INVESTIGATION DATA
LITTON ADVANCED CIRCUITRY DIVISION
SPRINGFIELD, MISSOURI

Prepared for:

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File No. 290008.01

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WASTE MANAGEMENT PROGRAM
MISSOURI DEPARTMENT OF
NATURAL RESOURCES

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STAFF SECTION

Site: Litton Septic
ID #: [illegible]
Date: 13
By: SCS Laboratory
2 3 91

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MEMO

To: Jeff Stewart

From: Lam V. Ho

Job No.: 0290008.01

February 13, 1991

LABORATORY REPORT

Samples: Fifteen (15) water samples and nine (9) soil samples from Litton ACD, received 01/29/91 and analyzed 2/04/91, 02/07/91, 02/08/91, 02/11/91 and 02/12/91. One (1) soil sample (B-B4-7) broken during shipment.

Sample ID	Cu (200.7)	Ni (200.7)	Zn (200.7)	CN^- (9010)
	mg/kg			
B-B1-5.5	10	38	50	ND
B-B1-10	12	27	56	ND
B-B2-6	830	36	61	ND
B-B3-5	5	ND	20	ND
B-B3-10	6	12	29	ND
B-B3-15	9	11	39	ND
B-B4-5	47	13	24	ND
B-B4-7	9	ND	20	ND
B-B4-10	25	25	50	ND
Detection Limit	2	10	2	1

ND - Not Detected

EPA 8240 and EPA 601 - see attached sheets

Loree Kenyon
Loree Kenyon
Chemist

Lam V Ho
Lam V. Ho PhD, REP
Laboratory Director

litton5.rep

LABORATORY REPORT

Sample ID	Cu (6010)	Ni (6010)	Zn (6010)	CN^- (9010)
	mg/L			
MW-1	ND	ND	ND	ND
MW-2	ND	ND	ND	ND
MW-3	691	0.6	5.4	ND
MW-4	7.8	ND	ND	ND
MW-5	0.2	0.5	ND	ND
MW-6	0.4	0 5	0.1	ND
MW-7	5.4	0.8	0.1	ND
MW-8	ND	ND	ND	ND
MW-9	ND	ND	ND	ND
MW-10	ND	ND	ND	0.3
MW-11	ND	ND	ND	ND
MW-12	ND	ND	ND	ND
MW-13	ND	ND	ND	ND
MW-14	ND	ND	ND	ND
Detection Limit	0.1	0.5	0.1	0.2

ND - Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B1-5.5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	14	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	ND	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B1-5.5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	260	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B1-10
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	ND	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B1-10
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	130	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B2-6
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	12	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B2-6
Date Received: 01/29/91
Date Analyzed: 12/26/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	41	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B3-5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	ND	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B3-5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	ND	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B3-10
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	16	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	11	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B3-10
Date Received: 12/21/90
Date Analyzed: 12/26/90
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	73	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B3-15
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	21	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	13	10
100-4[illegible]-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B3-15
Date Received: 12/21/90
Date Analyzed: 12/26/90
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	200	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B4-5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	ND	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B4-5
Date Received: 12/21/90
Date Analyzed: 12/26/90
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	ND	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240

Sample I.D.: B-B4-10
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)	----
67-64-1	Acetone	ND	50
107-02-8	Acrolein	ND	50
107-13-1	Acrylonitrile	ND	50
71-43-2	Benzene	ND	10
75-27-4	Bromodichloromethane	ND	10
75-25-2	Bromoform	ND	10
74-83-9	Bromomethane	ND	30
78-93-3	2-Butanone	ND	50
75-15-0	Carbon Disulfide	ND	10
56-23-5	Carbon Tetrachloride	ND	10
108-90-7	Chlorobenzene	ND	10
124-48-1	Chlorodibromomethane	ND	10
75-00-3	Chloroethane	ND	30
110-75-8	2-Chloroethyl Vinyl Ether	ND	50
67-66-3	Chloroform	ND	10
74-87-3	Chloromethane	ND	30
74-95-3	Dibromomethane	ND	10
110-56-5	1,4-Dichloro-2-butene	ND	10
75-71-8	Dichlorodifluoromethane	ND	10
75-34-3	1,1-Dichloroethane	ND	10
107-06-2	1,2-Dichloroethane	ND	10
75-35-4	1,1-Dichloroethene	ND	10
156-60-5	trans-1,2-Dichloroethene	ND	10
78-87-5	1,2-Dichloropropane	ND	10
10061-01-5	cis-1,3-Dichloropropene	ND	10
10061-02-6	trans-1,3-Dichloropropene	ND	10
64-17-5	Ethanol	480	10
100-41-4	Ethylbenzene	ND	10
97-63-2	Ethyl Methylacrylate	ND	10
591-78-6	2-Hexanone	ND	30
74-88-4	Iodomethane	ND	10
75-09-2	Methylene Chloride	ND	50
108-10-1	4-Methyl-2-Pentanone	ND	30

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 8240 (Cont.)

Sample I.D.: B-B4-10
Date Received: 12/21/90
Date Analyzed: 12/26/90
Matrix: Soil
Project #: 0290008.01
File #: litton5.rep

CAS #	Compound	Result	D.L.
		----ug/kg(ppb)----	
100-42-5	Styrene	ND	10
79-34-5	1,1,2,2-Tetrachloroethane	ND	10
127-18-4	Tetrachloroethene	ND	10
108-88-3	Toluene	ND	10
71-55-6	1,1,1-Trichloroethane	ND	10
79-00-5	1,1,2-Trichloroethane	ND	10
79-01-6	Trichloroethene	ND	10
75-69-4	Trichlorofluoromethane	ND	10
96-18-4	1,2,3-Trichloropropane	ND	10
108-05-4	Vinyl Acetate	ND	30
75-01-4	Vinyl Chloride	ND	30
1330-20-7	m- and p-Xylenes	ND	10
95-47-6	o-Xylene	ND	10
541-73-1	1,3-Dichlorobenzene	ND	10
106-46-7	1,4-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW1
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	23	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	80	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW2
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	10	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1 3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	22	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	34	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW3
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result ----ug/L (ppb)----	D.L.
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	70	5
1,2-Dichloropropane	15	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	5000	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	20	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	20	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW4
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	9	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	3	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW5
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)----	
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	60	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	134	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	135	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	400	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	490	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW6
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result ----ug/L (ppb)----	D.L.
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	8	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	32	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	1200	50
trans-1,2-Dichloroethene	15	5
1,2-Dichloropropane	1500	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	90	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	10	1
1,1,1-Trichloroethane	12000	1
1,1,2-Trichloroethane	43	1
Trichloroethene	15000	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW7
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	30	2
Bromoform	ND	5
Carbon Tetrachloride	100	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	910	2
1,2-Dichloroethane	480	5
1,1-Dichloroethene	29300	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	ND	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	73000	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	2500	1
1,1,1-Trichloroethane	1000	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	130000	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW8
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	ND	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	5	1
1,1,1-Trichloroethane	76	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	208	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW9
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	12	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	250	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	ND	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	7	1
1,1,1-Trichloroethane	197	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	580	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW10
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	172	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	18	1
1,1,1-Trichloroethane	53	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	483	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW11
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	28	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	10	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	40	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	14	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	53	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW12
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)----	
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	50	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	135	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW13
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)	----
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	17	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	50	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	17	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	191	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: MW14
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)----	
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	ND	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	2	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

Addendum Report, EPA 601

Sample I.D.: Tripblank
Date Received: 01/29/91
Date Analyzed: 02/06/91
Matrix: Water
Project #: 0290008.01
File #: litton5.rep

Compound	Result	D.L.
	----ug/L (ppb)----	
Bromomethane	ND	50
Bromodichloromethane	ND	2
Bromoform	ND	5
Carbon Tetrachloride	ND	2
Chlorobenzene	ND	2
Chloroethane	ND	50
2-Chloroethylvinyl Ether	ND	100
Chloroform	ND	5
Chloromethane	ND	50
Dibromochloromethane	ND	2
1,2-Dichlorobenzene	ND	2
1,3-Dichlorobenzene	ND	2
1,4-Dichlorobenzene	ND	2
Dichlorodifluoromethane	ND	50
1,1-Dichloroethane	ND	2
1,2-Dichloroethane	ND	5
1,1-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	5
1,2-Dichloropropane	ND	2
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5
Methylene Chloride	ND	50
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene	ND	1
1,1,1-Trichloroethane	ND	1
1,1,2-Trichloroethane	ND	1
Trichloroethene	ND	1
Trichlorofluoromethane	ND	50
Vinyl Chloride	ND	50

D.L. = Detection Limit
ND = Not Detected

S.S ENGINEERS

BORING LOG
B-B1

SHEET NO. 1 OF 1

PROJECT NAME: Litton AOD

LOCATION: Springfield, MO

PROJECT NO.: 0290008.01

DRILLED BY: Layne Western Company

METHOD: 8.25" HSA

RIG: CME 55

LOGGED BY: J. Stewart

DATE STARTED: January 23, 1991

DATE COMPLETED: January 23, 1991

BORING DEPTH: 12.0 feet

BACKFILLED OR WELL CONSTRUCTED: Backfilled

BACKFILL MATERIAL: Cement slurry

WATER LEVEL DATUM:

WATER LEVEL BELOW DATUM:

DATE:

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Concrete; some gravel underlain by reddish brown clay with chert fragments	
5	B-B1-5	2	1	2		10		Chert, Tense Reddish brown clay	
								Increasing chert fragments	Wet
10	B-B1-10	2	3	50/5"		0			
								Chert and limestone	Sample taken from sides of auger
								Auger refusal; Bottom of boring at 12.0'	
15									
20									

SCS ENGINEERS

BORING LOG
B-B2

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD

DRILLED BY: Layne Western Company

LOGGED BY: J. Stewart

LOCATION: Springfield, MO

METHOD: 8.25" HSA

DATE STARTED: January 23, 1991

PROJECT NO.: 0290008.01

RIG: CME 55

DATE COMPLETED: January 23, 1991

BORING DEPTH: 9.75 feet

WATER LEVEL DATUM:

BACKFILLED OR WELL CONSTRUCTED: Backfilled

WATER LEVEL BELOW DATUM:

BACKFILL MATERIAL: Cement slurry

DATE:

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Asphalt; gravel and sand underlain by reddish brown clay with numerous chert fragments	
5									
	B-B2-6	6	3	3		14		Red clay with chert and limestone fragments	Moist
								Limestone	
10								Auger refusal; Bottom of boring at 9.75'	
15									
20									

SCS ENGINEERS

BORING LOG
B-B3

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD

LOCATION: Springfield, MO

PROJECT NO.: 0290008.01

DRILLED BY: Layne Western Company

METHOD: 8.25" HSA

RIG: CME 55

LOGGED BY: J. Stewart

DATE STARTED: January 24, 1991

DATE COMPLETED: January 24, 1991

BORING DEPTH: 16.5 feet

BACKFILLED OR WELL CONSTRUCTED: Backfilled

BACKFILL MATERIAL: Cement slurry

WATER LEVEL DATUM:

WATER LEVEL BELOW DATUM:

DATE:

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNU UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Asphalt; gravel and sand underlain by dark brown silty sand (fill)	
								Reddish brown clay	
5	B-B3-5	4	10	26		12		Increasing chert fragments	
									Moist
10	B-B3-10	9	11	11		12			
15	B-B3-15	6	11	19		12			
								Bottom of borrowing at 16.5'	
20									

SCS ENGINEERS

BORING LOG
B-B4

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD

LOCATION: Springfield, MO

PROJECT NO.: 0290008.01

DRILLED BY: Layne Western Company

METHOD: 8.25" HSA

RIG: CME 55

LOGGED BY: J. Stewart

DATE STARTED: January 24, 1991

DATE COMPLETED: January 24, 1991

BORING DEPTH: 11 feet

BACKFILLED OR WELL CONSTRUCTED: Backfilled

BACKFILL MATERIAL: Cement slurry

WATER LEVEL DATUM:

WATER LEVEL BELOW DATUM:

DATE:

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Asphalt underlain by brown clay with chert fragments	
5								Chert and limestone lense	Hard drilling
	B-B4-7	10	20	10		8		Reddish brown clay with chert fragments	Wet
10	B-B4-10	9	7	5		17			
								Bottom of boring at 11'	
15									
20									

SCS ENGINEERS

BORING LOG
MW-8

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD
LOCATION: Springfield, MO
PROJECT NO.: 0290008.01

DRILLED BY: Layne-Western Company
METHOD: 8.25" HSA
RIG: CME 55

LOGGED BY: J. Stewart
DATE STARTED: January 22, 1991
DATE COMPLETED: January 22, 1991

BORING DEPTH: 11.5 feet
BACKFILLED OR WELL CONSTRUCTED: Well
BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing
WATER LEVEL BELOW DATUM: 6.02 feet
DATE: January 25, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNU UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Dark brown topsoil underlain by brown clay with small chert fragments	
5									▽ 1-25-91
								Chert fragments decreasing	Wet
10								Beige cherty limestone	Hard drilling
								Auger refusal; Bottom of boring at 11.5'	
15									
20									

SCS ENGINEERS

BORING LOG
MW-9

PROJECT NAME: Litton AOD
LOCATION: Springfield, MO
PROJECT NO.: 0290008.01

DRILLED BY: Layne-Western Company
METHOD: 8.25" HSA
RIG: CME 55

LOGGED BY: J. Stewart
DATE STARTED: January 22, 1991
DATE COMPLETED: January 22, 1991

BORING DEPTH: 27.5 feet
BACKFILLED OR WELL CONSTRUCTED: Well
BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing
WATER LEVEL BELOW DATUM: 4.04 feet
DATE: January 25, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
					Dark brown topsoil underlain by dark brown clay	
					Increasing chert fragments	
						▼ 1-25-91
5						
						Hard drilling
					Chert lense or boulder	
					Orange to reddish brown clay with chert fragments	
10						Moist
15						
20						

SCS ENGINEERS

BORING LOG
MW-9

PROJECT NAME: Litton ACD

LOCATION: Springfield, MO

PROJECT NUMBER: 0290008.01

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				SAMP INT	REC	HNU UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
									Reddish brown clay, few chert fragments	Moist
									Bottom of boring at 27.5'	Boring dry at completion

SCS ENGINEERS

BORING LOG
MW-10

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD
LOCATION: Springfield, MO
PROJECT NO.: 0290008.01

DRILLED BY: Layne-Western Company
METHOD: 8.25" HSA
RIG: CME 55

LOGGED BY: J. Stewart
DATE STARTED: January 23, 1991
DATE COMPLETED: January 23, 1991

BORING DEPTH: 22.5 feet
BACKFILLED OR WELL CONSTRUCTED: Well
BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing
WATER LEVEL BELOW DATUM: 7.52 feet
DATE: January 25, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
					Dark brown topsoil	
					Orange to reddish brown clay with chert fragments	
					Increasing chert and limestone fragments	
5						
						Moist
						▽ 1-25-91
10					Chert fragments decreasing	
15						
					Thin chert or limestone lense	Hard drilling
					Reddish brown clay	
20						
						Wet
					Limestone	
					Auger refusal; Bottom of boring at 22.5'	Boring caved to 21.5'

SCS ENGINEERS

BORING LOG
MW-11

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD
LOCATION: Springfield, MO
PROJECT NO.: 0290008.01

DRILLED BY: Layne-Western Company
METHOD: 8.25" HSA
RIG: CME 55

LOGGED BY: J. Stewart
DATE STARTED: January 23, 1991
DATE COMPLETED: January 23, 1991

BORING DEPTH: 22.5 feet
BACKFILLED OR WELL CONSTRUCTED: Well
BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing
WATER LEVEL BELOW DATUM: 3.00 feet
DATE: January 25, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Asphalt; thin layer sand and gravel underlain by reddish to orange brown clay with chert fragments	
								Same with some black cinders	▽ 1-25-91
5									
									Slow drilling
								Chert lense or boulder	
10								Reddish brown clay with chert fragments	
								Increasing limestone fragments	
15									Moist
20									Wet
								Auger refusal; Bottom of boring at 22.5'	Boring caved to 17'

SCS ENGINEERS

BORING LOG
MW-12

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD

LOCATION: Springfield, MO

PROJECT NO.: 0290008.01

DRILLED BY: Layne-Western Company

METHOD: 8.25" HSA

RIG: CME 55

LOGGED BY: J. Stewart

DATE STARTED: January 21, 1991

DATE COMPLETED: January 21, 1991

BORING DEPTH: 20 feet

BACKFILLED OR WELL CONSTRUCTED: Well

BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing

WATER LEVEL BELOW DATUM: 4.32 feet

DATE: January 24, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	RECOVERY INCHES	HNU UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
					Dark brown topsoil underlain by dark brown clay with chert fragments	
5						▽ 1-24-91
					Becoming reddish brown	Wet
10						
15						
						Caved to 19.5'
20					Bottom of boring at 20'	

SCS ENGINEERS

BORING LOG
MW-13

PROJECT NAME: Litton ACD
LOCATION: Springfield, MO
PROJECT NO.: 0290008.01

DRILLED BY: Layne Western Company
METHOD: 8.25" HSA
RIG: CME 55

LOGGED BY: J. Stewart
DATE STARTED: January 21, 1991
DATE COMPLETED: January 21, 1991

BORING DEPTH: 26.75 feet
BACKFILLED OR WELL CONSTRUCTED: Well
BACKFILL MATERIAL:

WATER LEVEL DATUM: Top of PVC casing
WATER LEVEL BELOW DATUM: 11.12 feet
DATE: January 24, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	RECOVERY INCHES	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
					Dark brown topsoil underlain by dark brown clay with chert fragments	
					Becoming orange to reddish brown	
5						
10						▽ 1-24-91
					Chert lense or boulder	
15					Reddish brown clay with chert fragments	
20						
						Wet

PROJECT NAME: Litton ACD LOCATION: Springfield, MO PROJECT NUMBER: 0290008.01

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				SAMP INT	REC	HNu UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
									Limestone	
									Auger refusal; Bottom of boring at 26.75'	

SCS ENGINEERS

BORING LOG
MW-14

SHEET NO. 1 OF 1

PROJECT NAME: Litton ACD

DRILLED BY: Layne Western Company

LOGGED BY: J. Stewart

LOCATION: Springfield, MO

METHOD: 8.25" HSA

DATE STARTED: January 22, 1991

PROJECT NO.: 0290008.01

RIG: CME 55

DATE COMPLETED: January 22, 1991

BORING DEPTH: 11.5 feet

WATER LEVEL DATUM: Top of PVC casing

BACKFILLED OR WELL CONSTRUCTED: Well

WATER LEVEL BELOW DATUM: 3.75 feet

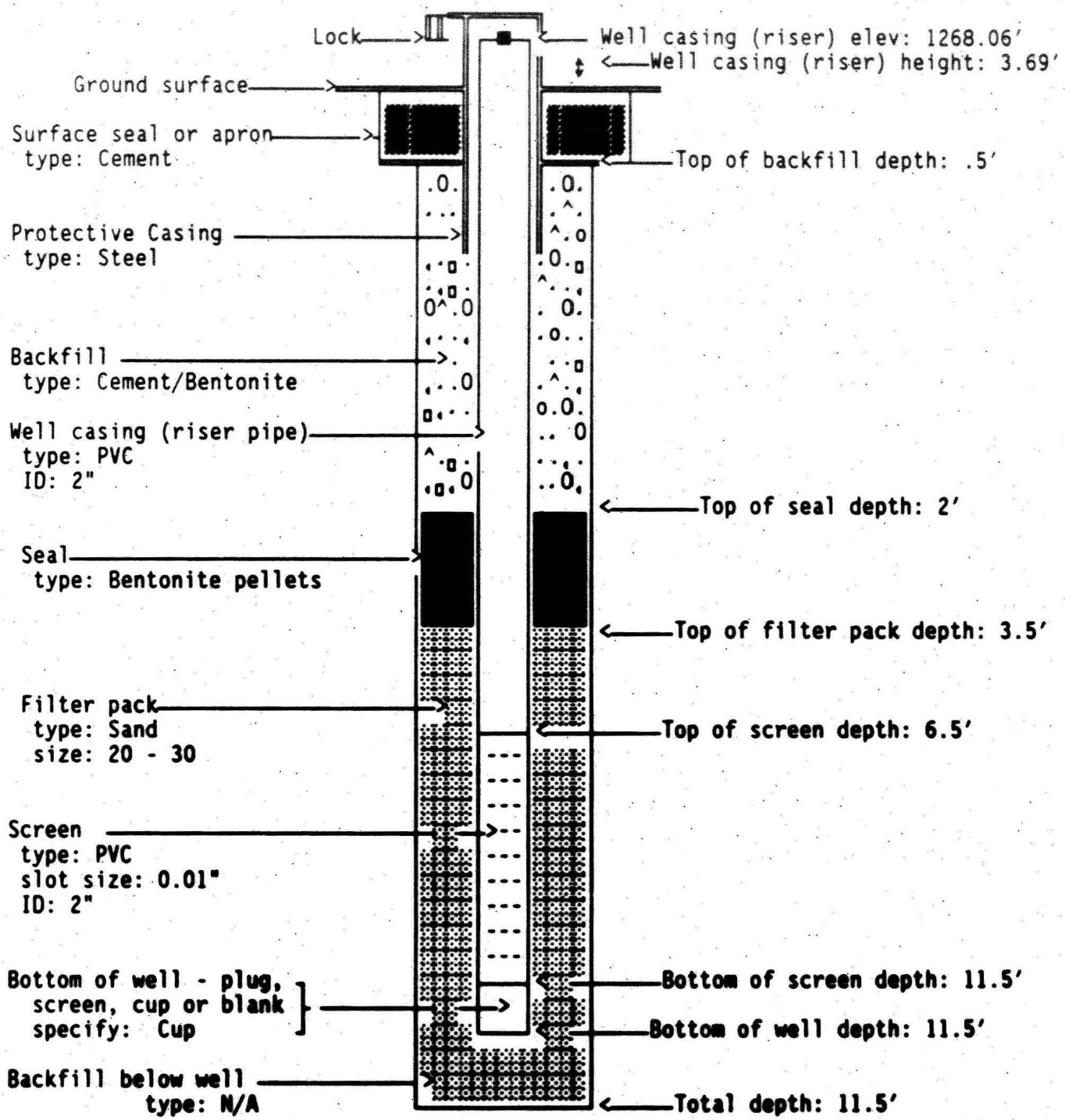
BACKFILL MATERIAL:

DATE: January 24, 1991

DEPTH	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"				RECOVERY INCHES	HNU UNITS	DESCRIPTION	SPECIAL NOTES OBSERVATIONS
								Dark brown topsoil underlain by orange brown clay	
								Increasing chert fragments	▼ 1-24-91
5								Chert lense or boulder Reddish brown clay, some black staining	
								Increasing fine chert fragments	Wet
10								Limestone	Hard drilling
								Auger refusal; Bottom of boring at 11.5'	
15									
20									

SCS ENGINEERS

MONITORING WELL INSTALLATION RECORD



PROJECT NUMBER: 0290008.01

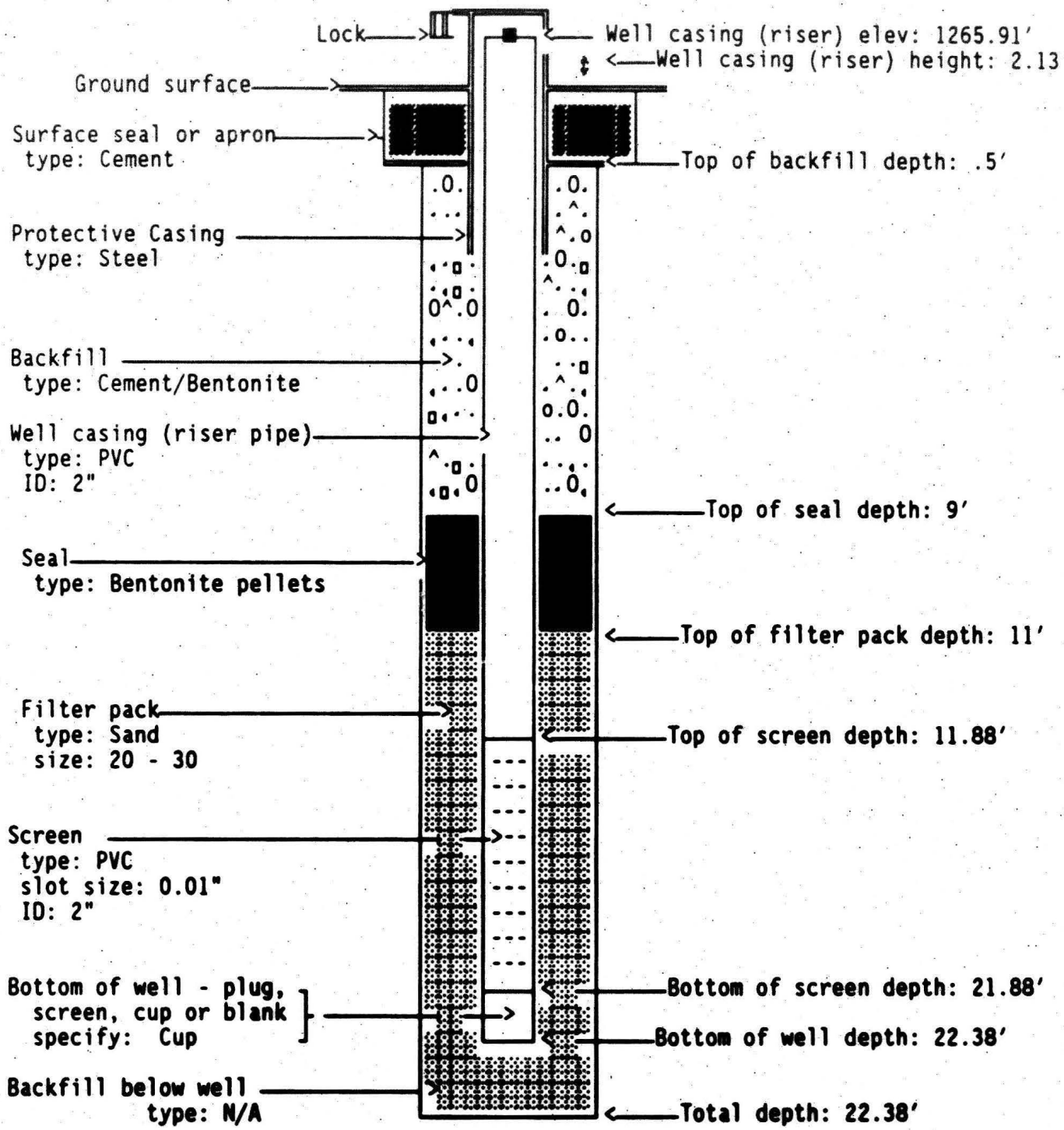
WELL NUMBER: MW-8

PROJECT NAME: Litton ACD
DATE COMPLETED: January 22, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/ W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 5'
SCREEN SLOT SIZE: 0.01"

SCS ENGINEERS

MONITORING WELL INSTALLATION RECORD



PROJECT NUMBER: 0290008.01

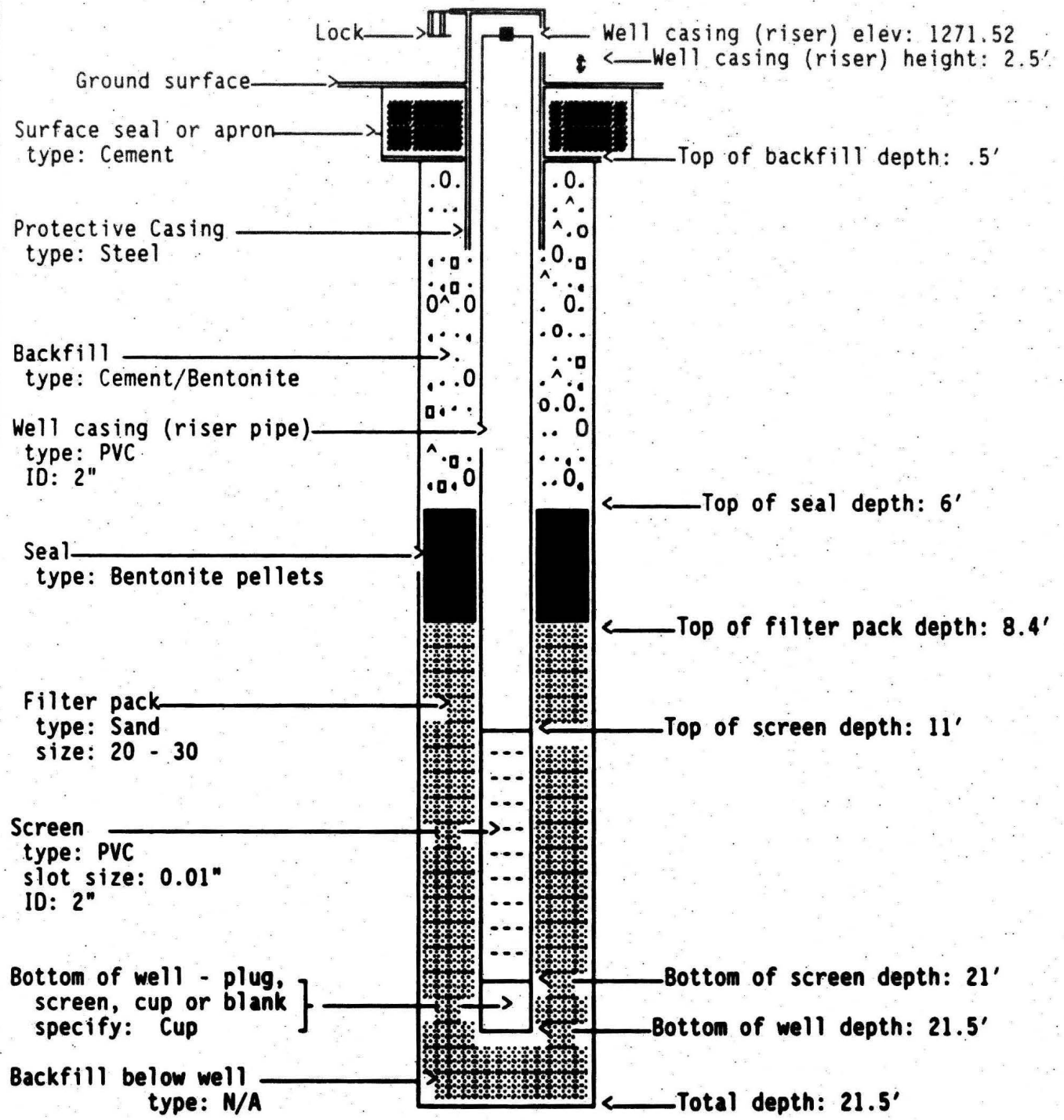
WELL NUMBER: MW-9

PROJECT NAME: Litton ACD
DATE COMPLETED: January 23, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/ W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 10'
SCREEN SLOT SIZE: 0.01"

SCS ENGINEERS

MONITORING WELL INSTALLATION RECORD



PROJECT NUMBER: 0290008.01

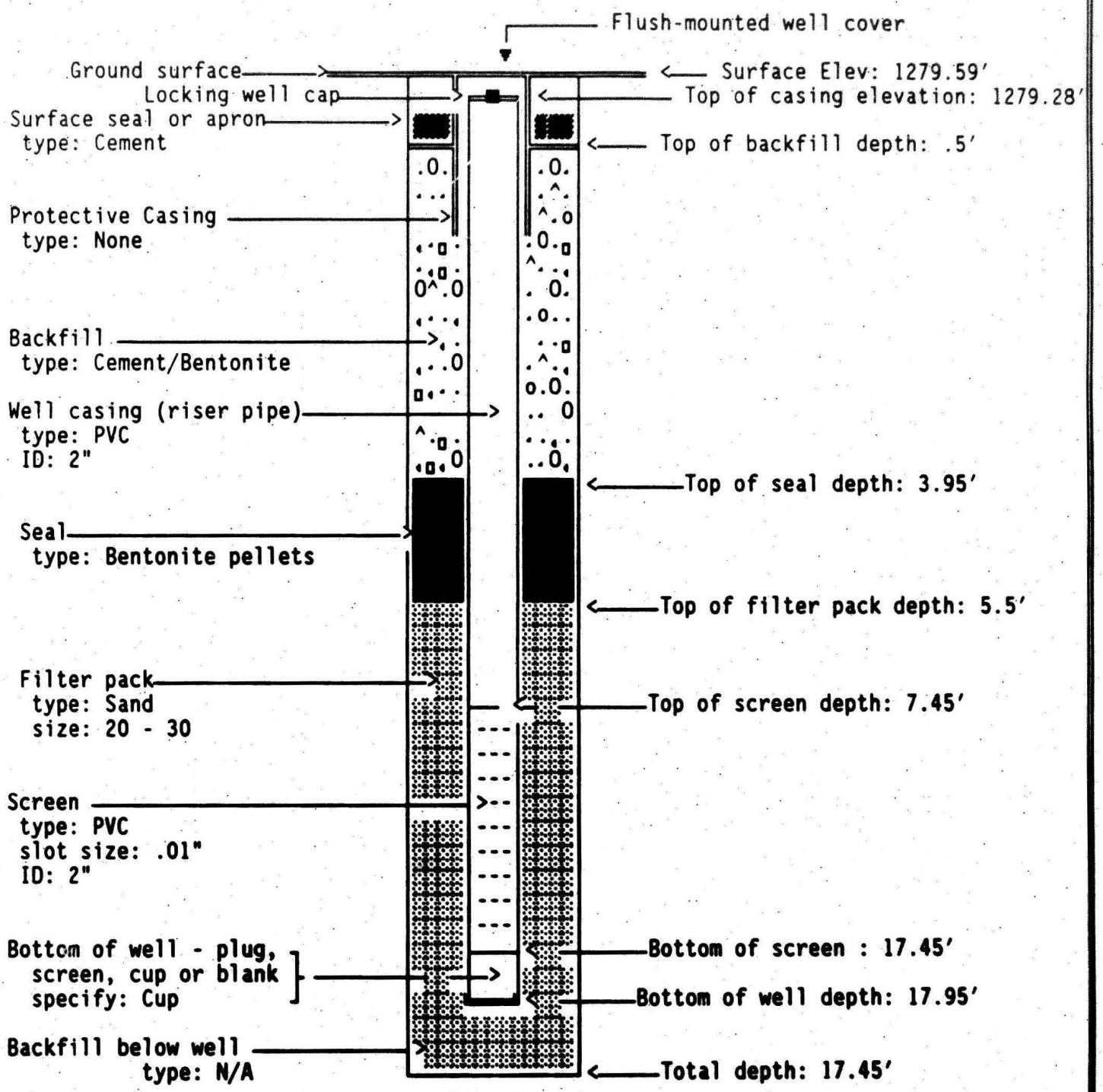
WELL NUMBER: MW-10

PROJECT NAME: Litton ACD
DATE COMPLETED: January 23, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/ W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 10'
SCREEN SLOT SIZE: 0.01"

SCS ENGINEERS

MONITORING WELL INSTALLATION FORM



PROJECT NUMBER: 0290008.01

WELL NUMBER: MW-11

PROJECT NAME: Litton ACD

LOCATION: Springfield, MO

DATE COMPLETED: January 23, 1991

CASING (RISER) ID: 2"

INSTALLED BY: Layne Western Company

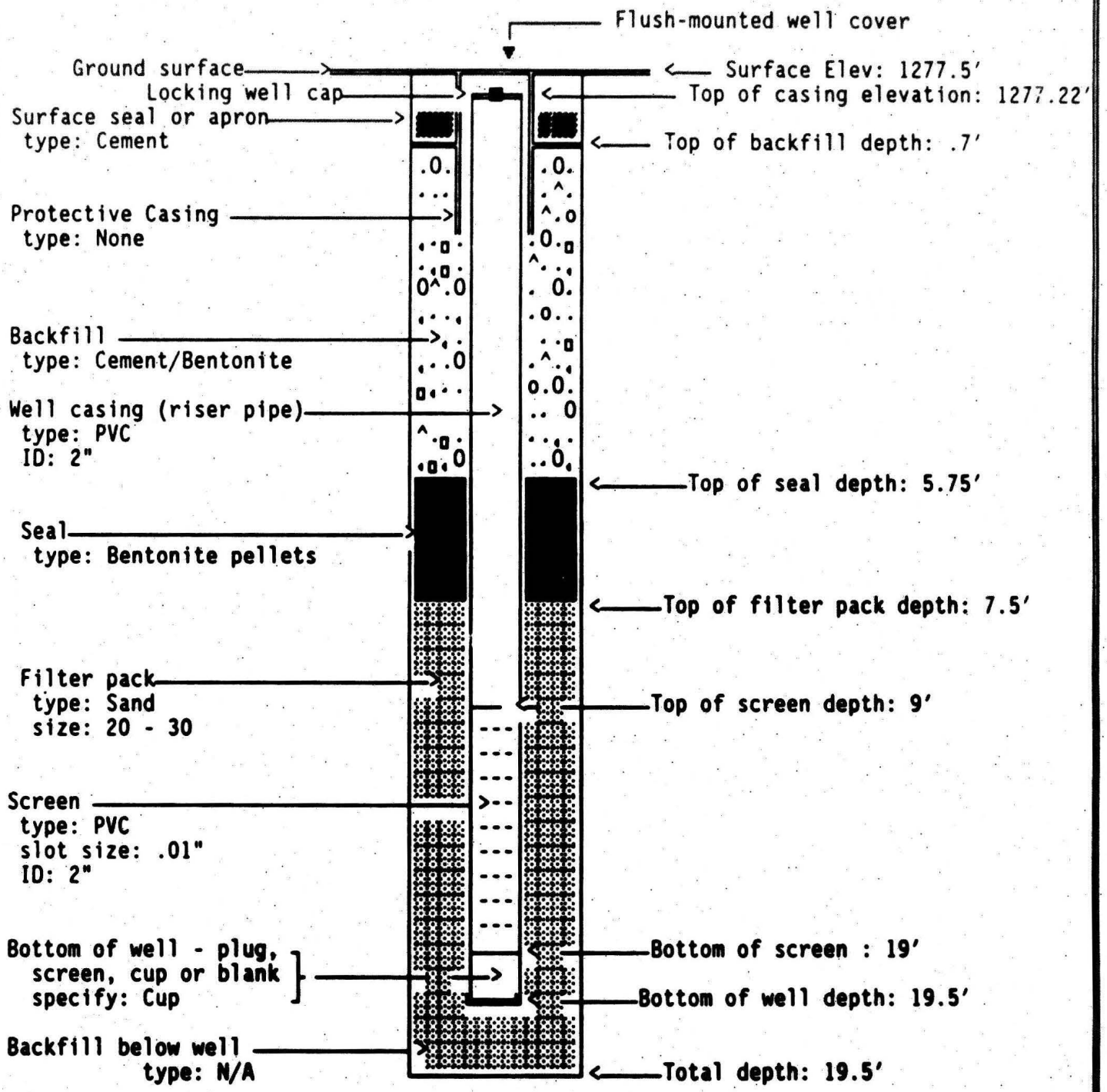
SCREEN LENGTH: 10'

INSPECTED BY: J. Stewart/W. Wright

SCREEN SLOT SIZE: .01"

SCS ENGINEERS

MONITORING WELL INSTALLATION FORM



PROJECT NUMBER: 0290008.01

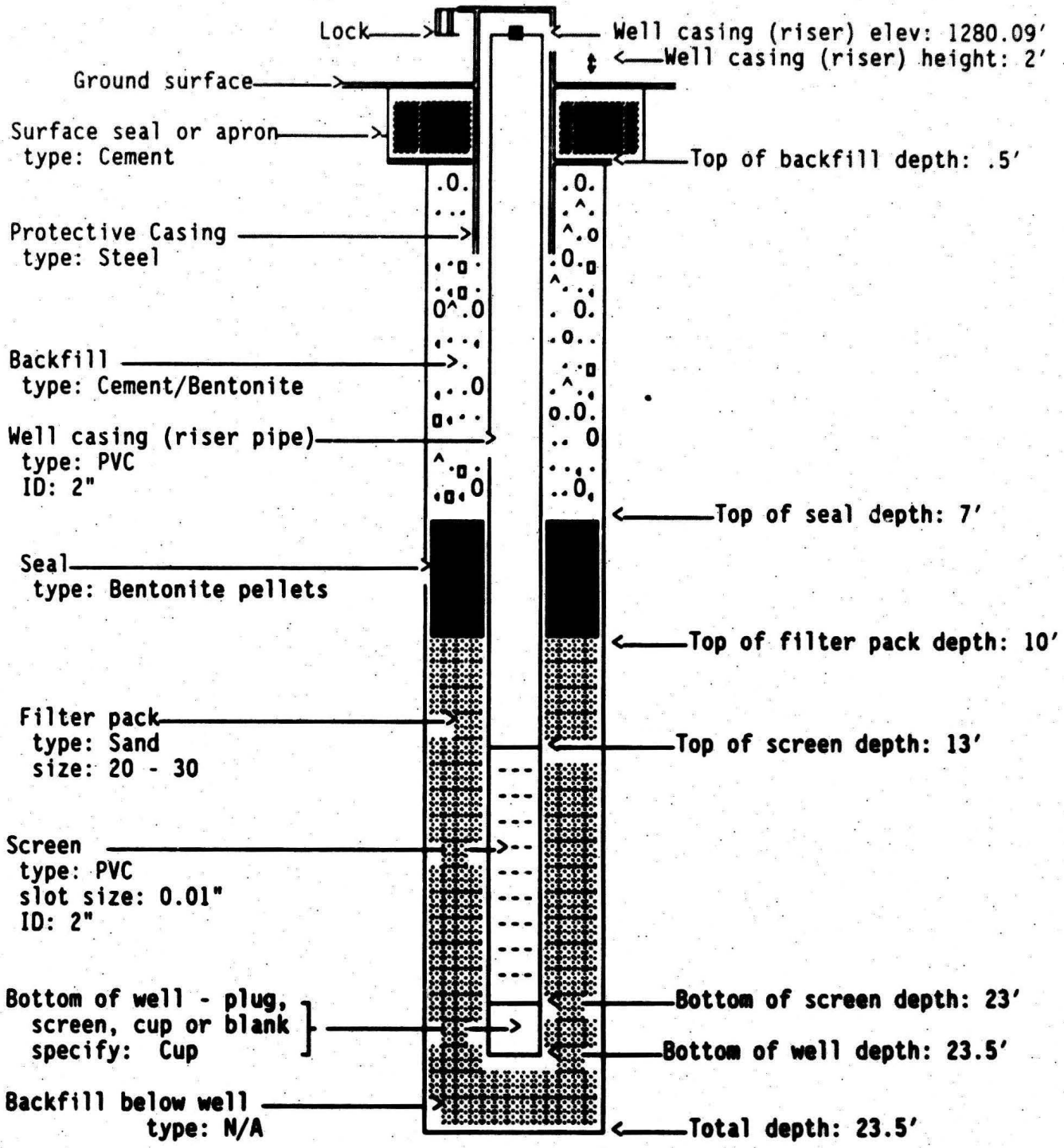
WELL NUMBER: MW-12

PROJECT NAME: Litton ACD
DATE COMPLETED: January 21, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 10'
SCREEN SLOT SIZE: .01"

SCS ENGINEERS

MONITORING WELL INSTALLATION RECORD



PROJECT NUMBER: 0290008.01

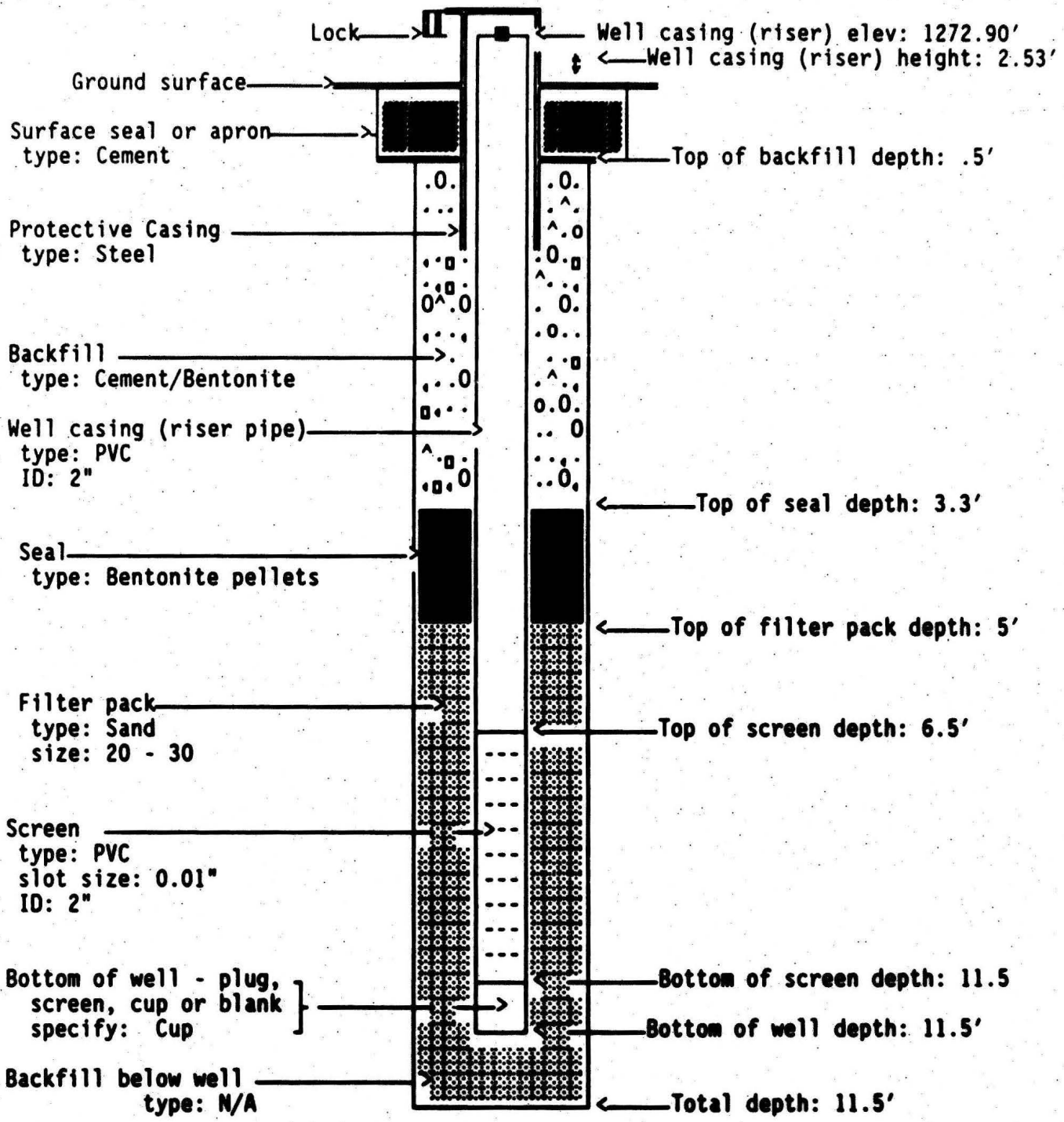
WELL NUMBER: MW-13

PROJECT NAME: Litton ACD
DATE COMPLETED: January 21, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/ W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 10'
SCREEN SLOT SIZE: 0.01"

SCS ENGINEERS

MONITORING WELL INSTALLATION RECORD



PROJECT NUMBER: 0290008.01

WELL NUMBER: MW-14

PROJECT NAME: Litton ACD
DATE COMPLETED: January 21, 1991
INSTALLED BY: Layne Western Company
INSPECTED BY: J. Stewart/ W. Wright

LOCATION: Springfield, MO
CASING (RISER) ID: 2"
SCREEN LENGTH: 5'
SCREEN SLOT SIZE: 0.01"

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-1

Date: January 25, 1991

Total Well Depth: 30.00 feet from T.O.C.

3 Well Volumes: 7.49 gallons

Depth to Water: 14.69 feet from T.O.C.

Purging Initiated: 7:01 pm

Water Column: 15.31 feet

Purging Completed: 7:20 pm

Well Diameter: 2 inches

Total Gallons Purged: 8

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
7:05pm	1.0	10.5		1060	Clear, no odor
7:14	5.0	11.9		980	Cloudy, rusty brown
7:20	8.0	11.4		955	Cloudy, rusty brown
7:25					Sampled
			* pH probe not working		

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-2

Date: January 25, 1991

Total Well Depth: 12.00 feet from T.O.C.

3 Well Volumes: 3.00 gallons

Depth to Water: 5.87 feet from T.O.C.

Purging Initiated: 12:32 pm

Water Column: 6.13 feet

Purging Completed: 12:45 pm

Well Diameter: 2 inches

Total Gallons Purged: 2.6

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
12:34	1.0	8.4	-	1200	Clear
12:40	2.3	10.6	-	1220	Clear
12:55	2.6	-	-	-	Well bailed to dryness
6:27					Sampled
			* pH probe not working		

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-3

Date: January 25, 1991

Total Well Depth: 20.00 feet from T.O.C.

3 Well Volumes: 7.98 gallons

Depth to Water: 3.71 feet from T.O.C.

Purging Initiated: 2:25 pm

Water Column: 16.29 feet

Purging Completed: 2:44 pm

Well Diameter: 2 inches

Total Gallons Purged: 8

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
2:27	2.0	10.3	5.50	8750	Cloudy, orange
2:35	4.0	12.9	4.89	12400	Cloudy, orange
2:40	6.0	12.9	4.81	14000	Cloudy, orange
2:44	8.0	13.1	4.84	14200	Cloudy, orange
2:56					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-4

Date: January 25, 1991

Total Well Depth: 25.00 feet from T.O.C.

3 Well Volumes: 10.10 gallons

Depth to Water: 4.38 feet from T.O.C.

Purging Initiated: 1:15 pm

Water Column: 20.62 feet

Purging Completed: 1:55 pm

Well Diameter: 2 inches

Total Gallons Purged: 10.5

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
1:15	1.0	9.0	7.40	1400	Clear
1:30	3.0	13.0	6.90	1420	Cloudy, gray/brown
1:40	6.0	13.0	6.61	1360	Cloudy, gray/brown
1:50	9.0	13.5	6.46	1325	Cloudy, gray/brown
1:55	10.5	13.0	6.41	1300	Cloudy, gray/brown
2:00					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-5

Date: January 26, 1991

Total Well Depth: 40.00 feet from T.O.C.

3 Well Volumes: 16.17 gallons

Depth to Water: 7.14 feet from T.O.C.

Purging Initiated: 8:41 am

Water Column: 32.86 feet

Purging Completed: 9:16 am

Well Diameter: 2 inches

Total Gallons Purged: 17

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
8:45	2.5	7.0	7.10	4500	Clear
8:53	6.0	8.4	7.11	5400	Cloudy, rusty brown
9:00	10.0	8.1	7.12	7000	Cloudy, rusty brown
9:11	15.0	7.5	7.40	6750	Less cloudy, rusty brown
9:16	17.0	8.6	7.08	7600	Slightly cloudy, rusty brown
9:18					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-6

Date: January 26, 1991

Total Well Depth: 11.50 feet from T.O.C.

3 Well Volumes: 3.53 gallons

Depth to Water: 4.30 feet from T.O.C.

Purging Initiated: 8:00 am

Water Column: 7.20 feet

Purging Completed: 8:16 am

Well Diameter: 2 inches

Total Gallons Purged: 4

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
8:06	1.0	5.0	6.52	4600	Cloudy, orange
8:09	3.0	5.0	6.63	5250	Cloudy, orange
8:12	4.0	5.3	6.64	5400	Cloudy, orange
8:16					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-7

Date: January 25 - 26, 1991

Total Well Depth: 25.00 feet from T.O.C.

3 Well Volumes: 8.74 gallons

Depth to Water: 7.12 feet from T.O.C.

Purging Initiated: 11:37 am

Water Column: 17.88 feet

Purging Completed: 10:02 am

Well Diameter: 2 inches

Total Gallons Purged: 10.1

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
11:37	1.0	6.5		3550	Clear
11:47	5.0	9.7		3900	Slightly cloudy, rusty
11:59	7.0	7.6		3800	Cloudy, tan brown, well dry
1/26/91			* pH probe not working		
9:55	2.9				Clear; pungent chemical odor
10:02					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-8

Date: January 25, 1991

Total Well Depth: 13.81 feet from T.O.C.

3 Well Volumes: 3.81 gallons

Depth to Water: 6.02 feet from T.O.C.

Purging Initiated: 8:21 am

Water Column: 7.79 feet

Purging Completed: 8:54 am

Well Diameter: 2 inches

Total Gallons Purged: 20

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
8:25	2.0	5.8		865	Cloudy, milky brown w/sediment
8:32	5.0	7.5		890	Cloudy, milky brown w/sediment
8:38	10.0	8.1	6.90	870	Cloudy, milky brown w/sediment
8:46	15.0	7.7		860	Cloudy, milky brown w/sediment
8:54	20.0	8.6		860	Cloudy, milky brown w/sediment
8:59					Sampled
			* pH meter not working		

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-9

Date: January 25 - 26, 1991

Total Well Depth: 24.50 feet from T.O.C.

3 Well Volumes: 10.00 gallons

Depth to Water: 4.04 feet from T.O.C.

Purging Initiated: 9:29 am

Water Column: 20.46 feet

Purging Completed: 9:40 am (1/26/91)

Well Diameter: 2 inches

Total Gallons Purged: 11.0

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
9:31	1.0	9.1	7.21	450	Clear
9:46	5.0	10.1	7.03	260	Cloudy, orange brown
10:30	7.5	9.4	7.03	350	Cloudy, orange brown
11:15	7.7				Well bailed dry; low recovery
1/26/91					
9:40	3.3				Clear
9:50					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-10

Date: January 25, 1991

Total Well Depth: 24.00 feet from T.O.C.

3 Well Volumes: 8.07 gallons

Depth to Water: 7.52 feet from T.O.C.

Purging Initiated: 5:12 pm

Water Column: 16.48 feet

Purging Completed: 5:56 pm

Well Diameter: 2 inches

Total Gallons Purged: 20

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
5:14	1.0	8.3	6.95	1270	Clear
5:20	5.0	10.6	6.85	1275	Cloudy, brown
5:34	10.0	10.2	6.75	1230	Cloudy, brown
5:43	15.0	9.9	6.73	1200	Cloudy, brown
5:56	20.0	9.9	6.71	1175	Cloudy, brown
6:00					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-11

Date: January 25, 1991

Total Well Depth: 17.58 feet from T.O.C.

3 Well Volumes: 7.13 gallons

Depth to Water: 3.00 feet from T.O.C.

Purging Initiated: 3:20 pm

Water Column: 14.58 feet

Purging Completed: 3:57 pm

Well Diameter: 2 inches

Total Gallons Purged: 20

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
3:26	1.0	9.5	6.30	1880	Cloudy, milky brown w/sediment
3:34	7.0	12.0	6.15	1740	Cloudy, milky brown
3:40	10.0	13.0	6.04	1680	Cloudy, milky brown
3:50	16.0	12.6	6.44	1660	Cloudy, milky brown
3:57	20.0	13.0	6.04	1660	Cloudy, milky brown
4:04					Sampled

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-12

Date: January 24, 1991

Total Well Depth: 17.67 feet from T.O.C.

3 Well Volumes: 6.51 gallons

Depth to Water: 4.32 feet from T.O.C.

Purging Initiated: 11:30 am

Water Column: 13.35 feet

Purging Completed: 12:30 pm

Well Diameter: 2 inches

Total Gallons Purged: 30

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
11:31	1.0	4.9	7.03	845	Rusty, no odor
11:37	5.0	6.7	*	855	Brown with sediment
11:53	10.0	7.0	*	795	Brown with sediment
12:01	15.0	8.5	*	810	Cloudy, brown
12:10	20.0	8.2	*	750	Cloudy, brown
12:19	25.0	8.5	*	810	Cloudy, brown
12:30	30.0	8.1	*	800	Cloudy, brown
12:35					Sampled
			* pH probe not working		

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-13

Date: January 24, 1991

Total Well Depth: 23.50 feet from T.O.C.

3 Well Volumes: 6.06 gallons

Depth to Water: 11.12 feet from T.O.C.

Purging Initiated: 4:07 pm

Water Column: 12.38 feet

Purging Completed: 4:48 pm

Well Diameter: 2 inches

Total Gallons Purged: 20

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
4:15	1.0	11.0		350	Rusty color, no odor
4:18	5.0	11.8		360	Cloudy, milky brown
4:26	10.0	12.0		350	Cloudy, milky brown
4:36	15.0	11.5		355	Cloudy, milky brown
4:48	20.0	11.5		355	Cloudy, milky brown
4:50					Sampled
			* pH probe not working		

SCS ENGINEERS
WELL SAMPLING LOG

Job Name: Litton ACD

Job Number: 0290008.01

Well Number: MW-14

Date: January 24, 1991

Total Well Depth: 14.03 feet from T.O.C.

3 Well Volumes: 5.48 gallons

Depth to Water: 3.75 feet from T.O.C.

Purging Initiated: 5:19 pm

Water Column: 10.28 feet

Purging Completed: 5:53 pm

Well Diameter: 2 inches

Total Gallons Purged: 20

Time	Volume Purged (gallons)	Temperature (Degrees C)	pH *	Specific Conductance (u ohms)	Comments (water color,odor,pump used, sediment,cloudy,etc.)
5:21	1.0	5.0		675	Clear, no odor
5:26	5.0	6.9		6.75	Muddy, brown
5:35	10.0	6.6		710	Cloudy, brown
5:42	15.0	7.6		720	Cloudy, brown
5:53	20.0	7.1		720	Cloudy, brown
5:56					Sampled
			* pH probe not working		

CHAIN OF CUSTODY RECORD

SGS ANALYTICAL LABORATORY

PERSONNEL

Name (signature): Jeffrey D Stewart
Name (print): Jeff Stewart
Company: SCS Engineers
Address: 11260 Roger Bacon Dr.
City, State, Zip: Reston, VA 22090
Telephone: (703) 471-6150

SITE INFORMATION

Job Name: Litton ACD
Job Number: 02 90008.01
Sample Location: Litton ACD - Springfield
P.O. Number:

Relinquished by (Signature)	Received by (Signature)	Date	Time
Warren Wright	D. Samuel / ABX	1/26/91	10:50 am
Relinquished by (Signature)	Received by (Signature)	Date	Time
	Stanley Stokel	1-29-91	11:50 am

Analysis laboratory should complete "sample cond. upon receipt" section below, sign, and return copy to Shipper

Sample Number	Sample Type	No. of Cont.	Site Identification	Date Sampled	Analysis Requested	Sample Cond. Upon Receipt
MW-9	Water	4	Litton ACD - Springfield	1/24/91	EPA 601, 602, and Cu, Ni, Zn	Cold
MW-10	↓	↓	↓	1/25/91	↓	↓
MW-11	↓	↓	↓	1/25/91	↓	↓
MW-12	↓	↓	↓	1/24/91	↓	↓
MW-13	↓	↓	↓	1/24/91	↓	↓
MW-14	↓	↓	↓	1/24/91	↓	↓

Remarks: Filter Metals sample (Cu, Ni, Zn) before analyzing.