0.008 mg/l		NA	NA	
LEAD	0.1	<0.002 mg/l		NA	NA	
MANGANESE	0.1	<0.007 mg/l	<0.020 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.004 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 mg/l	<0.03 µg/l	NA	NA	<0.032 µg/l
FLUORIDE	4.0	2.72 mg/l		NA	NA	3.0 mg/l
NITRATE + NITRITE AS N	20	0.402 mg/l	0.03 mg/l	NA	NA	0.814 mg/l
SULFATE	500	213 mg/l		NA	NA	276.4 mg/l
CHLORIDE	*	142 mg/l		NA	NA	144 mg/l
GROSS ALPHA	*	<2.37 pCi/l	3.4 ±1.9 pCi/l	NA	NA	2.1 ±1.1 pCi/l
GROSS BETA	*	<2.26 pCi/l	9.7 ±1.8 pCi/l	NA	NA	8.7 ±1.0 pCi/l
URANIUM, TOTAL	**	0.16 ±0.02 pCi/l	0.2 ±0.1 mg/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	***		NA	NA	
RADIUM-228 ***	*	***		NA	NA	
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
pH (Std. Units)	6 - 9	8.05		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month. Already sampled this month (S059).

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 062) ANALYTICAL RESULTS

6/7/95 1210

From all parties receiving samples on 5/31/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	15 mg/l		NA	NA	NA
TSS	50 / 30	<2.00 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l	0.002 mg/l	NA	NA	
CHROMIUM	0.1	<0.006 mg/l		NA	NA	
LEAD	0.1	<0.002 mg/l		NA	NA	
MANGANESE	0.1	0.00132 mg/l	<0.020 mg/l	NA	NA	
MERCURY	0.004	<0.00010 mg/l		NA	NA	
SELENIUM	0.02	<0.004 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 µg/l	<0.03 µg/l	NA	NA	
FLUORIDE	4.0	3.17 mg/l		NA	NA	
NITRATE + NITRITE AS N	20	0.271 mg/l	0.20 mg/l	NA	NA	
SULFATE	500	290 mg/l		NA	NA	
CHLORIDE	*	200 mg/l		NA	NA	
GROSS ALPHA	*	2.53 ± 1.05 pCi/l	2.6 ±1.9 pCi/l	NA	NA	3.5 ± 1.4 pCi/l
GROSS BETA	*	6.56 ± 1.06 pCi/l	10.1 ±1.8 pCi/l	NA	NA	10.1 ± 1.0 pCi/l
URANIUM, TOTAL	**	0.269 ± 0.003 pCi/l	0.4 ±0.2 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	0.642 ±0.135 pCi/l		NA	NA	
RADIUM-228 ***	*	1.62 ±0.661 pCi/l		NA	NA	
THORIUM-230 ***	*	1.17 ±0.32 pCi/l		NA	NA	NA
THORIUM-232 ***	*	0.123 ±0.112 pCi/l		NA	NA	NA
pH (Std. Units)	6 – 9	7.21		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month.

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF SWTP (BATCH 063) ANALYTICAL RESULTS

6/28/95 0815

From all parties receiving samples on 6/19/95

PARAMETER	NPDES LIMITS (mg/l) Unless noted	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	8.0 mg/l		NA	NA	NA
TSS	50 / 30	<2.00 mg/l		NA	NA	NA
ARSENIC	0.1	0.0024 mg/l	<0.005 mg/l	NA	NA	
CHROMIUM	0.1	<0.009 mg/l		NA	NA	
LEAD	0.1	<0.001 mg/l		NA	NA	
MANGANESE	0.1	<0.005 mg/l	<0.002 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	0.0054 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 mg/l	<0.03 µg/l	NA	NA	
FLUORIDE	4.0	1.94 mg/l		NA	NA	
NITRATE + NITRITE AS N	20	0.563 mg/l	0.43 mg/l	NA	NA	
SULFATE	500	320 mg/l		NA	NA	
CHLORIDE	*	238 mg/l		NA	NA	
GROSS ALPHA	*	2.1 ± 5.4 pCi/l	6.5 ±2.5 pCi/l	NA	NA	4.2 ± 1.5 pCi/l
GROSS BETA	*	12 ± 6 pCi/l	11.8 ±1.9 pCi/l	NA	NA	9.7 ± 1.2 pCi/l
URANIUM, TOTAL	**	0.5 pCi/l	0.2 ±0.2 pCi/l	NA	NA	<1.0 pCi/l
RADIUM-226 ***	*	***		NA	NA	
RADIUM-228 ***	*	***		NA	NA	
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
pH (Std. Units)	6 – 9	6.80		NA	NA	
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA		NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	****	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. METALS/OTHERS	*	NA				

* = Monitoring Parameter

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Monitoring parameter once per month. Already sampled this month (S062).

**** = Effective limit of 1 µg/l

NA = Not Analyzed

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 031) ANALYTICAL RESULTS

5/10/95 0900

FROM ALL AGENCIES RECEIVING SAMPLES ON 3/28/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<20 mg/l		NA	NA	NA
TSS	50 / 30	<12 mg/l		NA	NA	NA
ARSENIC	0.1	<0.002 mg/l	<0.005 mg/l	NA	NA	<0.001 mg/l
CHROMIUM	0.1	<0.003 mg/l		NA	NA	<0.0004 mg/l
COPPER ***	1	<0.003 mg/l		NA	NA	<0.001 mg/l
LEAD	0.1	<0.002 mg/l		NA	NA	0.00449 mg/l
MANGANESE	0.1	0.0044 mg/l	<0.020 mg/l	NA	NA	<0.0001 mg/l
MERCURY	0.004	<0.0002 mg/l		NA	NA	0.00156 mg/l
SELENIUM	0.02	<0.003 mg/l		NA	NA	<0.0009 mg/l
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.20 ug/l	<0.02 ug/l	NA	NA	<0.031 µg/l
FLUORIDE	4.0	0.19 mg/l		NA	NA	2.40 mg/l
NITRATE+NITRITE AS N	*	0.15 mg/l	0.16 mg/l	NA	NA	0.41 mg/l
SULFATE	500	250 mg/l		NA	NA	266.9 mg/l
CHLORIDE	*	100 mg/l		NA	NA	184.3 mg/l
GROSS ALPHA	*	−0.6 ±1.9 pCi/l	3.2 ±1.8 pCi/l	NA	NA	2.4 ±1.1 pCi/l
GROSS BETA	*	9.4 ±3.8 pCi/l	8.2 ±1.7 pCi/l	NA	NA	6.7±1.1 pCi/l
URANIUM, TOTAL	**	2.21 ±0.13 pCi/l	0.5 ±0.2 pCi/l	NA	NA	1.3 ±0.3 pCi/l
RADIUM-226 ***	*	0.0 ±0.6 pCi/l		NA	NA	NA
RADIUM-228 ***	*	8.0 ±4.1 pCi/l		NA	NA	NA
THORIUM-230 ***	*	0.0 ±0.5 pCi/l		NA	NA	NA
THORIUM-232 ***	*	0.0 ±0.6 pCi/l		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	N.A.	NA	NA	NA	NA
2. VOA	*	N.A.		NA	NA	NA
3. PCBs	*	<0.80 ug/l	<0.5 ug/l	NA	NA	NA
4. PESTICIDES	*	N.A.			NA	
5. METALS / OTHERS	*	N.A.			NA	
pH	6.0 – 9.0 S.U.	7.47	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month.

NA = Not analyzed by agency.

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 032) ANALYTICAL RESULTS

5/9/95 1345

FROM ALL AGENCIES RECEIVING SAMPLES ON 4/24/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5 mg/l		NA	NA	NA
TSS	50 / 30	<5 mg/l		NA	NA	NA
ARSENIC	0.1	<0.0009 mg/l	<0.005 mg/l	NA	NA	
CHROMIUM	0.1	<0.0021 mg/l		NA	NA	
COPPER ***	1	<0.0016 mg/l		NA	NA	
LEAD	0.1	<0.0006 mg/l		NA	NA	
MANGANESE	0.1	0.0201 mg/l	<0.020 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	0.0015 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.005 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.195 ug/l	<0.03 ug/l	NA	NA	<0.032 µg/l
FLUORIDE	4.0	0.10 mg/l		NA	NA	<0.02 mg/l
NITRATE+NITRITE AS N	*	<0.020 mg/l	<0.05 mg/l	NA	NA	0.34 mg/l
SULFATE	500	250 mg/l		NA	NA	268.3 mg/l
CHLORIDE	*	214 mg/l		NA	NA	183.9 mg/l
GROSS ALPHA	*	<4.07 pCi/l	1.1 ±1.6 pCi/l	NA	NA	2.6 ± 1.2 pCi/l
GROSS BETA	*	<4.44 pCi/l	8.0 ±1.7 pCi/l	NA	NA	6.6 ± 1.0 pCi/l
URANIUM, TOTAL	**	0.927 ± 0.010 pCi/l	1.1 ±0.4 pCi/l	NA	NA	1.3 ± 0.3 pCi/l
RADIUM-226 ***	*	<0.756 pCi/l		NA	NA	NA
RADIUM-228 ***	*	<1.22 pCi/l		NA	NA	NA
THORIUM-230 ***	*	0.32 ±0.228 pCi/l		NA	NA	NA
THORIUM-232 ***	*	<0.194 pCi/l		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	<25 µg/l	NA	NA	NA	NA
2. VOA	*	<10 µg/l		NA	NA	NA
3. PCBs	*	<1.00 µg/l	<0.5 ug/l	NA	NA	NA
4. PESTICIDES	*	<5.00 µg/l			NA	
5. METALS / OTHERS	*	****			NA	
pH	6.0 – 9.0 S.U.	6.71	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month.

****Phenol-total(<5.00 µg/l), Ag(<0.0018 mg/l), Ba(0.0227 mg/l), Be(<0.00035 mg/l), Cd(<0.0002 mg/l),Fe(0.0534 mg/l), Ni(0.0052 mg/l) Sb(<0.0132 mg/l), Tl(<0.017 mg/l), Zn(0.0095 mg/l), CN-Total(<0.005 mg/l)

NA = Not analyzed by agency.

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 033) ANALYTICAL RESULTS

5/17/95 1055

FROM ALL AGENCIES RECEIVING SAMPLES ON 5/10/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5 mg/l		NA	NA	NA
TSS	50 / 30	<2 mg/l		NA	NA	NA
ARSENIC	0.1	<0.007 mg/l	0.0003 mg/l	NA	NA	
CHROMIUM	0.1	<0.008 mg/l		NA	NA	
COPPER ***	1	***		NA	NA	
LEAD	0.1	<0.00284 mg/l		NA	NA	
MANGANESE	0.1	0.008 mg/l	0.00792 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	0.0049 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 ug/l	<0.3 µg/l	NA	NA	<0.032 µg/l
FLUORIDE	4.0	<0.15 mg/l		NA	NA	<0.02 mg/l
NITRATE+NITRITE AS N	*	0.197 mg/l	0.05 mg/l	NA	NA	0.42 mg/l
SULFATE	500	251 mg/l		NA	NA	268.8 mg/l
CHLORIDE	*	201 mg/l		NA	NA	200.8 mg/l
GROSS ALPHA	*	3.31 ± 1.74 pCi/l	3.0 ±1.8 pCi/l	NA	NA	4.5 ± 1.6 pCi/l
GROSS BETA	*	12.0 ± 1.32 pCi/l	11.7 ±1.8 pCi/l	NA	NA	11.6 ± 1.1 pCi/l
URANIUM, TOTAL	**	2.43 ± 0.028 pCi/l	1.2 ±0.3 pCi/l	NA	NA	1.6 ± 0.3 pCi/l
RADIUM-226 ***	*	***		NA	NA	NA
RADIUM-228 ***	*	***		NA	NA	NA
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA	NA	NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	*	<0.50 µg/l	<0.5 µg/l	NA	NA	NA
4. PESTICIDES	*	NA			NA	
5. METALS / OTHERS	*	NA			NA	
pH	6.0 – 9.0 S.U.	7.1	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month. Sampled from batch Q032 for May 1995.

NA = Not analyzed.

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 034) ANALYTICAL RESULTS

5/30/95 0730

FROM ALL AGENCIES RECEIVING SAMPLES ON 5/23/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5 mg/l		NA	NA	NA
TSS	50 / 30	4.0 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l	0.0001 mg/l	NA	<0.010 mg/l	
CHROMIUM	0.1	<0.008 mg/l		NA	<0.001 mg/l	
COPPER ***	1	***		NA	NA	
LEAD	0.1	<0.002 mg/l		NA	<0.003 mg/l	
MANGANESE	0.1	0.0106 mg/l	<0.020 mg/l	NA	0.0113 mg/l	
MERCURY	0.004	<0.0001 mg/l		NA	<0.00015 mg/l	
SELENIUM	0.02	<0.004 mg/l		NA	<0.005 mg/l	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 ug/l	<0.03 µg/l	NA	<0.022 µg/l	<0.032 µg/l
FLUORIDE	4.0	<0.15 mg/l		NA	NA	1.08 mg/l
NITRATE+NITRITE AS N	*	<0.01 mg/l	0.05 mg/l	NA	NA	0.324 mg/l
SULFATE	500	239 mg/l		NA	NA	257.9 mg/l
CHLORIDE	*	166 mg/l		NA	NA	171.8 mg/l
GROSS ALPHA	*	2.80 ± 1.51 pCi/l	2.1 ±1.9 pCi/l	NA	3 ±2 pCi/l	2.4 ± 1.2 pCi/l
GROSS BETA	*	5.61 ± 1.5 pCi/l	6.4 ±1.7 pCi/l	NA	11 ±3 pCi/l	5.6 ± 1.1 pCi/l
URANIUM, TOTAL	**	1.63 ± 0.031 pCi/l	1.1 ±0.3 pCi/l	NA	9.5 pCi/l	1.9 ± 0.3 pCi/l
RADIUM-226 ***	*	***		NA	NA	NA
RADIUM-228 ***	*	***		NA	NA	NA
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA	NA	NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	*	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. PESTICIDES	*	NA			NA	
5. METALS / OTHERS	*	NA			NA	
pH	6.0 – 9.0 S.U.	6.96	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month. Sampled from batch Q032 for May 1995. Radon, Polonium and Actinium also sampled, results due May 31, 1995.

NA = Not analyzed.

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 035) ANALYTICAL RESULTS

6/08/95 1045

FROM ALL AGENCIES RECEIVING SAMPLES ON 6/2/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5 mg/l		NA	NA	NA
TSS	50 / 30	5.0 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l	<0.005 mg/l	NA	NA	
CHROMIUM	0.1	<0.006 mg/l		NA	NA	
COPPER ***	1	0.00445 mg/l		NA	NA	
LEAD	0.1	<0.002 mg/l		NA	NA	
MANGANESE	0.1	0.00531 mg/l	<0.020 mg/l	NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.004 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 ug/l	<0.03 µg/l	NA	NA	
FLUORIDE	4.0	<0.30 mg/l		NA	NA	
NITRATE+NITRITE AS N	*	0.326 mg/l	0.08 mg/l	NA	NA	
SULFATE	500	221 mg/l		NA	NA	
CHLORIDE	*	144 mg/l		NA	NA	
GROSS ALPHA	*	0.0 ± 3.2 pCi/l	2.1 ±1.0 pCi/l	NA	NA	1.1 ±1.0 pCi/l
GROSS BETA	*	7.4 ± 4.4 pCi/l	6.1 ±1.5 pCi/l	NA	NA	1.0 pCi/l
URANIUM, TOTAL	**	1.2 pCi/l	1.1 ±0.3 pCi/l	NA	NA	1.4 ±0.3 pCi/l
RADIUM-226 ***	*	DUE		NA	NA	NA
RADIUM-228 ***	*	DUE		NA	NA	NA
THORIUM-230 ***	*	DUE		NA	NA	NA
THORIUM-232 ***	*	DUE		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA	NA	NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	*	<0.50 µg/l	<0.50 µg/l	NA	NA	NA
4. PESTICIDES	*	NA			NA	
5. METALS / OTHERS	*	NA			NA	
pH	6.0 – 9.0 S.U.	7.41	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month.

NA = Not analyzed.

= Data received after batch was discharged

SUMMARY OF QWTP (BATCH 036) ANALYTICAL RESULTS

6/21/95 1440

FROM ALL AGENCIES RECEIVING SAMPLES ON 6/15/95

PARAMETER	NPDES LIMITS (mg/l)	PMC DATA RESULTS	MoDNR DATA RESULTS	EPA DATA RESULTS	ST. CHARLES COUNTY DATA RESULTS	ST. LOUIS COUNTY H & W DATA RESULTS
COD	90 / 60	<5 mg/l		NA	NA	NA
TSS	50 / 30	2.7 mg/l		NA	NA	NA
ARSENIC	0.1	<0.003 mg/l		NA	NA	
CHROMIUM	0.1	<0.006 mg/l		NA	NA	
COPPER ***	1	***		NA	NA	
LEAD	0.1	<0.002 mg/l		NA	NA	
MANGANESE	0.1	0.0269 mg/l		NA	NA	
MERCURY	0.004	<0.0001 mg/l		NA	NA	
SELENIUM	0.02	<0.004 mg/l		NA	NA	
CYANIDE, AMENABLE	0.0075	<0.004 mg/l		NA	NA	
2,4-DNT	0.22 ug/l	<0.022 ug/l		NA	NA	
FLUORIDE	4.0	<0.49 mg/l		NA	NA	
NITRATE+NITRITE AS N	*	<0.05 mg/l		NA	NA	
SULFATE	500	238 mg/l		NA	NA	
CHLORIDE	*	167 mg/l		NA	NA	
GROSS ALPHA	*	3.9 ± 3.6 pCi/l	2.8 ± 1.7 pCi/l	NA	NA	4.1 ± 1.6 pCi/l
GROSS BETA	*	6.0 ± 3.0 pCi/l	6.4 ± 1.6 pCi/l	NA	NA	7.2 ± 1.0 pCi/l
URANIUM, TOTAL	**	1.8 pCi/l	1.5 ± 0.3 pCi/l	NA	NA	1.9 ± 0.3 pCi/l
RADIUM-226 ***	*	***		NA	NA	NA
RADIUM-228 ***	*	***		NA	NA	NA
THORIUM-230 ***	*	***		NA	NA	NA
THORIUM-232 ***	*	***		NA	NA	NA
PRIORITY POLLUTANTS	(SEE BELOW)					
1. SEMI-VOA	*	NA	NA	NA	NA	NA
2. VOA	*	NA		NA	NA	NA
3. PCBs	*	<0.50 µg/l		NA	NA	NA
4. PESTICIDES	*	NA			NA	
5. METALS / OTHERS	*	NA			NA	
pH	6.0 – 9.0 S.U.	6.51	NA	NA	NA	NA

* =MONITORING ONLY, NO PERMIT DISCHARGE LIMITS

** = Design Value of 30 pCi / l; Not to Exceed 100 pCi / l

*** = Parameter required once/month. Sampled from batch Q035 for June 1995.

NA = Not analyzed.

= Data received after batch was discharged

DATE: 07/06/95

ST. CHARLES COUNTY WATER DEPARTMENT

MONTHLY WATER USAGE REPORT

MONTH OF: JUNE

	USAGED	AVG MGD	Y TO D	Y TO D AVG MGD
PLANT PRODUCTION	350157000	11.60	1663150000	9.188
PLANT USE	16128000	0.530	70592000	0.390
DELIVERED TO SYSTEM	334029000	11.10	1582654000	8.743
MISSOURI CITIES WATER	279568000	9.310	1294749000	7.153 **
WATER DISTRICT #2 24" LINE	56468000	1.880	249012000	1.376
WATER DIST. #2 NEW MELLE	7093000	0.240	36515000	0.201
NATIONAL GUARD AREA	1000	0	203000	
TOTAL METER SALES	343130000	11.40	1580477000	8.731
UNMETERED AND UNACCOUNTED	000	0	000	

INVENTORY OF CHEMICALS

	LIME	CHLORINE
PREV. BALANCE	+: 312324	+: 7681
RECEIVED	+: 443160	+: 24000
TOTAL	=: 755484	=: 31681
USED	-: 516223	-: 24000
BALANCE	=: 239261	=: 7681
POUNDS PER 1000 GALLONS	=: 1.47	=: 0.069
PARTS PER MILLION	=: 176	=: 8.17
AVG. POUNDS PER DAY	=: 17207	=: 800
POUNDS USED YEAR TO DATE	=: 214389	=: 105735

** MO. CITIES METERS ARE MANFUNCTIONING SEND IN FOR REPAIRS 6/29/95

DATE: 07/06/95 FOR THE MONTH OF: JUNE

IETER READINGS

ACCOUNT #	METER	TO: 6/29/65	FROM: 5/31/95	USAGED
OURI CITIES BOOSTER STATION				
	ULTRA SONIC #1	+:	-:	=:
	ULTRA SONIC #2	+:	-:	=:
	TOTALIZER	+: 5996950	-: 5718604	=: 278346000

ETERS BEFORE MISSOURI CITIES BOOSTER STATION

		TO: 6/03/95	FROM: 5/03/95	USAGED
04-50-1328350	1. FH ANNEX 4"	+: 1180	-: 1178	=: 2000
4-50-1328500	2. MO STATE SHED	+: 210	-: 202	=: 8000
4-50-1330000	3. DOE LAB LARGE	+: 460	-: 450	=: 10000
	SMALL	+: 13510	-: 13002	=: 508000
04-50-1330401	4. DOE FIRE LINE	+: 18486	-: 18127	=: 359000
4-50-1330701	5. DOE TRAILERS	+: 82	-: 82	=:
4-50-1330100	6. DOE 8" #1 LARGE	+: 6423	-: 6264*4/3/95	=: 159000
	SMALL	+: 6120	-: 6100*4/3/95	=: 20000
4-50-1330200	7. DOE 8" #2 LARGE	+: 2078	-: 2063	=: 15000
	SMALL	+: 2500	-: 2495	=: 5000
04-50-1320200	8. DOE 3"	+: 3820	-: 3799*4/3/95	=: 21000
4-50-1328550	9. FH SCHOOL	+: 130710	-: 12976	=: 95000
			TOTAL	=: 1222000

MISSOURI CITIES TOTAL =: 279568000

R DIST. #2 24" LINE

	TO: 6/30/95	FROM: 6/01/95	USAGED
24" EAST	+: 201747	-: 201747	=:
24" WEST	+: 168314	-: 111846	=: 56468000
BYPASS	+: 2340	-: 2340	=:

WATER DIST. #2 TOTAL =: 56468000

NEW MELLE	+: 280252	-: 273159	=: 7093000

MONTHLY REPORT

AUGUST 1995

BY

Stanley M. Remington

Consulting Hydrologist

I. CHEMICAL ANALYSES

One result from a composite of all of the pumping wells at the Weldon Spring St. Charles County Water Treatment Plant is appended. This is an untreated composite and was taken on July 28, 1995. All of the parameters tested for were within NPDES and historical ranges.

Two results, one from the Quarry site and the other from the Chemical Plant Site at Weldon Spring were received and are appended. The Plant site was taken on August 7, 1995, and the Quarry site was taken on August 18, 1995. All of the chemical parameters were well within NPDES limits and all were within historical backgrounds.

For the first time, since the middle of May, access to the pumping wells at the Weldon Spring well field was available. Consequently I was able to sample well number PW-6 on August 25, 1995. These results have not yet been received.

II. FUTURE PLANS

I will sample well number PW-7, sometime in mid September. I will also sample one batch of treated water from the Chemical Plant Site at Weldon Spring.

III. MISCELLANEOUS

Appended is the St. Charles County Water Department's Monthly Water Usage Report for the month of July 1995.

The Department Of Energy has begun cleaning out the crevices and joints in the sides of the limestone quarry at Weldon Spring. Upon completion of this, all removable material from the quarry site will be gone. No further migration of hazardous wastes towards the St. Charles County Well Field is anticipated. In fact, a reversal of ground water flow back to the quarry is expected.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.
875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

August 14, 1995

Stanley M. Remington
919 Broadmoor Lane
St. Charles, MO 63301

RE: ATAS #13606.01
WELDON SPRING

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on July 28, 1995.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr
Project Manager

Enclosures

JAC/sdp

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1360601R(229)

DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS EPISODE : #13606
DATE SUBMITTED: 07-28-95
PROJECT : WELDON SPRING

CLIENT ID	ATAS ID	UNITS	RADIONUCLIDE	RESULT
COMPOSITE	13606.01	pCi/L	GROSS ALPHA	4 +/- 2
COMPOSITE	13606.01	pCi/L	GROSS BETA	9 +/- 3
COMPOSITE	13606.01	mg/L	TOTAL URANIUM	<0.005

* VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.96σ.
pCi/L= PICOCURIES PER LITER
mg/L = PARTS PER MILLION(PPM)

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1360601EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : 13606.01
DATE SUBMITTED: 07-28-95
DATE ANALYZED : 08-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : COMPOSITE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
o-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1360601EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : METHOD BLANK
DATE SUBMITTED: 07-28-95
DATE ANALYZED : 08-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
o-NITROTOLUENE	12.0	ND
p-NITROTOLUENE	8.0	ND
m-NITROTOLUENE	7.9	ND

ND: NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1360601EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : LABORATORY CONTROL SAMPLE
DATE SUBMITTED: 07-28-95
DATE ANALYZED : 08-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : LABORATORY CONTROL SAMPLE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

COMPOUND	SPIKE ADDED(ug/L)	AMT. FOUND SMPL.(ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
HMX	1600	ND	1700	106 %
RDX	1300	ND	1380	106 %
1,3,5-TNB	900	ND	934	104 %
TETRYL	1650	ND	1830	111 %
1,3-DNB	475	ND	517	109 %
TNT	750	ND	826	110 %
NITROBENZENE	850	ND	901	106 %
2,6 DNT	1150	ND	1200	104 %
2,4 DNT	700	ND	730	104 %
o-NITROTOLUENE	1450	ND	1530	106 %
p-NITROTOLUENE	1000	ND	1080	108 %
m-NITROTOLUENE	950	ND	1010	106 %

ATAS

AMERICAN TECHNICAL & ANALYTICAL SERVICES, Inc.

875 Fee Fee Road • Maryland Heights, MO 63043-3211 • Office (314) 434-4570 • FAX (314) 434-0080

PAGE ___ OF ___

CHAIN OF CUSTODY RECORD

ATAS Client Name: STAN REMINGTON

Project Name: WELDON SPRING

Project #:

Form Completed By:

PO #:

Sample ID	Sample Date	Sample Time	Sample Matrix	Grab	Comp	No. of Containers	Nitros	Total U	Gross α	Gross β	TSS					Remarks ACCU.	Lab Use Only (Initials CA, Date 7-28-95, Location/Temp LBA 17°C)
COMPOSITE	7/28/95	0845					X	X	X	X							13606.01
WELDON SPING TREAT. PLANT	"	"									X						

Relinquished by:	Received by:	Relinquished by:	Received by:
Signature: Stanley P. Remington	Signature: Carlos Allen	Signature:	Signature:
Printed Name: STAN REMINGTON	Printed Name: ATAS	Printed Name:	Printed Name:
Firm: 7/28/95	Firm: 7/28/95 1015	Firm:	Firm:
Date/Time	Date/Time	Date/Time	Date/Time

Turnaround Requirements

___ 1 to 2 working days

___ 3 working days

___ 5 working days

___ 10 working days

___ 15 working days

Preservative codes

A - none

B - HNO_3

C - H_2SO_4

D - NaOH

E - HCl

F - _____

SEND RESULTS TO (Name & Company) : _____

Original to ATAS/Copy to Client

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.
875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

August 14, 1995

Stanley M. Remington
919 Broadmoor Lane
St. Charles, MO 63301

RE: ATAS #13657.01
WSSRAP

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on August 7, 1995.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr
Project Manager

Enclosures

JAC/sdp

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : 13657.01
DATE SUBMITTED: 08-07-95
PROJECT : WSSRAP
SAMPLE ID : MP-ES34-080795-C

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
			INORGANICS		
NITRATE-SPEC.	1.0	mg/L	3.24	08-11-95	SM 418B
			METALS		
ARSENIC	5.0	ug/L	ND	08-10-95	SW 6010
CHROMIUM	1.0	ug/L	ND	08-10-95	SW 6010
LEAD	3.0	ug/L	ND	08-10-95	SW 6010
MANGANESE	1.0	ug/L	2.3	08-10-95	SW 6010
MERCURY	0.15	ug/L	ND	08-09-95	SW 7470
SELENIUM	5.0	ug/L	ND	08-10-95	SW 6010

mg/L = PARTS PER MILLION(PPM)
ug/L = PARTS PER BILLION(PPB)
ND = NOT DETECTED ABOVE REPORTING LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)

DATE : 08-14-95

QA/QC

DESCRIPTION		PARAMETER	RESULTS	
METHOD BLANK	08-10-95	ARSENIC	<5.0	ug/L
METHOD BLANK	08-10-95	CHROMIUM	<1.0	ug/L
METHOD BLANK	08-10-95	LEAD	<3.0	ug/L
METHOD BLANK	08-10-95	MANGANESE	<1.0	ug/L
METHOD BLANK	08-09-95	MERCURY	<0.15	ug/L
METHOD BLANK	08-10-95	SELENIUM	<5.0	ug/L
METHOD BLANK	08-11-95	NITRATE	<1.0	mg/L
BLANK SPIKE	08-10-95	ARSENIC	102 %	RECOVERY
BLANK SPIKE	08-10-95	CHROMIUM	97 %	RECOVERY
BLANK SPIKE	08-10-95	LEAD	97 %	RECOVERY
BLANK SPIKE	08-10-95	MANGANESE	97 %	RECOVERY
BLANK SPIKE	08-09-95	MERCURY	95 %	RECOVERY
BLANK SPIKE	08-10-95	SELENIUM	104 %	RECOVERY
BLANK SPIKE	08-11-95	NITRATE	107 %	RECOVERY

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)

DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS EPISODE : #13657
DATE SUBMITTED: 08-07-95
PROJECT : WSSRAP

CLIENT ID	ATAS ID	UNITS	RADIONUCLIDE	RESULT
MP-ES34-080795-C	13657.01	pCi/L	GROSS ALPHA	4 +/- 4
MP-ES34-080795-C	13657.01	pCi/L	GROSS BETA	16 +/- 6
MP-ES34-080795-C	13657.01	mg/L	URANIUM, TOTAL	<0.005

• VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.96σ.
pCi/L= PICOCURIES PER LITER
mg/L = PARTS PER MILLION(PPM)

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : 13657.01
DATE SUBMITTED: 08-07-95
DATE EXTRACTED: 08-08-95
DATE ANALYZED : 08-08-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : NP-ES34-080795-C

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	REPORTING LIMIT	RESULTS
2,6 DNT	0.012	ND
2,4 DNT	0.024	ND

QA/QC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150)	71 %
TETRACHLORO-M-XYLENE(30-150)	97 %

ND= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : METHOD BLANK
DATE SUBMITTED: 08-07-95
DATE EXTRACTED: 08-08-95
DATE ANALYZED : 08-08-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	REPORTING LIMIT	RESULTS
2,6 DNT	0.010	ND
2,4 DNT	0.020	ND

QA/QC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150)	75 %
TETRACHLORO-M-XYLENE(30-150)	89 %

ND= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1365701EX(230)
DATE : 08-14-95

SAMPLE MATRIX : WATER
ATAS # : LABORATORY CONTROL SAMPLE
DATE SUBMITTED: 08-07-95
DATE EXTRACTED: 08-08-95
DATE ANALYZED : 08-08-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : LABORATORY CONTROL SAMPLE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

COMPOUND	SPIKE ADDED(ug/L)	AMT. FOUND SMPL.(ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
2,6 DNT	0.250	0	0.221	88 %
2,4 DNT	0.250	0	0.224	90 %

	AMT. FOUND SBD (ug/L)	PERCENT RECOVERY	PERCENT DIFFERENCE
2,6 DNT	0.231	92 %	4.4 %
2,4 DNT	0.240	96 %	6.5 %

ENVIRONMENTAL SAMPLE CHAIN-OF-CUSTODY / AUTHORIZATION FORM

WELDON SPRING SITE REMEDIAL ACTION PROJECT (WSSRAP)

7295 HIGHWAY 94 SOUTH, ST. CHARLES, MO 63304

TELEPHONE (314) 441-8086 TELEX (314) 447-0803

Validation Documentation ☐

ES&H 4.1.2.1, Rev.6, Effective 11/91

WSSRAP Contact:

Phone Number:

Request Number:

Lab/P.O. #:

Dept./Cost Code:

Requisitioner: St. Charles

Turnaround Time: ☐ Standard ☐ Accelerated ☐ Priority ☐ Urgent ☐ Emergency

#	Sample ID	QC	Date Sampled	Matrix	Cont.	Preserv.	Parameters	LM 8-7-95 BA-AL-162	Arch. (Y/N)
	NP-ES34-080795-C		8/7/95	Water	1-1 liter	HNO3	As,Cr,Hg,Mn,Se,Pb	13657.01	N
					1-1 liter glass	Ice	2,4-DNT	↓	
					1-1 liter	H2SO4	NO3	↓	
					1-4 liter	HNO3	U, Gross alpha, Gross beta	↓	

Thomas DuWelton
Sampler's Signature

Checked By

Technical Reviewer

Relinquished By	Received By	Date	Time	Reason for Transfer	Seal Intact? (Y/N)	Cooler Temp
Tom Welton		8/7/95	12:00			
		8/7/95	1325	21°C		

AUTHORIZATION

BC-F Procurem. Date ES&H Date Site Shipping Officer Date

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.
875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

August 25, 1995

Stanley M. Remington
919 Broadmoor Lane
St. Charles, MO 63301

RE: ATAS #13715.01
WSSRAP

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on August 18, 1995.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr
Project Manager

Enclosures

JAC/dms

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501M(231)
DATE : 08-25-95

SAMPLE MATRIX : WATER
ATAS # : 13715.01
DATE SUBMITTED: 08-18-95
PROJECT : WSSRAP
SAMPLE ID : NP-EPQZ-081895-C

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
			INORGANICS		
NITRATE-SPEC.	1.0	mg/L	3.51	08-22-95	SM 418B
			METALS		
ARSENIC	5.0	ug/L	ND	08-22-95	SW 6010
CHROMIUM	1.0	ug/L	ND	08-22-95	SW 6010
COPPER	2.0	ug/L	ND	08-22-95	SW 6010
LEAD	3.0	ug/L	ND	08-22-95	SW 6010
MANGANESE	1.0	ug/L	13.9	08-22-95	SW 6010
MERCURY	0.15	ug/L	ND	08-21-95	SW 7470
SELENIUM	5.0	ug/L	ND	08-22-95	SW 6010

ug/L = PARTS PER BILLION(PPB)
mg/L = PARTS PER MILLION(PPM)
ND = NOT DETECTED ABOVE REPORTING LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501M(231)

DATE : 08-25-95

QA/QC

DESCRIPTION		PARAMETER	RESULTS	
METHOD BLANK	08-22-95	ARSENIC	<5.0	ug/L
METHOD BLANK	08-22-95	CHROMIUM	<1.0	ug/L
METHOD BLANK	08-22-95	COPPER	<2.0	ug/L
METHOD BLANK	08-22-95	LEAD	<3.0	ug/L
METHOD BLANK	08-22-95	MANGANESE	<1.0	ug/L
METHOD BLANK	08-21-95	MERCURY	<0.15	ug/L
METHOD BLANK	08-22-95	SELENIUM	<5.0	ug/L
METHOD BLANK	08-23-95	NITRATE	<1.0	mg/L
BLANK SPIKE	08-22-95	ARSENIC	103 %	RECOVERY
BLANK SPIKE	08-22-95	CHROMIUM	98 %	RECOVERY
BLANK SPIKE	08-22-95	COPPER	96 %	RECOVERY
BLANK SPIKE	08-22-95	LEAD	96 %	RECOVERY
BLANK SPIKE	08-22-95	MANGANESE	95 %	RECOVERY
BLANK SPIKE	08-21-95	MERCURY	94 %	RECOVERY
BLANK SPIKE	08-22-95	SELENIUM	102 %	RECOVERY
BLANK SPIKE	08-23-95	NITRATE	107 %	RECOVERY

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501R(231)

DATE : 08-25-95

SAMPLE MATRIX : WATER
ATAS EPISODE : #13715
DATE SUBMITTED: 08-18-95
PROJECT : WSSRAP

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	UNITS	RADIONUCLIDE	RESULT
NP-EPQZ-081895-C	13715.01	pCi/L	GROSS ALPHA	0 +/- 4*
NP-EPQZ-081895-C	13715.01	pCi/L	GROSS BETA	10 +/- 6*
NP-EPQZ-081895-C	13715.01	mg/L	TOTAL URANIUM	<0.005

* VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.96σ.
pCi/L= PICOCURIES PER LITER

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501EX(231)
DATE : 08-25-95

SAMPLE MATRIX : WATER
ATAS # : 13715.01
DATE SUBMITTED: 08-18-95
DATE EXTRACTED: 08-21-95
DATE ANALYZED : 08-21-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : NP-EPQZ-081895-C

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	REPORTING LIMIT	RESULTS
2,6 DNT	0.0113	ND
2,4 DNT	0.0226	ND

QA/QC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150)	64 %
TETRACHLORO-M-XYLENE(30-150)	77 %

ND= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501EX(231)

DATE : 08-25-95

SAMPLE MATRIX : WATER
ATAS # : METHOD BLANK
DATE SUBMITTED: 08-18-95
DATE EXTRACTED: 08-21-95
DATE ANALYZED : 08-21-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	REPORTING LIMIT	RESULTS
2,6 DNT	0.010	ND
2,4 DNT	0.020	ND

QA/QC SURROGATE RECOVERY

DECACHLOROBIPHENYL(30-150)	70 %
TETRACHLORO-M-XYLENE(30-150)	86 %

ND= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1371501EX(231)

DATE : 08-25-95

SAMPLE MATRIX : WATER
ATAS # : LABORATORY CONTROL SAMPLE
DATE SUBMITTED: 08-18-95
DATE EXTRACTED: 08-21-95
DATE ANALYZED : 08-21-95
METHOD REF. : SW846-8090, EPA METHODOLOGY
PROJECT : WSSRAP
SAMPLE ID : LABORATORY CONTROL SAMPLE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

COMPOUND	SPIKE ADDED(ug/L)	AMT. FOUND SMPL.(ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
2,6 DNT	0.250	ND	0.212	85 %
2,4 DNT	0.250	ND	0.213	85 %

	AMT. FOUND SBD (ug/L)	PERCENT RECOVERY	PERCENT DIFFERENCE
2,6 DNT	0.210	84 %	1.2 %
2,4 DNT	0.211	84 %	1.2 %

ENVIRONMENTAL S...
WELDON SPR...
7295 H...
TELEPH...

Validation Documentation ☐

WSSRAP Contact:	Lab/P.O. #:
Phone Number:	Requisitioner: St.
Request Number:	Turnaround Time: ☐

#	Sample ID	QC	Date Sampled	Matrix			
	NP-EPQ2-08/B95-C		8/18/95	Water			As Cr Hg Mn Se Pb Cu 24 DNT NO_3 U, Gross alpha Gross beta

WD
8/18/95
IC4-RA-AL
13715.01

Sam Welton
Sampler's Signature

Checked By

Technical Reviewer

Relinquished By	Received By	Date	Time	Remarks	Seal Intact?	Cooler Temp
Thomas Welton	[illegible]	8/18/95	1205			
[illegible]	[illegible]	8-18-95	1253	26°C		

AUTHORIZATION

C-F Procurement Date ES&H

DATE: 08/03/95

ST. CHARLES COUNTY WATER DEPARTMENT

MONTHLY WATER USAGE REPORT

MONTH OF: JULY	MONTHLY USAGED	AVG MGD	Y TO D USAGED	Y TO D AVG MGD
PLANT PRODUCTION	428828000	13.80	2091978000	9.867
PLANT USE	8119000	00.20	78711000	0.372
DELIVERED TO SYSTEM	420709000	13.60	2013267000	9.495
MISSOURI CITIES WATER	338000000	10.90	1632749000	7.702
WATER DISTRICT #2 24" LINE	67909000	02.20	316921000	1.495
WATER DIST. #2 NEW MELLE	10145000	00.30	46660000	0.220
NATIONAL GUARD AREA	000	0	203000	
TOTAL METER SALES	416054000	13.40	1996531000	9.417
UNMETERED AND UNACCOUNTED	000	0	000	

INVENTORY OF CHEMICALS

	LIME	CHLORINE
PREV. BALANCE	+: 239261	+: 7681
RECEIVED	+: 587920	+: 24000
TOTAL	=: 827181	=: 31681
USED	-: 711587	-: 25250
BALANCE	=: 115594	=: 6431
POUNDS PER 1000 GALLONS	=: 1.65	=: 0.058
PARTS PER MILLION	=: 197	=: 7.12
AVG. POUNDS PER DAY	=: 22954	=: 815
POUNDS USED YEAR TO DATE	=: 2857976	=: 129735

DATE: 08/03/95 FOR THE MONTH OF: JULY

METER READINGS

ACCOUNT #	METER	TO:	FROM:	USAGED
MISSOURI CITIES BOOSTER STATION				
	ULTRA SONIC #1	+:	-:	=:
	ULTRA SONIC #2	+:	-:	=:
	TOTALIZER	+:	-:	=: 335704000

METERS BEFORE MISSOURI CITIES BOOSTER STATION

		TO: 07/03/95	FROM: 06/03/95	USAGED
04-50-1328350	1. FH ANNEX 4" +:	1181-12	-: 1180-0	=: 13000
04-50-1328500	2. MO STATE SHED +:	216	-: 210	=: 6000
04-50-1330000	3. DOE LAB LARGE +:	470	-: 460	=: 10000
	SMALL +:	14148	-: 13510	=: 638000
04-50-1330401	4. DOE FIRE LINE +:	19342	-: 18486	=: 856000
04-50-1330701	5. DOE TRAILERS +:	82	-: 82	=:
04-50-1330100	6. DOE 8" #1 LARGE+:	6833	-: 6423	=: 410000
	SMALL+:	6180	-: 6120	=: 60000
04-50-1330200	7. DOE 8" #2 LARGE+:	2128	-: 2078	=: 50000
	SMALL+:	2540	-: 2500	=: 40000
04-50-1320200	8. DOE 3" +:	3885	-: 3844	=: 41000
04-50-1328550	9. FH SCHOOL +:	131110-132	-: 130710-0	=: 172000
			TOTAL	=: 2296000

MISSOURI CITIES TOTAL =: 338000000

WATER DIST. #2 24" LINE

	TO: 08/01/95/	FROM: 06/30/95	USAGED
24" EAST +:	201747	-: 201747	=:
24" WEST +:	236223	-: 168314	=: 67909000
BYPASS +:	2340	-: 2340	=:

WATER DIST. #2 TOTAL =: 6790900

NEW MELLE +:	290397	-: 280252	=: 10145000

MONTHLY REPORT

SEPTEMBER 1995

BY

Stanley M. Remington

Consulting Hydrologist

I. CHEMICAL ANALYSES

There were two pumping wells sampled on September 28, 1995. These were PW-8 and PW-9. The parameters measured were the quarterly ones, which include mercury, nitrates, and the usual total uranium, gross alpha and beta, and nitroaromatics.

The results from the sampling done by me on August 25, 1995 are appended. All of the parameters measured showed that they were well below the NPDES limits and were within historical ranges.

II. FUTURE PLANS

For the first time in several months the RMW wells can be reached and pumped. These are the four observation wells drilled by the St. Charles County about seven years ago. They were drilled as observation wells to measure any hazardous chemicals coming from the two major sources of contaminations, i.e., the quarry and the raffinate pits located at the old chemical plant site. The Department of Energy first had to wait for the floods to recede, the areas to dry out, and then they had to replace all of the electrical circuitry on the four wells so that they could be pumped. The dedicated pumps, as they have termed them,

were not damaged. The DOE and I will sample RMW-2 in the early part of October 1995. We will sample the quarterly parameters because of the long period since they were last tested. RMW-2 is a critical observation well since it is located about half-way between the quarry and pumping wells PW-8 and PW-9.

As there were no treated samples from either the quarry or raffinate pits that were due for me to measure, none were sampled during September. There will be one sample taken during early October. I will sample PW-7 during the latter part of October.

III. MISCELLANEOUS

Appended is the St. Charles County Water Department's monthly water usage report for the month of August 1995.

I was asked to obtain the latest National Primary Interim Drinking Water Standards, for gross alpha and gross beta. These are dated July 9, 1976. They are:

Gross Alpha - If greater than 5.0 Picocuries per liter, then measure for radium (the probable source)

Gross Beta - 50 picocuries per liter is the maximum allowed.

During the eight years that the county and DOE have been measuring these two parameters, none have ever reached

these figures south of the Femme Osage Slough. All have been well below the standards.

AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.
875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

September 15, 1995

Stanley M. Remington
919 Broadmoor Lane
St. Charles, MO 63301

RE: ATAS #13747.01
Weldon Spring

Dear Mr. Remington:

Enclosed is the analytical report for the sample received in our laboratory on August 25, 1995.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr
Project Manager

Enclosures

JAC/dms

ATAS

"Professional Commitment"

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1374701X(231)

DATE : 09-15-95

SAMPLE MATRIX : WATER
ATAS EPISODE : #13747
DATE SUBMITTED: 08-25-95
PROJECT : WELDON SPRING

RESULTS REPORTED IN pCi/L

CLIENT ID	ATAS ID	UNITS	RADIONUCLIDE	RESULT
PW-6	13747.01	pCi/L	GROSS ALPHA	6 +/- 3*
PW-6	13747.01	pCi/L	GROSS BETA	10 +/- 4*
PW-6	13747.01	mg/L	TOTAL URANIUM	<0.005

* VARIABILITY OF THE RADIOACTIVE DISINTERGRATION PROCESS (COUNTING ERROR) AT THE 95% CONFIDENCE LEVEL, 1.96σ.
pCi/L= PICOCURIES PER LITER

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1374701X(231)

DATE : 09-15-95

SAMPLE MATRIX : WATER
ATAS # : 13747.01
DATE SUBMITTED: 08-25-95
DATE ANALYZED : 09-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : PW-6

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
2NT	12.0	ND
4NT	8.0	ND
3NT	7.9	ND

ND NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1374701X(231)

DATE : 09-15-95

SAMPLE MATRIX : WATER
ATAS # : METHOD BLANK
DATE SUBMITTED: 08-25-95
DATE ANALYZED : 09-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : METHOD BLANK

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

EXPLOSIVE	QUANTITATION LIMIT	RESULTS
HMX	13.0	ND
RDX	14.0	ND
1,3,5-TNB	7.3	ND
TETRYL	10.0	ND
1,3-DNB	4.0	ND
NITROBENZENE	7.0	ND
2,6 DNT	9.4	ND
2,4 DNT	5.7	ND
2,4,6 TNT	6.4	ND
2NT	12.0	ND
4NT	8.0	ND
3NT	7.9	ND

ND= NOT DETECTED ABOVE QUANTITATION LIMIT

ATAS 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: STANLEY M. REMINGTON
919 BROADMOOR LANE
ST. CHARLES, MO 63301
ATTN: STANLEY M. REMINGTON

REPORT: 1374701X(231)

DATE : 09-15-95

SAMPLE MATRIX : WATER
ATAS # : LABORATORY CONTROL SAMPLE
DATE SUBMITTED: 08-25-95
DATE ANALYZED : 09-01-95
METHOD REF. : SW846-8330, EPA METHODOLOGY
PROJECT : WELDON SPRING
SAMPLE ID : LABORATORY CONTROL SAMPLE

RESULTS REPORTED IN ug/L OR PARTS PER BILLION(PPB)

COMPOUND	SPIKE ADDED(ug/L)	AMT. FOUND SMPL. (ug/L)	AMT. FOUND LCS(ug/L)	PERCENT RECOVERY
HMX	1600	0	1690	106 %
[illegible]X	1300	0	1410	108 %
,3,5-TNB	900	0	1030	114 %
TETRYL	1650	0	2150	130*%
1,3-DNB	475	0	470	99 %
TNT	750	0	883	118 %
NITROBENZENE	750	0	918	108 %
2,6 DNT	1850	0	1220	106 %
2,4 DNT	850	0	766	109 %
o-NITROTOLUENE	1150	0	1620	112 %
p-NITROTOLUENE	1000	0	1100	110 %
m-NITROTOLUENE	950	0	1020	107 %

ATAS

AMERICAN TECHNICAL & ANALYTICAL SERVICES, Inc.

875 Fee Fee Road • Maryland Heights, MO 63043-3211 • Office (314) 434-4570 • FAX (314) 434-0080

PAGE ____ OF ____

CHAIN OF CUSTODY RECORD

ATAS Client Name: STAN REMINGTON

Project Name: WELDON SPRING

Project #:

Form Completed By: S. REMINGTON

PO #:

Sample ID	Sample Date	Sample Time	Sample Matrix	Grab	Comp	No. of Containers	Total U	Gross α	Gross β	Nitros	TSS*					Remarks	Lab Use Only (Initials / Date / Location/Temp)
PW-6	8/25/95	0900		X			X	X	X	X							13747.01
WATER TREAT. PLANT											X					*DID NOT HAVE TSS SAMPLE LM 8/25/95	

Preservative: Ice, Chemical (see below)

Lab Use Only: Initials: LM; Date: 8-25-95; Location/Temp: ALBA 15°C

Relinquished by:	Received by:	Relinquished by:	Received by:
S. Remington	L. Massenberg		
Signature: S. REMINGTON	Signature: L. MASSENBERG	Signature	Signature
Printed Name: S.C. COUNTY	Printed Name: ATAS	Printed Name	Printed Name
Firm: 8/25/95 1045	Firm: 8/25/95 1045	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time

Turnaround Requirements
- ____ 1 to 2 working days
- ____ 3 working days
- ____ 5 working days
- ____ 10 working days
- ____ 15 working days

Preservative codes
- A - none
- B - HNO_3
- C - H_2SO_4
- D - NaOH
- E - HCl
- F - _____

SEND RESULTS TO (Name & Company) : _____

Original to ATAS/Copy to Client

DATE: 09/05/95

ST. CHARLES COUNTY WATER DEPARTMENT

MONTHLY WATER USAGE REPORT

MONTH OF: AUG95	MONTHLY USAGED	AVG MGD	Y TO DATE USAGED	AVG MGD
PLANT PRODUCTION	434725000	14.00	2525703000	10.10
PLANT USE	23806000	0.70	102517000	0.42
DELIVERED TO SYSTEM	410919000	13.20	2424186000	9.97
MISSOURI CITIES WATER	318883000	10.20	1951632000	8.03
WATER DISTRICT #2 24" LINE	79341000	2.50	396262000	1.63
WATER DIST. #2 NEW MELLE	9253000	0.30	55913000	0.23
NATIONAL GUARD AREA	86000	0	289000	
TOTAL METER SALES	407563000	13.50	2404094000	9.89
UNMETERED AND UNACCOUNTED	3356000	0.10	000	

INVENTORY OF CHEMICALS

	LIME	CHLORINE
PREV. BALANCE	+: 115594	+: 6341
RECEIVED	+: 720520	+: 24000
TOTAL	=: 836114	=: 30341
USED	-: 669956	-: 22925
BALANCE	=: 166158	=: 7416
POUNDS PER 1000 GALLONS	=: 1.541	=: 0.053
PARTS PER MILLION	=: 185	=: 6.31
AVG. POUNDS PER DAY	=: 21611	=: 740
POUNDS USED YEAR TO DATE	=: 3527932	=: 152660

DATE: 09/05/95 FOR THE MONTH OF: AUG95

METER READINGS

ACCOUNT #	METER	TO:	FROM:	USAGED

MISSOURI CITIES BOOSTER STATION

	ULTRA SONIC #1	+:	-:	=:
	ULTRA SONIC #2	+:	-:	=:
	ESTIMATE-ULTRASONIC METERS OUT FOR CALIBRATION			
	TOTALIZER	+:	-:	=: 316123000

METERS BEFORE MISSOURI CITIES BOOSTER STATION

			TO: 8/2/95	FROM: 7/3/95	USAGED
04-50-1328350	1. FH ANNEX 4"	+:	41	-: 12	=: 29000
04-50-1328500	2. MO STATE SHED	+:	219	-: 216	=: 3000
04-50-1330000	3. DOE LAB LARGE	+:	480	-: 470	=: 10000
	SMALL	+:	15058	-: 14183	=: 910000
04-50-1330401	4. DOE FIRE LINE	+:	19342	-: 18486	=: 865000
04-50-1330701	5. DOE TRAILERS	+:	82	-: 82	=:
04-50-1330100	6. DOE 8" #1 LARGE	+:	7383	-: 6833	=: 550000
	SMALL	+:	6185	-: 6180	=: 5000
04-50-1330200	7. DOE 8" #2 LARGE	+:	2193	-: 2128	=: 65000
	SMALL	+:	2592	-: 2540	=: 55000
04-50-1320200	8. DOE 3"	+:		-: 3885	=:
04-50-1328550	9. FH SCHOOL	+:	440	-: 132	=: 268000
				TOTAL	=: 2760000

MISSOURI CITIES TOTAL =: 318883000

WATER DIST. #2 24" LINE

		TO: 9/1/95	FROM: 8/1/95	USAGED
	24" EAST	+: 201747	-: 201747	=:
	24" WEST	+: 315564	-: 236223	=: 79341000
	BYPASS	+: 2340	-: 2340	=:

WATER DIST. #2 TOTAL =: 79341000

	NEW MELLE	+: 299650	-: 290397	=: 9253000