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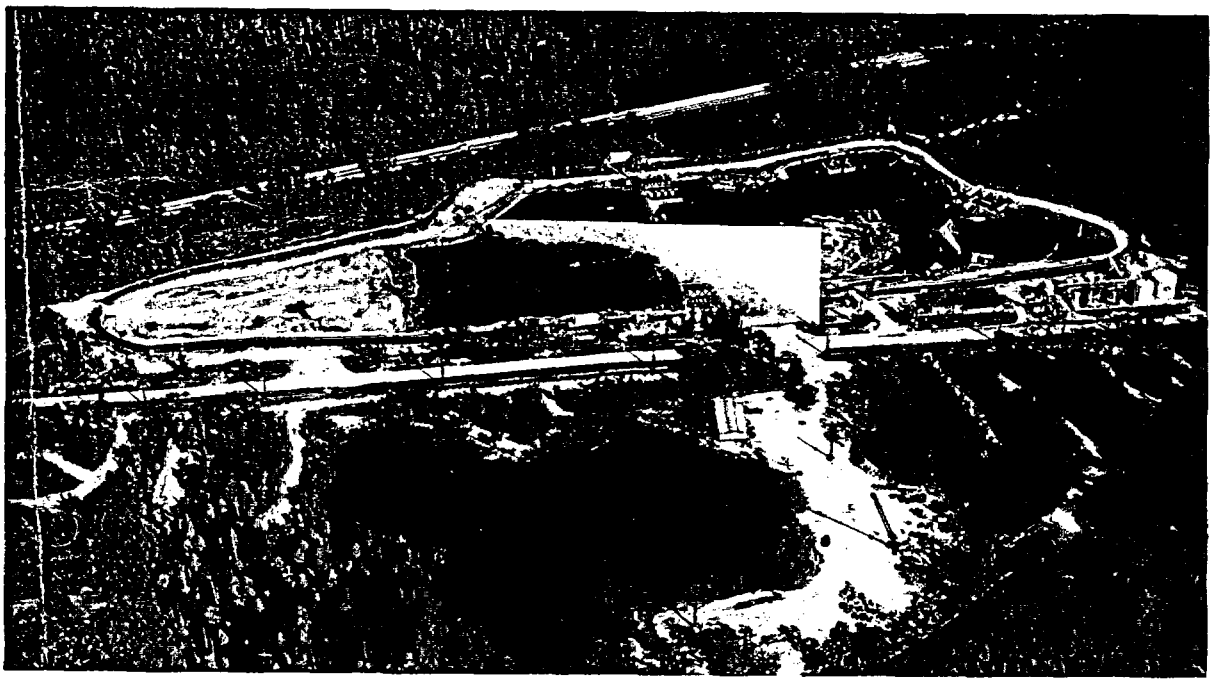
REDACTED VERSION

French Ltd. Project

FLTG, Inc.
Crosby, Texas

MONTHLY PROGRESS REPORT



Submitted to:

U.S. Environmental Protection Agency - Region 6
and
Texas Natural Resource Conservation Commission

November, 1995

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7B Corrective Action Letter, Personnel Air Monitoring Program QC Issues

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Appendix A - None
Appendix B - None
Appendix C - Analytical Results -

Samples Dated November, 1995

Project I.D.	Date Received	Project I.D.	Date Received
M03A0359	11/09/95	M04B0077	11/28/95
M03A0360	11/17/95	M04B0078	11/28/95
M04B0074	11/27/95	M06C0033	11/28/95
M04B0075	11/27/95	M04B0079	11/29/95
M04B0076	11/27/95	M04B0080	11/29/95
M03A0361	11/28/95	M01D0062	11/30/95

1.0 INTRODUCTION

This report covers the activities of FLTG, Inc. and the French Limited Project for November, 1995. FLTG, Inc. manages the project for the French Limited Task Group of Potentially Responsible Parties.

During November, 1995, the project team focused on the following activities and issues:

- Health, Safety, and Quality.
- Safety awareness.
- Safety on multiple job assignments.
- HAZOP of daily work assignments.
- Detecting and correcting work place hazards.
- Operation and maintenance of the aquifer in-situ bioremediation system.
- Natural attenuation modeling.
- Water treatment plant operation and maintenance.
- Site closure report.
- Operation of the data base management system.
- Dismantling and salvage of shut-down systems.
- Wetlands project maintenance.
- This report includes:
    - A summary of November activities, issues, and progress.

- Lagoon area activities.
- Groundwater and Subsoil Remediation activities, issues, and progress.
- Groundwater Treatment Plant activities and issues.
- Ambient Air Management.
- QA/QC status and data.
- Site management activities and issues.
- Wetlands maintenance.

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2.0 SUMMARY

2.1 Summary of Activities and Progress

2.1.1 Health and Safety

Emphasized the safety issues associated with multiple job assignments, limited support personnel, and dismantling systems; emphasized the need to be flexible and responsive to personal limitations and to changing job conditions; reviewed potential distractions and the impact on safety awareness.

No personal injury or equipment damage incidents.

All site workers earned the November safety bonus.

Conducted safety meetings and job inspections at the start of each shift; reviewed safety issues before starting all jobs.

All employees and contractors attended daily safety meetings.

Conducted daily mini-HAZOP of all specific jobs.

Supervision made 139 specific on-the-job safety contacts.

Emphasized the need to respond to changing weather.

Inspected and certified all fire extinguishers.

Emphasized the hazards and precautions associated with working around moving equipment.

Conducted 22 specific health and safety inspections.

Logged all safety issues each shift; less than 24-hour response to all safety issues.

The daily raffle ticket safety awareness program has been effective in maintaining daily safety awareness among all site personnel and contractors.

2.1.2 Quality/QAQC/Data Base Management

The total quality process was used. The status of the goals is shown on Table 2-2.

All quality goals were met.

Raw data is being validated as per the plan.

The data base management system operated with no problems or delays.

There were no data or reports rejected due to errors.

Reviewed ambient air QAQC issues with AATS; developed response action plan.

2.1.3 Lagoon

Maintained a high level of biological activity in Cell D; OUR and HMB were high. Added O_2 to Cell D using a downdraft aerator for nine days.

Waiting delivery of cottonwood trees for the perimeter road area inside the lagoon.

Applied East Slough surface water to Cell E and F vegetation during dry periods.

Tested floodwall gate closure.

2.1.4 Ambient Air Management

Ambient air quality was manually checked daily with portable TVOC analyzers, and no response action was required.

Air quality was continuously monitored in all potential exposure areas and on all special jobs.

Time-integrated samples were collected in three work areas; the samples were sent to Keystone until the ambient air issues at AATS are resolved.

2.1.5 Aquifer Remediation

Monitored status of DNAPL plumes.

Continued routine S1 oxygen injection in target areas.

Continued INT oxygen and nutrient injection in target areas.

Completed installation of one new INT injection wells in the southwest area.

Converted two INT wells to alternative functions.

Issued weekly well status and performance reports.

Inspected and adjusted all wells each day.

Continued daily maintenance of recovery and injection wells.

Completed monthly well measurements and sampling; TOC levels continue to decrease; DO and nitrate levels continue to increase.

Maintained O_2 content of injection water at about 40-45 ppm.

Monthly sampling indicated no rebound and indicated favorable gradient control; monthly sampling indicated that several well conversions and the installation of one new injection well were effective in accelerating remediation in target areas. Modeling of monthly sampling results also indicated that compliance criteria will be met by natural flushing 10 years after active aquifer remediation is shut down on December 15, 1995.

Developed well system shut-down plan.

Started dosing injection wells with Na_2HPO_4 to accelerate the start of natural attenuation.

2.1.6 Groundwater Treatment

None of the treated water required carbon treatment to maintain effluent criteria.

There was no downtime.

The water treatment plant effluent data is shown in Table 2-3. All effluent samples met criteria.

TOC input to T-101 continued to decrease.

The process operators collected all the process water and ground water samples.

The non-toxic, non-biodegradable TOC is generally about 50% of the total TOC.

Started treatment of Cell D water at the rate of about 40 gpm.

2.1.7 Wetlands Restoration

Inspected site twice per week to evaluate vegetation growth and maintenance requirements.

Reviewed status, progress, and issues with the TNRCC and other agencies.

Repaired and secured the main access gate.

2.1.8 Site Management and Issues

Used the on-site laboratory to process all the operational control samples.

Reviewed site progress and issues in detail with EPA and TNRCC on a regular basis.

Validated all analytical data as per the QAQC plan.

Reviewed project status and issues each day to ensure focus on critical issues - safety, quality, cost, target area progress, and site closure planning.

Reviewed progress on issues and action plans each week.

Reduced aquifer remediation operational and maintenance requirements.

Reduced technical support MH's.

Reduced administrative MH's.

Continued agency oversight cost discussions with EPA.

Submitted revised long-term monitoring well list for agency review and approval.

Submitted the site closure plan.

Shipped the dredges and work boat.

Continued dismantling and salvage of shut-down equipment.

TABLE 2-1

Ambient Air Management
Time Integrated Exposure Data

Compound	PEL 8 hour PPM	1 16-Nov-95 WTP Op (E.O.) % of PEL	PPM	2 16-Nov-95 Well Op. (J.V.) % of PEL	PPM
Chloromethane	50	0.000	0.000	0.000	0.000
Bromomethane	5	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.171	0.086	0.084	0.042
Acetone	750	0.104	0.776	0.104	0.780
Carbon disulfide	10	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.000	0.000
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.000	0.000	0.000
Chloroform	10	0.029	0.003	0.005	0.001
1,2-Dichloroethane	10	0.000	0.000	0.000	0.000
2-Butanone	200	0.001	0.002	0.001	0.002
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.013	0.001	0.000	0.000
Vinyl acetate	10	0.000	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000
Benzene	1	0.903	0.009	0.518	0.005
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.000	0.000	0.004	0.002
2-Hexanone	5	0.000	0.000	0.000	0.000
Tetrachloroethene	50	0.001	0.000	0.007	0.004
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.000	0.000
Toluene	100	0.022	0.022	0.007	0.007
Chlorobenzene	10	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.006	0.006	0.002	0.002
Styrene	50	0.000	0.000	0.000	0.000
Xylene (total)	100	0.015	0.015	0.004	0.004
Hexane			0.038		0.017

TABLE 2-2

Project Quality

Status as of 11/30/95		Goals
Yes	1)	No OSHA recordable injuries.
Attention	2)	100% compliance with all safety rules and procedures.
Yes	3)	No citations for violations of applicable, relevant and appropriate regulations.
Yes	4)	100% attendance (including contractors) at daily safety meetings.
Attention	5)	Less than 24-hour response time on health and safety issues.
Yes	6)	100% sign-in and security clearance.
Yes	7)	No invalidation of reported data due to QA/QC issues.
	8)	Spend less than:

			MH/Month
Yes	•	Direct hire	1,200
Yes	•	FLTG management	600
Yes/Attention	•	Technical support	100
Yes/Attention	•	Maintenance support	80

Yes	9)	Pump at least 90 gpm; inject at least 60 gpm.
Yes	10)	Remediate shallow alluvial zone aquifer in 60 months.
Yes	11)	Hold analytical cost to less than $12,000 per month (1994 only).
Yes	12)	No unscheduled overtime (per day or per week).
Yes	13)	No agency contacts which require 3rd party resolution.
Yes	14)	Documented training of site personnel for all work assignments.
Yes	15)	Monthly audit of actual performance versus goals.

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TABLE 2-3
Treated Water Results Summary

Collected	Set No.	pH		TSS		TOC		O&G		Benzene		Chlor HC's		Total PCBs		Napthalene	
		(6-9)		5 PPM		55 PPM		15 PPM		150 PPB		500 PPB		0.65 PPB		300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-May-95	M03A0330	7.63		1.		12.1		2.5		2.5		177.		.16		5.	
4-May-95	M03A0331	7.91		4.		12.5		2.5		2.5		222.		.16		5.	
8-May-95	M03A0332	7.95		4.		11.3		2.5		2.5		228.		.16		5.	
11-May-95	M03A0334	7.97		4.		10.9		2.5		2.5		235.		.16		5.	
15-May-95	M03A0333	7.87		8.		13.7		2.5		2.5		209.		.16		5.	
18-May-95	M03A0335	7.73		6.		11.		2.5		6.		374.		.16		5.	
22-May-95	M03A0336	7.88		1.		31.		2.5		6.		274.		.16		5.	
28-May-95	M03A0337	7.76		1.		45.		2.5		6.		227.		.16		5.	
5-Jun-95	M03A0338	7.53	7.8	.5	3.3	12.1	17.7	2.5	2.5	2.5	3.7	189.	237	.16	.16	5.	5.
12-Jun-95	M03A0339	7.78	7.8	1.	3.3	45.8	21.5	2.5	2.5	2.5	3.7	188.	238	.16	.16	5.	5.
19-Jun-95	M03A0440	7.68	7.8	5.	3.4	7.	20.9	2.5	2.5	2.5	3.7	144.	230	.16	.16	5.	5.
26-Jun-95	M03A0441	7.71	7.8	1.	3.1	9.1	20.6	2.5	2.5	2.5	3.7	128.	219	.16	.16	5.	5.
2-Jul-95	M03A0442	7.47	7.7	.5	2.7	6.7	20.2	2.5	2.5	2.5	3.7	180.	213	.16	.16	5.	5.
10-Jul-95	M03A0343	7.76	7.7	5.	2.3	5.2	19.2	2.5	2.5	2.5	3.7	182.	210	.16	.16	5.	5.
17-Jul-95	M03A0344	7.75	7.7	3.	2.	7.6	18.8	2.5	2.5	2.5	3.3	181.	188	.16	.16	5.	5.
24-Jul-95	M03A0345	7.55	7.7	.5	1.9	8.2	16.3	2.5	2.5	5.	3.2	479.	211	.16	.16	5.	5.
31-Jul-95	M03A0346	7.64	7.7	.5	1.9	2.5	11.6	7.8	3.1	5.	3.1	380.	228	.16	.16	5.	5.
7-Aug-95	M03A0347	7.55	7.7	2.	2.1	6.4	10.9	2.5	3.1	5.	3.3	536.	266	.16	.16	5.	5.
14-Aug-95	M03A0348	7.6	7.6	2.	2.2	7.3	6.7	2.5	3.1	5.	3.6	289.	278	.16	.16	5.	5.
21-Aug-95	M03A0349	7.55	7.6	1.	1.7	7.6	6.7	2.5	3.1	5.	3.9	261.	291	.16	.16	5.	5.
28-Aug-95	M03A0350	7.67	7.6	1.	1.7	8.7	6.7	2.5	3.1	5.	4.2	223.	301	.16	.16	5.	5.
4-Sep-95	M03A0351	7.7	7.6	1.	1.8	9.	6.9	2.5	3.1	5.	4.4	317.	316	.16	.16	5.	5.
11-Sep-95	M03A0352	7.54	7.6	1.	1.3	10.4	7.5	2.5	3.1	2.5	4.4	137.	311	.16	.16	5.	5.
18-Sep-95	M03A0353	7.74	7.6	1.	1.1	11.	7.9	2.5	3.1	2.5	4.4	180.	311	.32	.18	5.	5
25-Sep-95	M03A0354	7.57	7.6	3.	1.4	13.7	8.5	2.5	3.1	2.5	4.2	148.	275	.32	.20	5.	5
2-Oct-95	M03A0355	8.09	7.7	5.	1.9	9.5	9.3	2.5	2.5	2.5	3.9	109.	244	.32	.21	5.	5
9-Oct-95	M03A0356	8.26	7.7	3.	2.0	9.3	9.6	.5	2.3	2.5	3.6	170.	204	.32	.23	5.	5
16-Oct-95	M03A0357	8.06	7.8	1.	1.9	7.6	9.6	2.5	2.3	5.	3.6	332.	209	.32	.25	5.	5
23-Oct-95	M03A0358	8.23	7.9	1.	1.9	7.8	9.7	.5	2.1	2.5	3.3	79.	188	.32	.27	5.	5
30-Oct-95	M03A0359	8.23	7.9	3.	2.1	12.6	10.1	.5	1.8	2.5	3.1	167.	182	.32	.28	5.	5
6-Nov-95	M03A0360	8.06	8.0	1.	2.1	13.	10.5	2.5	1.8	2.5	2.8	143.	163	.32	.30	5.	5
13-Nov-95	M03A0361	7.95	8.0	1.	2.1	10.9	10.6	2.5	1.8	2.5	2.8	187.	168	.32	.32	5.	5
20-Nov-95	M03A0362	8.1	8.1	.5	2.1	9.5	10.4	.5	1.6	2.5	2.8	236.	175	.32	.32	5.	5
27-Nov-95	M03A0363	8.16	8	4.	2.2	7.7	9.8	.5	1.4	2.5	2.8	114.	171	.32	.32	5.	5

Chlorinated hydrocarbons value is the sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

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TABLE 2-3 (Continued)
Treated Water Results Summary

Collected	Set No.	As		Ba		Cd		Cr		Cu		Pb		Mn		Hg		Ni		Se		Ag		Zn	
		150 PPB		1000 PPB		50 PPB		500 PPB		15 PPB		66 PPB		300 PPB		1 PPB		148 PPB		20 PPB		5 PPB		162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-May-95	M03A0330	16.8		106.		1.1		.7		.7		.5		6.8		.1		8.5		.8		.5		.2	
4-May-95	M03A0331	21.		149.		1.1		5.9		1.		.5		70.4		.1		7.6		.8		.5		16.2	
8-May-95	M03A0332	16.		126.		.1		1.		1.6		.5		6.		.1		5.		1.3		.2		4.	
11-May-95	M03A0334	17.		158.		.1		3.		.9		.5		22.		.1		6.		1.3		.2		5.	
15-May-95	M03A0333	17.		141.		.1		2.		1.		.5		21.		.1		5.		1.3		.2		4.	
18-May-95	M03A0335	18.		122.		.1		.2		.3		.5		4.		.1		3.		1.3		.2		1.5	
22-May-95	M03A0336	14.		130.		.1		1.		.5		.5		9.		.1		5.		1.3		.2		7.	
29-May-95	M03A0337	16.		176.		.1		2.		.3		.5		27.		.1		1.		2.8		.2		4.	
5-Jun-95	M03A0338	12.	16.4	191.	144	.1	.3	2.	2.	1.	.8	.5	.5	18.	20.5	.1	.1	4.	5.	1.3	1.3	.2	.2	5.	5.2
12-Jun-95	M03A0339	13.	16.	204.	155	.1	.2	1.	2.	1.	.8	.5	.5	2.5	20.	.1	.1	4.5	4.6	1.3	1.4	.2	.2	3.	5.5
19-Jun-95	M03A0340	14.	15.2	213.	162	.1	.1	1.	1.5	.8	.8	.5	.5	6.	12.8	.1	.1	5.	4.3	1.3	1.4	.2	.2	1.5	3.9
26-Jun-95	M03A0341	15.	15.1	155.	166	.1	.1	.7	1.4	.7	.7	4.	.9	2.	12.4	.1	.1	4.	4.2	1.3	1.4	.2	.2	6.	4.1
2-Jul-95	M03A0342	17.	15.1	122.	162	.1	.1	1.5	1.3	.5	.7	1.	.9	10.	11.1	.1	.1	5.	4.1	1.5	1.4	.2	.2	6.	4.2
10-Jul-95	M03A0343	13.	14.7	173.	165	.2	.1	.7	1.1	.9	.7	.5	.9	2.	8.9	.1	.1	5.	4.1	1.2	1.4	.2	.2	5.	4.3
17-Jul-95	M03A0344	13.	14.1	172.	171	.1	.1	.9	1.2	1.	.7	.5	.9	2.5	8.8	.1	.1	4.8	4.3	1.2	1.4	.2	.2	2.9	4.5
24-Jul-95	M03A0345	18.	14.6	175.	176	.1	.1	.7	1.2	.9	.8	.5	.9	1.3	7.9	.1	.1	6.6	4.4	1.2	1.4	.2	.2	5.5	4.3
31-Jul-95	M03A0346	12.	14.1	193.	178	.1	.1	.9	1.	.9	.8	2.8	1.2	5.2	5.5	.1	.1	4.6	4.8	1.1	1.2	.2	.2	3.7	4.3
7-Aug-95	M03A0347	17.	14.7	204.	179.	1.	.2	1.5	1.	.9	.8	.5	1.2	6.6	4.2	.1	.1	5.1	5.	1.2	1.2	.2	.2	7.8	4.6
14-Aug-95	M03A0348	15.	14.9	202.	179	.1	.2	.2	.9	.9	.8	.5	1.2	5.3	4.5	.1	.1	2.8	4.8	1.2	1.2	.2	.2	6.8	5.
21-Aug-95	M03A0349	13.	14.8	190.	176.	.1	.2	.2	.8	.9	.8	.5	1.2	1.3	4.	.1	.1	4.	4.7	1.2	1.2	.2	.2	.5	4.9
28-Aug-95	M03A0350	12.	14.4	204.	182	.1	.2	.9	.8	.9	.8	.5	.8	4.4	4.3	.1	.1	3.7	4.6	1.2	1.2	.2	.2	3.3	4.6
4-Sep-95	M03A0351	12.	13.9	209.	191	.1	.2	1.3	.8	2.3	1.	.5	.8	6.4	3.9	.1	.1	5.1	4.6	1.2	1.1	.2	.2	12.	5.3
11-Sep-95	M03A0352	24.	15.1	162.	190	.1	.2	.2	.7	.9	1.	.5	.8	3.7	4.1	.1	.1	3.8	4.5	1.2	1.1	.2	.2	8.8	5.7
18-Sep-95	M03A0353	19.	15.8	165.	189	.1	.2	.6	.7	.9	1.	.5	.8	2.6	4.1	.1	.1	4.	4.4	1.2	1.1	.2	.2	2.9	5.7
25-Sep-95	M03A0354	25.	16.6	145.	186.	1.	.3	1.5	.8	1.7	1.1	.5	.8	5.5	4.6	.1	.1	5.1	4.2	1.2	1.1	.2	.2	11.3	6.3
2-Oct-95	M03A0355	20.	17.4	168.	183	.1	.3	2.1	.9	9.1	2.	.5	.5	7.5	4.8	.1	.1	10.2	4.9	1.2	1.2	.2	.2	4.8	6.5
9-Oct-95	M03A0356	16.	17.3	151.	177	.3	.2	1.2	.9	1.2	2.1	.5	.5	2.5	4.4	.1	.1	3.7	4.7	.9	1.1	.6	.2	1.2	5.7
16-Oct-95	M03A0357	16.	17.4	188.	176	.2	.2	.2	.9	.6	2.	.5	.5	3.	4.1	.1	.1	2.	4.6	2.	1.2	.5	.2	10.	6.1
23-Oct-95	M03A0358	15.	17.7	188.	176	.2	.2	.2	.9	1.2	2.1	.5	.5	5.	4.5	.1	.1	1.	4.3	1.	1.2	.3	.2	3.5	6.4
30-Oct-95	M03A0359	14.6	18.	187.	174	.2	.2	2.	1.	.6	2.	.5	.5	25.	6.8	.1	.1	4.	4.3	.8	1.2	.3	.3	2.5	6.3
6-Nov-95	M03A0360	13.	18.1	204.	173	.2	.2	2.	1.1	.6	1.9	.5	.5	34.	9.9	.1	.1	4.	4.2	.8	1.1	.3	.3	3.	5.3
13-Nov-95	M03A0361	17.	17.3	183.	175	.2	.3	.2	1.1	.6	1.8	.5	.5	6.	10.1	.1	.1	1.	3.9	3.	1.3	.3	.3	7.	5.1
20-Nov-95	M03A0362	13.	16.6	219.	181	.2	.3	.2	1.1	1.3	1.9	.5	.5	18.	11.8	.1	.1	4.	3.9	4.	1.6	.3	.3	5.	5.4
27-Nov-95	M03A0363	11.	15.1	224.	190	.1	.2	1.6	1.1	2.6	2.	.5	.5	24.	13.9	.1	.1	4.	3.8	3.6	1.9	.3	.3	8.6	5.1

Metals values in PPB.

2.2 Problem Areas and Recommended Solutions

Problem	Solution
Maintain high level of safety awareness.	Daily raffle ticket program. Daily safety meetings. Safety meeting participation. Training. Regular HAZOP's. Regular on-the-job contacts.
On-the-Job safety attention.	Review job details as work proceeds. Stop and challenge approach. Constant emphasis and reminders. Frequent supervisory contact.
Hazard detection and response.	Safety inspections. HAZOP's on all jobs. Constant awareness and follow-up. Sensitive to changing conditions.
Wetlands Maintenance	Implement 5-year maintenance plan.
Increase circulation in specific S1 and INT target areas.	Add new pumping and/or injection wells. Make well conversions to alternative functions. Regular evaluation of status and results.
EPA oversite costs	Negotiate lump sum payment.
Long-term site management.	Refine long-term site management plan.

2.3 Problems Resolved

Problem	Solution
Vegetation water supply in lagoon area	Plant trees along perimeter road inside the lagoon.

Problem	Solution
Ambient Air Results	Completed detailed audit of AATS; switched to Keystone.
Site Closure Report	Submitted draft for review.
Natural attenuation modeling	Complete model runs; issue draft report for review and comment.

2.4 Deliverables Submitted

October, 1995 monthly report
Revised monitoring well list
Draft site closure report

2.5 Upcoming/Ongoing Events and Activities

Daily safety meetings and inspections.

Daily safety awareness program.

Emphasis on the safety aspect of multiple work assignments.

Emphasis on hazard identification and response.

Attention to safety details.

Nutrient dosing in preparation for natural attenuation phase.

Continue focused remediation in S1 and INT target areas.

Daily well pump checks and maintenance.

Aquifer sampling in select areas and zones.

Focused annual aquifer sampling.

Review natural attenuation modeling results with EPA, TNRCC, and CH2M Hill.

Plant cottonwood trees on lagoon perimeter.

Operate Data Base Management System.

Total Quality process.

Minimize carbon usage in Water Treatment Plant.

Treat Cell D water in water treatment plant.

Implement long-term site management plan.

Shut down active aquifer remediation.

Dismantle and salvage remediation systems.

Review lagoon closure plan with EPA, TNRCC, and CH2M Hill.

2.6 Key Staffing Changes

None.

2.7 Percent Complete

Research & Development	- 98%
Facilities	-100%
Slough	-100%
Subsoil Investigation	-100%
Floodwall	-100%
Lagoon Remediation	-100%
Groundwater	- 94%
Lagoon Dewatering/Fixation	-100%
Water Treatment	- 93%
Wetlands	- 98%
Demobilization	- 70%
Monitoring	- 70%

2.8 Schedule

All deliverables are on schedule.

Complete active aquifer remediation by December 15, 1995.

2.9 Operations and Monitoring Data

The operations and monitoring data are submitted as parts of Sections 3.0, 4.0, 5.0, and 6.0 of this report, and the supporting data are stored in secure storage at the French project office.

2.10 Credits Accrued/Applied

Status of Credits

	Accrued this period	Accrued to date	Applied this period	Applied to date	Running total
December 1990	34	34	0	0	34
December 1991	0	100	0	0	100
December 1992	0	101	0	2	99
December 1993	0	104	0	4	100
January 1994	0	104	0	4	100
February 1994	0	104	0	4	100
March 1994	0	104	0	4	100
April 1994	0	104	0	4	100
May 1994	0	104	0	4	100
June 1994	0	104	0	4	100
July 1994	5	109	0	4	105
August 1994	0	109	0	4	105
September 1994	0	109	0	4	105
October 1994	0	109	0	4	105
November 1994	0	109	0	4	105
December 1994	0	109	0	4	105
January 1995	0	109	0	4	105
February 1995	0	109	0	4	105
March 1995	0	109	0	4	105
April 1995	0	109	0	4	105
May 1995	0	109	0	4	105
June 1995	0	109	0	4	105
July 1995	0	109	0	4	105
August 1995	2	111	0	4	107
September 1995	1	112	0	4	108
October 1995	0	112	0	4	108
November 1995	0	112	0	4	108

2.11 Community Relations

Maintained 24-hour, call-in Hot Line.

Conducted three tours for interested parties.

Supported Barrett Chamber of Commerce development project.

Reviewed conceptual site closure plan with community leaders.

Reviewed site closure plan with the local newspaper.

3.0 LAGOON

3.1 Summary of Activities

Operated aerator in Cell D to expedite biomass degradation.

Evaluating various options for gradient control inside the lagoon.

Evaluating several surface water source options for the area inside the migration wall.

Continued dismantling and disposal of scrap piping.

3.2 Problems and Response Action

Problem	Recommended Solution
Ground cover growth slow in Cell E.	Water frequently. Evaluate different grass blends and soil nutrients.
Poor tree growth in Cell E.	Evaluate different types of trees. Relocate trees to perimeter road.

3.3 Problems Resolved

None.

3.4 Deliverables Submitted

None.

3.5 Upcoming Events and Activities

Maintain pH, DO, OUR, and nutrient levels in Cell D.

Operate aerator/mixer in Cell D as required.

Treat Cell D water in water treatment plant.

Backfill Cell D with clean soil.

Water Cell E and Cell F as required, using the east slough surface water.

Maintain vegetation in Cell E.

Plant cottonwood trees along the perimeter road for gradient control.

Dismantle and dispose of surplus pipe.

4.0 GROUNDWATER AND SUBSOIL REMEDIATION

4.1 Summary of Activities

4.1.1 Operation of Production and Injection Well Systems

Operation of the production and injection wells systems during November, 1995, is summarized in Table 4-1. Flows from the production well system are summarized in Table 4-2 and Figure 4-1. Flows into the injection well system are summarized in Table 4-3 and Figure 4-2. Individual well flows are summarized in Table 4-4.

4.1.2 Operational Monitoring

Operational monitoring associated with the groundwater and subsoil remediation system during November, 1995, is summarized in Table 4-5.

4.1.3 Data Management and Evaluation

Operational monitoring data from the groundwater and subsoil remediation system for this reporting period were entered into FLTG's database. Tables and figures for this section of the Monthly Progress Report were generated from this database.

4.2 Problems and Response Actions

Groundwater production and injection rates were at or above the targets of both production and injection wells. The new goal for production well rates is 80 gpm. See Table 4-1. Nutrient and dissolved oxygen concentrations in injection water were at or close to target levels. No specific response action is planned.

TABLE 4-1

Groundwater System Operation - November 1995 *Reporting Period: November 1-30 (30 days)*
Production System
See Well Status Report, Attachment 4A
Groundwater produced: 3.8 M gal; 278.9 M gal since startup based on main meter Total production rate: avg. 78 gpm (target 80 gpm); range 69-109 gpm S1 production rate: avg. 42.4 gpm; avg. 3.9 gpm per metered well INT production rate: avg. 35.6 gpm; avg. 0.8 gpm per metered well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 30 days operation
TOC (non-volatile) concentration avg. 38 ppm; range 28-71 ppm TOC mass removed: 376,155 lb. (374,965 lb. since startup); 39.66 lb./day
Injection System
See Well Status Report, Attachment 4A
Rainfall during period: 2.31 inches
Groundwater injected: 3.4 M gal (178.8 M gal since startup) based on main meters
S1 unit injected: 1.1 M gal (92.0 M gal since startup) INT unit injected: 2.5 M gal (80.5 M gal since startup) Total injection rate: avg. 87.7 gpm (target 80 gpm); range 66-93 gpm S1 injection rate: avg. 30.3 gpm; avg. 3.4 gpm per well INT injection rate: avg. 57.4 gpm; avg. 1.6 gpm per well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 30 days operation
Oxygen added to injection water: 6,245 lb.; 208.2 lb./day used (input efficiency =24%) Avg. DO in injection water: S1, 51.4 ppm; INT, 53.7 ppm (target 40 ppm) ⇒ 50.8 lb./day injected
Volume of 9.1% w/w KNO_3 nutrient solution added to INT unit, and all S1 wells: after 10/5/95 - 7,647 gal Nutrient flow rate: 254.9 gpd, 0.22% of INT + S1 inflow rate (target 0.38%) Calculated injection water NO_3 concentration: 56.4 mg/L-N (target 50 mg/L-N)
Changes in the Aquifer System
Converted INT-133 from pumping to injection; converted INT-60-P-1, -60-P-2 from monitoring to injection

Calculated from main meters:

Average injection rate for November	80.0 from Table 4-3
Average production rate for November	88.0 from Table 4-2

TABLE 4-2

Daily Groundwater Production and TOC Removal
November 1995

Date	Project Day	T-101 Outflow Rate (FQ-101A) (gpd)	T-101 Outflow Rate (gpm)	T-101 Influent Ave. TOC (mg/L)	T-101 Influent TOC Loading (kg/day)
1-Nov	1393	111,200	77	42	18
2-Nov	1394	113,200	79	38	16
3-Nov	1395	112,100	78	36	15
4-Nov	1396	112,800	78	58	25
5-Nov	1397	112,100	78	42	18
6-Nov	1398	110,600	77	40	17
7-Nov	1399	106,400	74	34	14
8-Nov	1400	116,700	81	39	17
9-Nov	1401	113,600	79	39	17
10-Nov	1402	113,100	79	52	22
11-Nov	1403	107,700	75	56	23
12-Nov	1404	106,500	74	33	13
13-Nov	1405	106,600	74	35	14
14-Nov	1406	99,300	69	36	14
15-Nov	1407	139,300	97	32	17
16-Nov	1408	130,800	91	30	15
17-Nov	1409	124,100	86	33	16
18-Nov	1410	134,000	93	29	15
19-Nov	1411	131,700	91	51	25
20-Nov	1412	139,700	97	71	38
21-Nov	1413	144,000	100	39	21
22-Nov	1414	140,000	97	32	17
23-Nov	1415	138,300	96	30	16
24-Nov	1416	139,800	97	28	15
25-Nov	1417	157,500	109	29	17
26-Nov	1418	150,000	104	33	19
27-Nov	1419	141,200	98	30	16
28-Nov	1420	140,500	98	35	19
29-Nov	1421	144,400	100	29	16
30-Nov	1422	143,700	100	32	17
Month Average		126,030	88	38	18
Month Total		3,780,900		1190 lb	540

TABLE 4-3

Daily Injection Flows
November 1995

Date	Project Day	INT South S1 North Injection Wells FQ905		INT North Injection Wells Meter FQ-906		S1 South Injection Wells Meter FQ-909		Total Injection Rate		Oxygen	Nutrients
		(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	lbs	Gallons
1-Nov	1393	52,900	37	66,900	46	0	0	119,800	83	180	278
2-Nov	1394	52,700	37	64,700	45	0	0	117,400	82	220	277
3-Nov	1395	52,200	36	61,500	43	0	0	113,700	79	200	285
4-Nov	1396	51,800	36	75,400	52	0	0	127,200	88	200	304
5-Nov	1397	51,200	36	73,700	51	0	0	124,900	87	200	289
6-Nov	1398	49,700	35	71,200	49	0	0	120,900	84	200	278
7-Nov	1399	49,200	34	70,900	49	0	0	120,100	83	200	270
8-Nov	1400	66,200	46	68,100	47	0	0	134,300	93	220	266
9-Nov	1401	28,500	20	67,200	47	0	0	95,700	66	240	262
10-Nov	1402	48,700	34	72,100	50	0	0	120,800	84	335	201
11-Nov	1403	46,600	32	67,700	47	0	0	114,300	79	200	346
12-Nov	1404	46,300	32	66,900	46	0	0	113,200	79	200	342
13-Nov	1405	46,100	32	66,800	46	0	0	112,900	78	200	293
14-Nov	1406	45,100	31	65,900	46	0	0	111,000	77	200	270
15-Nov	1407	46,500	32	66,500	46	0	0	113,000	78	200	278
16-Nov	1408	47,600	33	70,100	49	0	0	117,700	82	180	296
17-Nov	1409	41,500	29	61,200	43	0	0	102,700	71	400	300
18-Nov	1410	30,700	21	67,300	47	0	0	98,000	68	215	232
19-Nov	1411	30,900	21	69,500	48	0	0	100,400	70	200	353
20-Nov	1412	39,000	27	73,800	51	0	0	112,800	78	200	217
21-Nov	1413	48,100	33	73,900	51	0	0	122,000	85	200	144
22-Nov	1414	45,500	32	72,100	50	0	0	117,600	82	180	248
23-Nov	1415	44,300	31	72,400	50	0	0	116,700	81	100	203
24-Nov	1416	43,300	30	72,700	50	0	0	116,000	81	220	194
25-Nov	1417	42,500	30	72,500	50	0	0	115,000	80	200	294
26-Nov	1418	43,100	30	73,100	51	0	0	116,200	81	200	182
27-Nov	1419	42,800	30	71,700	50	0	0	114,500	80	200	186
28-Nov	1420	43,200	30	72,500	50	0	0	115,700	80	195	190
29-Nov	1421	42,100	29	70,100	49	0	0	112,200	78	300	194
30-Nov	1422	41,500	29	69,600	48	0	0	111,100	77	60	176
Month Average		45,327	31	69,600	48	0	0	114,927	80	208	255
Month Total		1,359,800		2,088,000		0		3,447,800		6,245	7,647

TABLE 4-4

Average Production and Injection Flow Rates - November 1995

Flow rates are averages for the period November 1 - November 30 (30 days)

S1 Production Wells (11)

Well ID	gpm
S1-17	1.3
S1-19	1.0
S1-21	6.7
S1-22	0.7
S1-28	0.0
S1-30	2.0
S1-32	4.3
S1-61	3.8
S1-62	9.5
S1-63	11.8
S1-64	1.3
Total	42.4
Average*	3.9

* of metered wells

S1 Injection Wells (9)

Well ID	gpm
S1-18	1.4
S1-20	3.5
S1-31	3.2
S1-65	4.9
S1-68	4.6
S1-69	4.8
S1-70	2.6
S1-101	1.1
S1-133	4.2
Total	30.3
Average	3.4

Wells S1-18, S1-31 and S1-133 receive oxygen and nutrient amended injection water

Subtotal	8.8

All other S1 wells receive oxygenated injection water only

INT Production Wells (46)

Well ID	gpm
INT-1	0.4
INT-3	0.1
INT-4	0.1
INT-5	1.7
INT-7	0.3
INT-8	1.4
INT-9	0.8
INT-10	2.9
INT-11	0.1
INT-12	0.9
INT-13	0.4
INT-19	0.1
INT-21	0.2
INT-22	0.1
INT-23	0.1
INT-24	0.4
INT-26	0.7
INT-27	1.3
INT-28	0.5
INT-55	0.8
INT-56	0.2
INT-57	0.2
INT-59	0.4
INT-60	2.3
INT-61	0.8
INT-120	0.1
INT-133	0.2
INT-134	1.7
INT-143	0.6
INT-205	1.1
INT-206	0.7
INT-207	0.4
INT-208	2.9
INT-209	0.2
INT-210	1.4
INT-212	1.6
INT-213	1.6
INT-215	2.1
INT-217	1.9
INT-229	0.5
INT-231	0.4
INT-232	0.1
INT-233	0.1
INT-234	0.3
INT-235	0.1
INT-236	0.4
Total	35.6
Average	0.8

INT Injection Wells (37)

Well ID	gpm
INT-2	0.7
INT-20	0.1
INT-060-P1	1.1
INT-060-P2	1.2
INT-63	6.5
INT-64	2.0
INT-72	1.7
INT-73	1.2
INT-74	1.6
INT-75	0.3
INT-76	3.3
INT-77	2.9
INT-78	2.7
INT-79	0.8
INT-80	1.1
INT-81	3.4
INT-97	0.3
INT-98	1.2
INT-111	1.8
INT-113	2.2
INT-140	1.1
INT-203	0.5
INT-204	0.6
INT-216	1.2
INT-218	0.4
INT-219	0.9
INT-220	1.1
INT-221	0.4
INT-222	3.1
INT-223	1.1
INT-224	3.7
INT-225	1.8
INT-226	0.4
INT-227	0.5
INT-239	1.3
INT-240	2.0
INT-241	1.2
Total	57.4
Average	1.6

All INT injection wells receive oxygen- and nutrient-amended injection water

Note: total and average flow rates for S1 and INT units are corrected (per main flow meter readings) for use in Table 4-1.

TABLE 4-5

Operational Monitoring - November 1995

Activity	Frequency	Purpose
Check production and injection wells for pump, meter, and level control operation, injection pressure, and gas buildup.	Daily	Identify and respond to individual well problems; maintain operating efficiency.
Flow meter readings	Weekly	Identify and respond to individual well problems; maintain operating efficiency.
Read groundwater treatment plant inflow and outflow meters; nutrient injection flow meters; oxygen flows, pressure and temperature; and injection header back pressure.	2x daily	Identify and respond to treatment plant problems; control nutrient and injection flow rates.
Measure T-101 influent TOC.	2x daily	Track TOC removal.
Measure dissolved oxygen at 6 representative S1 and INT injection wells.	Weekly	Control oxygen injection.
Conduct water levels DO and TOC on 22 monitoring wells.	Weekly	Define progress of new INT wells and shut-off areas. Track DO breakthru.
Conduct TOC and DO on select production wells.	Weekly	Track TOC and DO levels in critical areas.
Conduct water levels on all monitoring wells.	Monthly	Confirm groundwater is confined within capture zone.

FIGURE 4-1

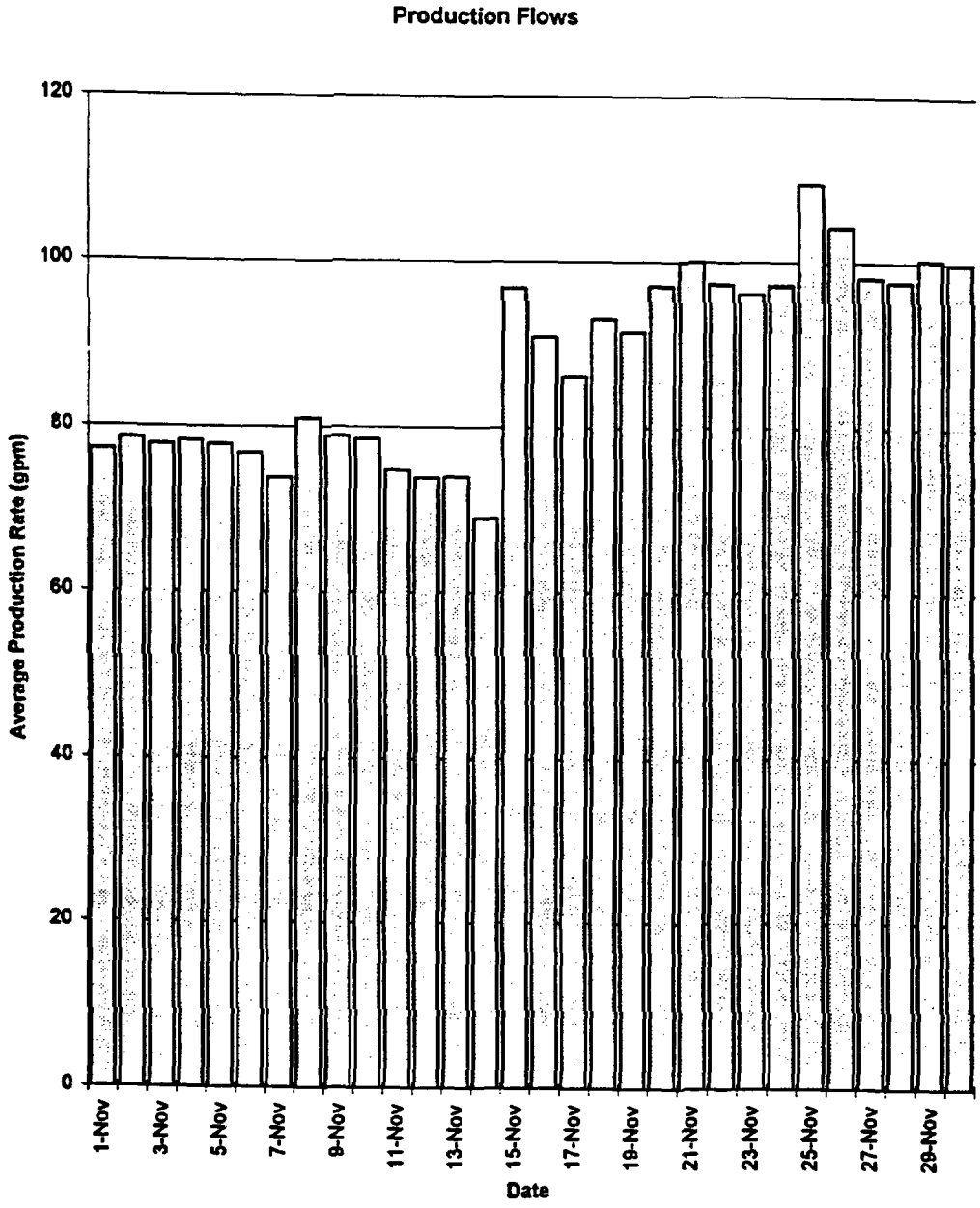
Production Flows
Average Production Rate (gpm)
120
100
80
60
40
20
0
1-Nov
3-Nov
5-Nov
7-Nov
9-Nov
11-Nov
13-Nov
15-Nov
17-Nov
19-Nov
21-Nov
23-Nov
25-Nov
27-Nov
29-Nov
Date

FIGURE 4-2

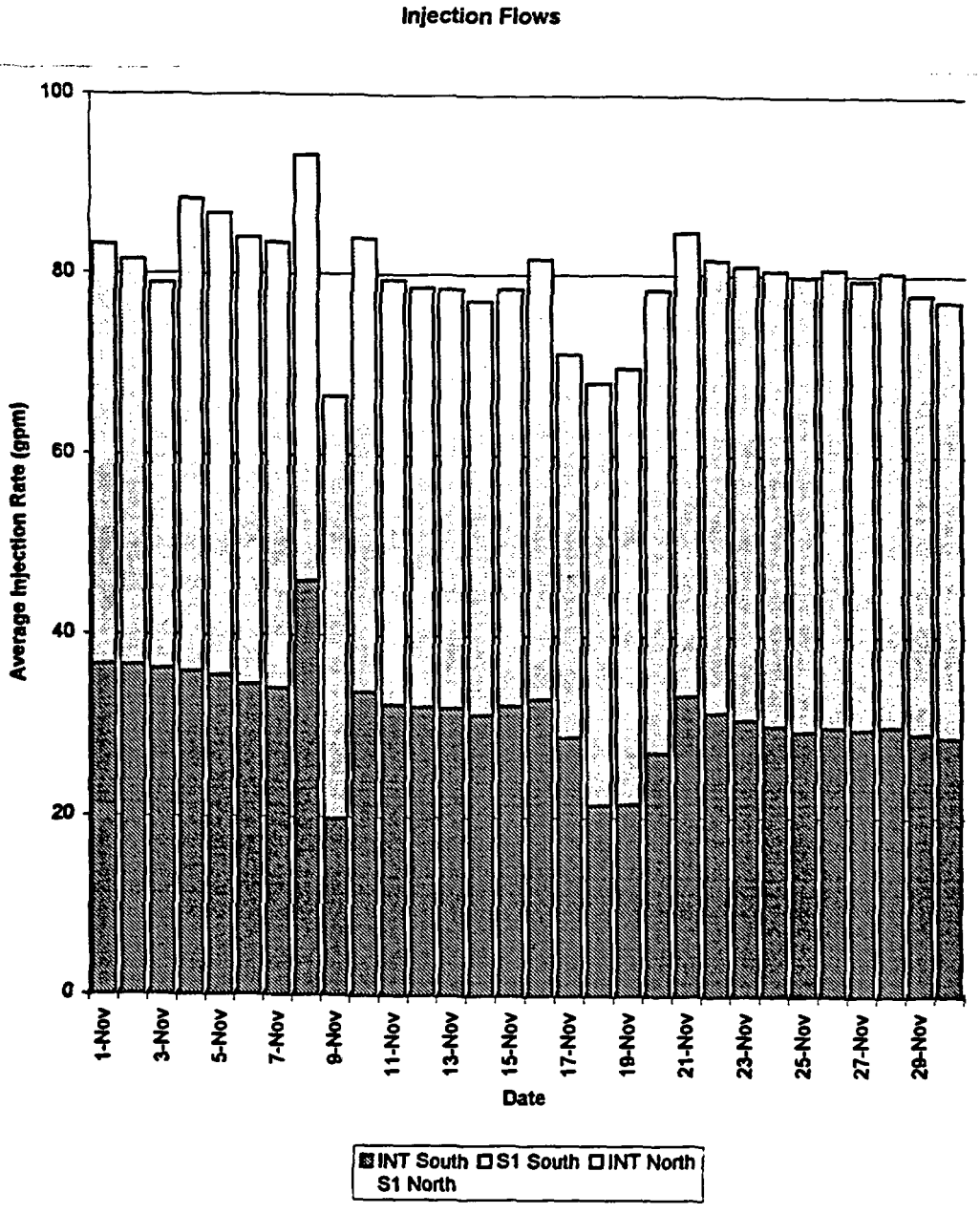
Injection Flows
Average Injection Rate (gpm)
100
80
60
40
20
0
1-Nov
3-Nov
5-Nov
7-Nov
9-Nov
11-Nov
13-Nov
15-Nov
17-Nov
19-Nov
21-Nov
23-Nov
25-Nov
27-Nov
29-Nov
Date
INT South
S1 South
INT North
S1 North

TABLE 4-6

Schedule for Shut-Down of INT and S1 Pumping and Injection Wells

Date	Well #	Type (Prod. or Inj.)	Meter Reads	Flow Rate (gpm)	Operator tagged out
01-94	S1-35	Production			MC
	S1-43	Production			MC
05-94	S1-33	Production			MC
06-94	S1-34	Production			MC
06-94	S1-36	Production			MC
	S1-37	Production			MC
	S1-38	Production			MC
06-94	S1-42	Production			MC
	S1-23	Production			MC
	S1-5	Production			MC
12-94	S1-1	Production			WW
	S1-2	Production			WW
	S1-3	Production			WW
	S1-4	Production			WW
	S1-6	Production			WW
12-94	S1-7	Production			WW
	S1-8	Production			WW
	S1-9	Production			WW
	S1-10	Production			WW
12-94	S1-11	Production			WW
	S1-12	Production			WW
	S1-13	Production			WW
	S1-14	Production			WW
12-94	S1-15	Production			WW
	S1-16	Production			WW
	S1-58	Injection	Leaking seal		WW
January, 1995 converted S1-1 thru S1-9 to injection for recharge water table for vegetation.					
02-18-95	S1-49	Injection		1.30	
	S1-39	Production		8.50	
	S1-60	Production		4.50	
	S1-48	Production		2.50	
	INT-17	Production		0.12	

TABLE 4-6 (Continued)

Schedule for Shut-Down of INT and S1 Pumping and Injection Wells

Date	Well #	Type (Prod. or Inj.)	Meter Reads	Flow Rate (gpm)	Operator tagged out
02-19-95	INT-85	Injection		0.33	
	INT-86	Injection		1.00	
	INT-16	Production		0.16	
	S1-50	Injection		1.85	
	S1-19	Production		3.40	back on 2/22/95
02-20-95	S1-56	Injection		3.85	
	S1-57	Injection		2.50	
	INT-87	Injection		0.51	
	INT-88	Injection		1.33	
	INT-89	Injection		1.10	
02-21-95	S1-46	Production		20.0	
	INT-15	Production		0.85	
	INT-90	Injection		2.75	
	INT-100	Injection		0.10	
02-22-95	INT-99	Injection		2.75	
	INT-91	Injection		1.69	
	INT-92	Injection		3.00	
	INT-93	Injection		1.00	
02-23-95	INT-94	Injection		0.08	
	INT-95	Injection		1.30	
	INT-96	Injection		1.00	
	S1-44	Production		9.00	
02-24-95	INT-201	Injection		1.21	
	S1-51	Injection		0.70	
	INT-33	Production		0.18	
	S1-40	Production		10.0	
02-25-95	S1-52	Injection		1.12	
	S1-53	Injection		1.75	
	INT-32	Production		1.00	
	INT-31	Production		1.55	
02-26-95	S1-41	Production		9.00	
	S1-45	Production		3.00	
	INT-30	Production		1.63	
	INT-29	Production		3.00	

TABLE 4-6 (Continued)

Schedule for Shut-Down of INT and S1 Pumping and Injection Wells

Date	Well #	Type (Prod. or Inj.)	Meter Reads	Flow Rate (gpm)	Operator tagged out
02-27-95	INT-25	Production		0.40	
	INT-214	Production		5.10	
	INT-211	Production		1.90	
	INT-216	Production		0.70	
02-28-95	S1-24	Production		7.00	
	S1-31	Production		3.50	
	S1-47	Production		2.01	
	S1-18	Production		1.67	
4-13-95	INT-14	Production		.15	
	INT-18	Production		.44	
	INT-65	Production		.80	
	INT-66	Production		1.70	
6-5-95	S1-20	Production		3.81	
	S1-21	Production		11.02	
	S1-66	Injection		5.6	
	S1-67	Injection		8.0	
6-12-95	S1-59	Injection		5.7	
	S1-68	Injection		3.4	
7-15-95	INT-202	Injection		1.1	
8-1-95	S1-25	Production		3.0	
	S1-26	Production		4.5	
	S1-27	Production		1.3	
	S1-28	Production		4.1	
8-2-95	INT-82	Injection		0.2	
	INT-83	Injection		1.1	
	INT-84	Injection		2.2	
	INT-62	Production		0.4	
9-1-95	S1-55	Injection		2.2	
	S1-54	Injection		1.2	
	INT-71	Injection		0.8	
9-25-95	S1-21	Production - back on line		10.0	
10-2-95	S1-68	Injection - back on line		3.4	

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Schedule for Shut-Down of INT and S1 Pumping and Injection Wells

Date	Well #	Type (Prod. or Inj.)	Meter Reads	Flow Rate (gpm)	Operator tagged out
11-1-95	INT-7	Production - back on 11/24		1.0	
	INT-6	Production - back on 11/24		0.6	
	INT-8	Production - back on 11/24		1.0	

4.3 Pending Issues

4.3.1 S1 Unit Pulse Pumping

No wells are on a pulse pump program this period. Schedule of well shut-off is included as Table 4-6.

4.4 Operational Refinements

No wells were plugged and abandoned in November.

Converted INT-60-P-1 and INT-60-P-2 monitoring wells to injection. Converted INT-133 pumping well to injection.

A phosphorous dosing of injection wells program was started in November. This schedule is included as Attachment 4B.

4.5 Data Summary and Discussion

4.5.1 Groundwater Production and Injection

Groundwater production target rates were adjusted to 80 gpm to compensate for the expanded shut-off. Injection target rates were adjusted to 80 gpm to compensate for the shut off.

4.5.2 Groundwater Levels and Flow Directions

The current extent of affected groundwater is contained within the S1 and INT extraction system capture zones. Contour maps which reflect the zones are included as Figure 4-3 and Figure 4-4.

4.5.3 TOC in shallow groundwater

TOC analyses on production wells were completed the first week in November. The analyses are in Table 4-7 and Table 4-8.

4.5.4 In-Situ Bioremediation

The emphasis continues to be to maximize delivery of oxygen and nutrients to the INT and S1 system. Dissolved oxygen analysis was conducted on the monitoring wells during the third well volume pumped.

4.6 Schedule

Concentrating on maximizing injection and production until shut-down are the goals of the operation staff.

TABLE 4-7

HISTORY OF TOC CONCENTRATIONS
AT S1 PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)	Feb 1995 (ppm)	Mar 1995 (ppm)	Apr 1995 (ppm)	May 1995 (ppm)	June 1995 (ppm)	July 1995 (ppm)	August 1995 (ppm)	Sep 1995 (ppm)	Oct 1995 (ppm)	Nov 1995 (ppm)
S1-1	290	NS	1,592	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-2	190	NS	1,044	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-3	370	NS	624	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-4	47	NS	582	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-5	51	NS	504	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-6	51	NS	774	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-7	200	NS	708	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-8	64	NS	708	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-9	77	NS	1,520	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-10	46	NS	2,205	1,860	448	1,680	NS	NS	NS	NS	NS	NS	NS
S1-11	120	NS	2,121	2,320	40	1,608	NS	NS	NS	NS	NS	NS	NS
S1-12	140	NS	1,850	1,960	344	105	NS	NS	NS	NS	NS	NS	NS
S1-13	520	NS	678	820	312	0	NS	NS	NS	NS	NS	NS	NS
S1-14	590	NS	1,392	1,430	592	1,340	NS	NS	NS	NS	NS	NS	NS
S1-15	5,300	NS	2,597	2,530	1,488	3,059	NS	NS	NS	NS	NS	NS	NS
S1-16	8,900	NS	1,050	330	136	288	NS	NS	NS	NS	NS	NS	NS
S1-17	6,800	NS	73	76	72	46	29	30	10	16	NS	NS	21
S1-18	2,200	NS	24	37	72	23	NS	NS	NS	NS	NS	NS	NS
S1-19	20	NS	14	16	32	18	13	NS	NS	20	NS	NS	40
S1-20	120	NS	21	16	17	6	6	NS	NS	NS	NS	NS	NS
S1-21	65	NS	6	3	11	15	BDL	NS	NS	NS	NS	NS	19
S1-22	290	NS	30	55	NS	199	135	196	227	410	NS	NS	760
S1-23	350	NS	13	12	NS	7	NS	NS	NS	NS	NS	NS	NS
S1-24	250	NS	13	10	NS	19	NS	NS	NS	NS	NS	NS	NS
S1-25	550	NS	13	13	NS	10	27	18	17	NS	NS	NS	NS
S1-26	540	NS	14	11	NS	10	25	16	22	NS	NS	NS	NS
S1-27	220	NS	25	31	NS	24	34	31	3	NS	NS	NS	NS
S1-28	370	NS	14	16	NS	10	31	22	21	NS	NS	NS	NS
S1-29	670	NS	16	11	NS	23	31	18	1	24	NS	NS	NS
S1-30	370	NS	20	22	NS	15	NS	17	28	NS	NS	NS	NS
S1-31	14	NS	12	11	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-32	18	NS	35	37	41	73	19	18	32	14	12	11	27
S1-33	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-34	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-35	24	NS	28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-36	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-37	13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-38	59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-39	290	NS	10	12	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-40	150	NS	18	21	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-41	170	NS	10	16	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-42	88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-43	4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-44	280	NS	9	19	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-45	4,400	NS	10	32	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-46	480	NS	4	11	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-47	1,200	NS	24	28	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-48	1,200	NS	15	22	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-60	48	NS	8	14	NS	NS	NS	NS	NS	NS	NS	NS	NS
S1-61	NS	NS	78	116	108	63	23	16	24	8	5.6	7	6
S1-62	NS	NS	20	14	11	3	4	7	19	10	7	10	6
S1-63	NS	NS	155	120	70	47	27	24	27	30	22	9	11
S1-64	NS	NS	44	50	43	61	52	29	36	32	52	90	88

NS = Not Sampled

TABLE 4-8

HISTORY OF TOC CONCENTRATIONS
AT INT PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)	Feb 1995 (ppm)	Mar 1995 (ppm)	Apr 1995 (ppm)	May 1995 (ppm)	June 1995 (ppm)	July 1995 (ppm)	August 1995 (ppm)	Sep 1995 (ppm)	Oct 1995 (ppm)	Nov 1995 (ppm)
INT-1	3,500	NS	204	270	273	369	172	212	185	118	209	291	248
INT-2	1,800	NS	91	492	563	253	892	741	435	NS	NS	NS	NS
INT-3	5,200	NS	1,016	940	624	551	452	270	142	9	51	51	50
INT-4	610	NS	198	180	209	229	149	128	145	204	154	236	192
INT-5	960	NS	76	70	45	87	68	72	123	150	NS	NS	
INT-6	280	NS	78	72	46	65	68	65	74	NS	NS	NS	
INT-7	100	NS	120	123	NS	116	102	115	96	91	NS	NS	96
INT-8	75	NS	47	45	NS	47	43	43	30	28	NS	NS	42
INT-9	800	NS	68	58	NS	72	129	154	57	76	NS	NS	95
INT-10	1,900	NS	45	45	20	56	56	62	76	36	58	80	324
INT-11	590	NS	31	27	29	50.4	43	23	37	196	281	290	288
INT-12	3,300	NS	32	16	31	72	65	145	53	36	17	84	18
INT-13	590	NS	34	12	NS	11	9	11	5	6	NS	12	6
INT-14	24	NS	39	50	54	0	NS	NS	NS	NS	NS	NS	
INT-15	19	NS	17	16	NS	NS	NS	NS	NS	NS	NS	NS	
INT-16	2,000	NS	6	11	NS	NS	NS	NS	NS	NS	NS	NS	
INT-17	7	NS	8	14	NS	NS	NS	NS	NS	NS	NS	NS	
INT-18	4	NS	24	20	31	36	NS	NS	NS	NS	NS	NS	
INT-19	1,400	NS	56	49	NS	38	714	36	63	69	NS	62	47
INT-20	3,500	NS	1,480	1,476	1,425	998	1480	1080	719	NS	NS	NS	
INT-21	29	NS	204	132	540	188	200	240	137	150	242	200	310
INT-22	8	NS	117	135	199	160	136	110	106	27	2	91	106
INT-23	16	NS	36	40	30	NS	29	48	44	34	NS	70	57
INT-24	240	NS	58	56	NS	47	48	42	36	NS	NS	27	67
INT-25	36	NS	20	18	NS	NS	NS	NS	NS	NS	NS	NS	
INT-26	120	NS	110	108	NS	107	76	80	73	80	NS	NS	106
INT-27	180	NS	65	75	NS	66	50	52	44	44	NS	NS	52
INT-28	630	NS	22	26	NS	47	37	60	53	54	NS	NS	68
INT-29	1,100	NS	35	40	NS	NS	NS	NS	NS	NS	NS	NS	
INT-30	1,400	NS	27	20	NS	NS	NS	NS	NS	NS	NS	NS	
INT-31	70	NS	20	19	NS	NS	NS	NS	NS	NS	NS	NS	
INT-32	880	NS	12	16	NS	NS	NS	NS	NS	NS	NS	NS	
INT-33	120	NS	10	9	NS	NS	NS	NS	NS	NS	NS	NS	
INT-55	NS	NS	65	48	NS	78	44	29	22	19	NS	27	25
INT-56	NS	NS	132	120	NS	131	104	73	89	94	NS	89	80
INT-57	NS	NS	75	68	NS	55	61	54	31	31	NS	23	64
INT-58	NS	NS	28	29	NS	26	21	23	25	NS	NS	11	
INT-59	NS	NS	50	42	NS	61	43	47	43	34	NS	NS	22
INT-60	NS	NS	86	80	NS	90	75	73	73	70	NS	NS	60
INT-61	NS	NS	31	31	NS	32	27	39	27	20	NS	NS	16
INT-62	NS	NS	29	20	NS	26	25	64	64	NS	NS	NS	
INT-65	NS	NS	51	41	NS	50	NS	NS	NS	NS	NS	NS	
INT-66	NS	NS	94	85	NS	51	NS	NS	NS	NS	NS	NS	
INT-143	NS	NS	NS	NS	NS	NS	NS	11	14	5	2	5	
INT-205	NS	NS	34	34	NS	50	42	39	36	34	NS	35	195
INT-206	NS	NS	65	60	NS	51.5	46	20	20	13	NS	14	16
INT-207	NS	NS	74	92	95	100.1	70	68	72	58	72	76	104
INT-208	NS	NS	11	18	NS	16	NS	10	11	8	NS	9	29
INT-209	NS	NS	13	17	NS	5	4.3	1.5	5	2	NS	2	31
INT-210	NS	NS	23	26	NS	28	27	20	22	23	NS	21	54
INT-211	NS	NS	29	41	NS	NS	NS	NS	NS	NS	NS	NS	
INT-212	NS	NS	41	38	NS	69	48	46	42	41	NS	39	222
INT-213	NS	NS	91	143	NS	89	205	66	63	75	NS	NS	
INT-214	NS	NS	22	26	NS	NS	NS	NS	NS	NS	NS	NS	
INT-215	NS	NS	56	67	NS	43	44	41	28	47	NS	NS	56
INT-216	NS	NS	26	34	NS	NS	NS	NS	NS	NS	NS	NS	
INT-217	NS	NS	60	62	NS	75	72	60	63	75	NS	58	74
INT-228	NS	NS	NS	NS	NS	NS	NS	25	19	NS	1	11	
INT-229	NS	NS	NS	NS	NS	NS	NS	3.6	NS	2	BDL	19	26
INT-230	NS	NS	NS	NS	NS	NS	NS	16	NS	NS	7	34	15

NS = Not Sampled

Averages													
ST	784	NS	451	336	226	337	33	34	36	63	20	25	109
INT	957	NS	100	105	263	111	148	105	84	57	91	70	93

TABLE 4-9

Dissolved Oxygen at Production Wells

Well	5/28/95	6/30/95	7/27/95	8/31/95	9/27/95	11/5/95
S1-1	NM	NM	NM	NM	NM	NM
S1-2	NM	NM	NM	NM	NM	NM
S1-3	NM	NM	NM	NM	NM	NM
S1-4	NM	NM	NM	NM	NM	NM
S1-5	NM	NM	NM	NM	NM	NM
S1-6	NM	NM	NM	NM	NM	NM
S1-7	NM	NM	NM	NM	NM	NM
S1-8	NM	NM	NM	NM	NM	NM
S1-9	NM	NM	NM	NM	NM	NM
S1-10	NM	NM	NM	NM	NM	NM
S1-11	NM	NM	NM	NM	NM	NM
S1-12	NM	NM	NM	NM	NM	NM
S1-13	NM	NM	NM	NM	NM	NM
S1-14	NM	NM	NM	NM	NM	NM
S1-15	NM	NM	NM	NM	NM	NM
S1-16	NM	NM	NM	NM	NM	NM
S1-17	2.0	2.9	3.8	5.2	8.7	7.1
S1-18	NM	NM	NM	NM	NM	NM
S1-19	4.2	NM	2.6	3.3	0.7	2.0
S1-20	10.2	NM	NM	NM	NM	NM
S1-21	15+	NM	NM	NM	9.0	11.7
S1-22	1.4	0.8	0.8	0.8	0.4	1.0
S1-23	NM	NM	NM	NM	NM	NM
S1-24	NM	NM	NM	NM	NM	NM
S1-25	0.7	0.8	0.8	NM	NM	NM
S1-26	0.7	1.0	0.7	NM	NM	NM
S1-27	0.6	1.2	0.7	NM	NM	NM
S1-28	0.4	1.3	2.3	NM	NM	NM
S1-29	0.8	3.2	2.1	1.7	0.7	NM
S1-30	NM	1.0	3.4	0.9	NM	NM
S1-31	NM	NM	NM	NM	NM	NM
S1-32	NM	1.6	0.7	0.7	1.7	2.3
S1-33	NM	NM	NM	9.3	NM	NM
S1-34	NM	NM	NM	NM	NM	NM
S1-35	NM	NM	NM	NM	NM	NM
S1-36	NM	NM	NM	NM	NM	NM
S1-37	NM	NM	NM	NM	NM	NM
S1-38	NM	NM	NM	NM	NM	NM
S1-39	NM	NM	NM	NM	NM	NM
S1-40	NM	NM	NM	NM	NM	NM
S1-41	NM	NM	NM	NM	NM	NM
S1-42	NM	NM	NM	NM	NM	NM
S1-43	NM	NM	NM	NM	NM	NM
S1-44	NM	NM	NM	NM	NM	NM
S1-45	NM	NM	NM	NM	NM	NM
S1-46	NM	NM	NM	NM	NM	NM
S1-47	NM	NM	NM	NM	NM	NM
S1-48	NM	NM	NM	NM	NM	NM
S1-60	NM	NM	NM	NM	NM	NM
S1-61	2.6	2.6	13.2	15+	15+	15+
S1-62	15+	15+	11.7	11.4	5.5	15+
S1-63	9.7	4.2	7.7	6.7	6.0	15+
S1-64	2.7	2.7	2.8	2.4	1.6	15+

TABLE 4-9 (Continued)

Dissolved Oxygen at Production Wells

Well	5/28/95	6/30/95	7/27/95	8/31/95	9/27/95	11/5/95
INT-1	0.8	3.2	0.8	0.8	1.1	1.9
INT-2	0.4	1.1	1.0	NM	NM	NM
INT-3	0.6	0.8	2.6	13.6	15+	2.5
INT-4	0.8	1.8	0.8	1.4	0.5	0.8
INT-5	0.8	1.3	0.7	0.6	NM	NM
INT-6	0.6	1.0	0.5	NM	NM	NM
INT-7	0.6	1.1	0.9	0.8	1.8	0.4
INT-8	0.6	1.0	0.9	1.2	0.4	0.7
INT-9	0.6	0.8	1.1	0.7	0.4	1.1
INT-10	0.6	3.1	2.6	4.7	5.3	8.4
INT-11	8.3	5.8	9.7	2.9	2.2	1.2
INT-12	7.2	5.0	15.0	15+	1.6	15+
INT-13	2.8	10.6	1.8	9.1	15+	14.7
INT-14	NM	NM	NM	NM	NM	NM
INT-15	NM	NM	NM	NM	NM	NM
INT-16	NM	NM	NM	NM	NM	NM
INT-17	NM	NM	NM	NM	NM	NM
INT-18	NM	NM	NM	NM	NM	NM
INT-19	1.9	3.0	9.2	0.8	1.0	1.4
INT-20	0.6	1.2	0.7	NM	NM	NM
INT-21	0.8	1.3	3.8	1.6	2.2	1.4
INT-22	0.9	0.8	0.7	NM	4.2	1.0
INT-23	3.0	3.2	1.7	1.4	5.6	4.0
INT-24	3.8	2.7	3.7	NM	7.0	6.1
INT-25	NM	NM	NM	NM	NM	NM
INT-26	2.8	1.5	2.4	2.0	0.6	0.8
INT-27	1.7	0.9	1.0	1.0	2.0	1.4
INT-28	1.9	1.0	0.9	0.8	0.8	0.8
INT-29	NM	NM	NM	NM	NM	NM
INT-30	NM	NM	NM	NM	NM	NM
INT-31	NM	NM	NM	NM	NM	NM
INT-32	NM	NM	NM	NM	NM	NM
INT-33	NM	NM	NM	NM	NM	NM
INT-55	1.0	2.6	1.6	5.0	2.6	2.4
INT-56	0.4	1.5	0.8	1.7	0.7	1.2
INT-57	0.8	5.7	2.9	0.6	0.6	0.9
INT-58	0.4	1.4	1.0	NM	1.4	NM
INT-59	1.0	2.2	1.0	0.8	2.2	0.6
INT-60	1.4	1.9	5.7	3.9	6.4	2.7
INT-61	1.5	1.8	3.9	1.3	2.6	2.2
INT-62	1.6	1.1	0.9	NM	NM	NM
INT-65	NM	NM	NM	NM	NM	NM
INT-66	NM	NM	NM	NM	NM	NM

TABLE 4-9 (Continued)

Dissolved Oxygen at Production Wells

Well	5/28/95	6/30/95	7/27/95	8/31/95	9/27/95	11/6/95
INT-143	NM	15+	15+	15+	15+	NM
INT-205	1.1	3.5	1.4	2.6	1.9	6.3
INT-206	1.0	3.1	1.5	1.0	5.8	1.6
INT-207	0.8	0.8	0.8	0.6	4.2	6.2
INT-208	NM	13.0	14.4	0.9	12.0	15+
INT-209	15+	15+	15+	15+	15+	15+
INT-210	15+	15+	14.0	15+	11.8	15+
INT-211	NM	NM	NM	NM	NM	NM
INT-212	0.7	2.4	1.0	1.2	2.4	1.5
INT-213	1.2	0.9	0.7	1.0	0.5	0.7
INT-214	NM	NM	NM	NM	NM	NM
INT-215	5.2	5.6	2.4	3.4	8.8	9.0
INT-216	NM	NM	NM	NM	NM	NM
INT-217	1.0	1.7	1.3	0.7	4.6	1.0
INT-228	NM	2.1	9.1	NM	2.2	NM
INT-229	NM	1.0	NM	NM	1.9	4.3
INT-230	NM	2.0	NM	NM	4.4	NM

TABLE 4-10

Dissolved Oxygen at Monitoring Wells

	3/25/95	4/9/95	5/4/95	6/11/95	7/27/95	8/23/95	9/15/95	10/27/95	11/30/95
ERT-3	NM	NM	NM	NM	NM	NM	NM	NM	NM
ERT-7	NM	NM	NM	NM	NM	NM	NM	NM	NM
ERT-8	NM	NM	NM	NM	NM	NM	NM	NM	NM
ERT-9	NM	NM	NM	NM	NM	NM	NM	NM	NM
ERT-22	NM	0.6	8.4	5.6	5.2	0.2	0.2	0.2	0.2
ERT-24	NM	NM	NM	NM	NM	NM	NM	NM	1.6
ERT-25	NM	NM	NM	NM	NM	NM	NM	NM	1.1
ERT-26	NM	NM	NM	NM	NM	NM	NM	NM	1.2
ERT-27	NM	NM	NM	NM	NM	NM	NM	NM	0.9
ERT-28	NM	NM	NM	NM	NM	NM	NM	NM	0.7
ERT-29	NM	NM	NM	NM	NM	NM	NM	NM	0.7
ERT-30	NM	NM	NM	NM	NM	NM	NM	NM	2.0
ERT-33	NM	NM	NM	NM	NM	NM	NM	NM	NM
ERT-34	NM	NM	NM	NM	NM	NM	NM	NM	NM
FLTG-1	NM	NM	NM	NM	NM	NM	NM	NM	1.1
FLTG-2	NM	NM	NM	NM	NM	NM	NM	NM	0.7
FLTG-3	NM	NM	NM	NM	NM	NM	NM	NM	1.8
FLTG-4	NM	NM	NM	NM	NM	NM	NM	NM	0.9
FLTG-5	NM	NM	NM	NM	NM	NM	NM	NM	4.4
FLTG-6	NM	NM	NM	NM	NM	NM	NM	NM	1.1
FLTG-7	0.2	0.3	0.2	0.3	0.6	0.2	0.4	0.2	0.7
FLTG-8	NM	NM	NM	NM	NM	NM	NM	NM	0.6
FLTG-9	NM	NM	NM	NM	NM	NM	NM	NM	22.4
FLTG-10	NM	NM	NM	NM	NM	NM	NM	NM	1.9
FLTG-11	NM	NM	NM	NM	NM	NM	NM	NM	1.1
FLTG-12	NM	NM	NM	NM	NM	NM	NM	NM	1.2
FLTG-13	NM	NM	NM	NM	NM	NM	NM	NM	3.4
FLTG-14	NM	NM	NM	NM	NM	NM	NM	NM	1.0
FLTG-15	NM	NM	NM	NM	NM	NM	NM	NM	3.6
INT-59-P1	NM	NM	NM	NM	NM	NM	NM	NM	0.3
INT-59-P4	NM	NM	NM	NM	NM	NM	NM	NM	0.6
INT-60-P1	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-60-P4	NM	NM	NM	NM	NM	NM	NM	NM	1.4
INT-101	0.2	0.3	0.3	1.0	1.3	0.2	0.2	0.2	0.8
INT-102	14.9	15+	15+	6.9	12.8	15+	15+	10.0	12.4
INT-103	NM	NM	NM	NM	NM	NM	NM	NM	0.2
INT-104	NM	NM	NM	NM	4.0	3.0	NM	NM	5.2
INT-105	NM	NM	NM	NM	NM	NM	NM	NM	1.2

TABLE 4-10 (Continued)

Dissolved Oxygen at Monitoring Wells

	3/25/95	4/9/95	5/4/95	6/11/95	7/27/95	8/23/95	9/15/95	10/27/95	11/30/95
INT-106	NM	NM	NM	NM	0.8	NM	NM	NM	0.2
INT-107	NM	NM	NM	NM	NM	NM	NM	NM	2.0
INT-108	0.2	0.3	1.5	0.2	1.0	0.6	1.2	0.4	0.2
INT-109	NM	NM	NM	NM	NM	NM	NM	NM	0.2
INT-110	NM	NM	NM	NM	2.3	NM	NM	NM	0.2
INT-111	NM	NM	NM	NM	2.7	0.2	NM	NM	NM
INT-112	15+	15+	15+	15+	15+	15+	15+	15.0	39.6
INT-113	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-114	NM	NM	NM	NM	3.4	3.4	NM	NM	0.2
INT-115	NM	NM	NM	NM	2.8	0.4	NM	NM	0.2
INT-116	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-117	NM	NM	NM	NM	NM	NM	NM	NM	NM
INT-118	NM	NM	NM	NM	NM	NM	NM	NM	3.8
INT-119	NM	NM	NM	NM	0.4	0.2	NM	NM	0.2
INT-132	NM	NM	NM	NM	4.0	NM	NM	NM	1.1
INT-133	NM	NM	NM	NM	2.2	NM	NM	NM	NM
INT-134	NM	NM	NM	NM	1.8	NM	NM	NM	NM
INT-135	0.2	0.4	0.2	1.9	1.3	NM	NM	1.3	1.5
INT-137	NM	NM	NM	NM	2.8	NM	NM	NM	2.2
INT-138	NM	NM	NM	NM	0.8	NM	NM	NM	0.9
INT-139	NM	NM	NM	NM	NM	NM	NM	NM	0.7
P-5	NM	NM	NM	NM	NM	NM	NM	NM	0.3
P-6	NM	NM	NM	NM	NM	NM	NM	NM	NM
REI-10-2	NM	NM	NM	NM	0.3	0.1	0.6	1.8	0.8
REI-10-3	NM	NM	NM	NM	0.2	0.2	0.4	0.4	1.0
REI-12-2	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-101	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-102	0.3	0.2	0.3	0.3	0.6	0.3	0.2	11.5	1.1
S1-103	NM	NM	NM	NM	NM	NM	NM	NM	19.6
S1-104	NM	NM	NM	NM	4.8	0.6	NM	NM	22.0
S1-105	NM	NM	NM	NM	14.0	NM	NM	NM	2.8
S1-106	0.2	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.8
S1-107	NM	NM	NM	NM	11.0	15+	NM	NM	8.6
S1-108	NM	NM	NM	NM	NM	NM	NM	NM	6.3
S1-109	NM	NM	NM	NM	11.2	1.0	NM	NM	0.2
S1-110	NM	NM	NM	NM	NM	NM	NM	NM	0.2
S1-111	NM	NM	NM	NM	NM	NM	NM	NM	56.4
S1-112	NM	NM	NM	NM	NM	NM	NM	NM	1.6
S1-113	0.3	0.3	0.2	0.3	0.7	0.2	0.2	0.4	0.9

TABLE 4-10 (Continued)

Dissolved Oxygen at Monitoring Wells

	3/25/95	4/9/95	5/4/95	6/11/95	7/27/95	8/23/95	9/16/95	10/27/95	11/30/95
S1-114	NM	NM	NM	NM	0.2	0.2	NM	NM	0.2
S1-115	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-116	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-117	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-118	NM	NM	NM	NM	NM	NM	NM	NM	0.6
S1-135	NM	NM	NM	NM	NM	NM	NM	NM	1.2
S1-137	NM	NM	NM	NM	NM	NM	NM	NM	0.9
S1-50-P1	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-50-P3	NM	NM	NM	NM	NM	NM	NM	NM	0.2
S1-51-P1	NM	NM	NM	NM	NM	NM	NM	NM	NM
S1-51-P3	NM	NM	NM	NM	NM	NM	NM	NM	0.2
S2-101	NM	NM	NM	NM	NM	NM	NM	NM	0.2
SG-1	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-2	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-3	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-4	NM	NM	NM	NM	NM	NM	NM	NM	NM
SG-5	NM	NM	NM	NM	NM	NM	NM	NM	NM
W-3	NM	NM	NM	NM	NM	NM	NM	NM	1.0
W-4	NM	NM	NM	NM	NM	NM	NM	NM	NM
W-5	NM	NM	NM	NM	NM	NM	NM	NM	NM
W-7	NM	NM	NM	NM	NM	NM	NM	NM	NM

TABLE 4-11

Water Level Measurements 29-Nov-95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
ERT-01		18.65	NM
ERT-02		18.43	NM
ERT-03		15.53	NM
ERT-07		17.96	NM
ERT-08		18.34	NM
ERT-09		18.52	NM
ERT-10		18.54	NM
ERT-20	8.15	11.66	3.51
ERT-21	5.71	13.63	7.92
ERT-22	6.04	11.66	5.62
ERT-23	7.28	15.85	8.57
ERT-24	6.42	12.98	6.56
ERT-25	6.20	15.18	8.98
ERT-26	7.74	15.77	8.03
ERT-27	5.95	18.67	12.72
ERT-28	10.55	22.11	11.56
ERT-29	13.06	21.66	8.60
ERT-30	13.28	19.64	6.36
ERT-33		15.29	NM
ERT-34		15.56	NM
FLTG-01	3.28	9.84	6.56
FLTG-02	1.70	9.51	7.81
FLTG-03	4.49	10.96	6.47
FLTG-04	3.75	11.28	7.53
FLTG-05	5.04	11.80	6.76
FLTG-06	5.21	12.02	6.81
FLTG-07	6.44	13.31	6.87
FLTG-08	6.11	13.10	6.99
FLTG-09	7.84	14.80	6.96
FLTG-10	7.90	14.87	6.97
FLTG-11	8.57	15.36	6.79
FLTG-12	8.46	15.28	6.82
FLTG-13	4.09	12.02	7.93
FLTG-14	3.87	11.51	7.64
FLTG-15	3.91	12.53	8.62
INT-059-P1	5.03	11.64	6.61
INT-059-P2		11.68	NM
INT-059-P4	8.61	11.67	3.06
INT-060-P1		12.02	NM
INT-060-P2		11.99	NM
INT-060-P4	5.53	12.03	6.50
INT-101	10.72	13.12	2.40
INT-102	7.17	14.92	7.75
INT-103	5.03	11.86	6.83
INT-104	6.57	13.43	6.86
INT-105	5.71	12.64	6.93
INT-106	4.12	11.59	7.47
INT-107	7.29	14.94	7.65
INT-108	6.60	13.50	6.90
INT-109	6.81	11.84	5.03
INT-110	5.52	12.81	7.29

TABLE 4-11 (Continued)

Water Level Measurements 29-Nov-95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
INT-111		11.60	NM
INT-112	5.55	12.75	7.20
INT-113		15.71	NM
INT-114	4.66	11.55	6.89
INT-115	7.55	15.16	7.61
INT-116	11.02	14.81	3.79
INT-117	18.41	20.96	2.55
INT-118	10.75	19.53	8.78
INT-119	7.86	15.45	7.59
INT-120		15.05	NM
INT-121	13.64	15.25	1.61
INT-122	13.40	15.37	1.97
INT-123		15.05	NM
INT-124		14.40	NM
INT-125		13.67	NM
INT-126	9.93	11.72	1.79
INT-127	2.85	11.12	8.27
INT-128	2.56	11.15	8.59
INT-129		5.14	NM
INT-130	4.32	11.21	6.89
INT-131		5.83	NM
INT-132	16.21	14.96	-1.25
INT-133		16.89	NM
INT-134		16.79	NM
INT-135	23.31	17.99	-5.32
INT-136	13.17	14.40	1.23
INT-137	19.38	19.25	-0.13
INT-138	18.91	20.18	1.27
INT-139	19.42	19.97	0.55
INT-140		13.79	NM
INT-141	15.99	14.98	-1.01
INT-142	18.41	17.53	-0.88
INT-143		15.32	NM
INT-144	15.91	16.06	0.15
INT-145	16.37	16.55	0.18
INT-146	16.11	16.54	0.43
P-5	9.20	15.11	5.91
P-6		16.34	NM
REI-03-2		12.47	NM
REI-03-3		13.14	NM
REI-03-4	72.45	13.99	-58.46
REI-7	71.77	13.38	-58.39
REI-10-2	5.27	14.15	8.88
REI-10-3	3.98	15.12	11.14
REI-11	69.95	11.78	-58.17
REI-12-2	5.55	12.27	6.72
REI-3-1	6.15	13.44	7.29
S1-050-P1		12.75	NM
S1-050-P2		12.05	NM
S1-050-P3	4.36	12.83	8.47
S1-051-P1		12.68	NM

TABLE 4-11 (Continued)

Water Level Measurements 29-Nov-95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
S1-051-P2		12.91	NM
S1-051-P3	5.10	12.20	7.10
S1-101		12.77	NM
S1-102	6.24	15.64	9.40
S1-103	6.04	15.04	9.00
S1-104	7.76	12.98	5.22
S1-105	5.98	11.89	5.91
S1-106	7.37	13.97	6.60
S1-107	7.12	14.44	7.32
S1-108	5.80	12.56	6.76
S1-109	5.14	12.51	7.37
S1-110	4.91	11.77	6.86
S1-111	3.70	12.39	8.69
S1-112	4.41	12.53	8.12
S1-113	4.05	12.12	8.07
S1-114	7.14	15.02	7.88
S1-115	5.18	13.27	8.09
S1-116	7.21	15.37	8.16
S1-117	12.76	21.48	8.72
S1-118	9.65	18.99	9.34
S1-119		5.34	NM
S1-120	10.90	6.21	-4.69
S1-121	15.27	6.13	-9.14
S1-122	12.18	3.59	-8.59
S1-123	9.55	10.70	1.15
S1-124		5.58	NM
S1-125		5.24	NM
S1-126		5.49	NM
S1-127	10.23	4.88	-5.35
S1-128	8.69	5.12	-3.57
S1-129	8.72	5.44	-3.28
S1-130	8.75	5.85	-2.90
S1-131	11.01	5.47	-5.54
S1-132	13.82	4.49	-9.33
S1-133		5.26	NM
S1-134	7.06	5.98	-1.08
S1-135	7.81	18.02	10.21
S1-137	9.32	19.10	9.78
S2-101	72.30	16.53	-55.77
SG-1		9.98	NM
SG2 (Cell D)	4.58		
SG-3	7.61	1.27	-6.34
SG4 (E Pond)			
SG-5	8.88	5.33	-3.55
W-3	14.58	18.53	3.95
W-4		18.51	NM
W-5		18.51	NM
W-7		18.34	NM

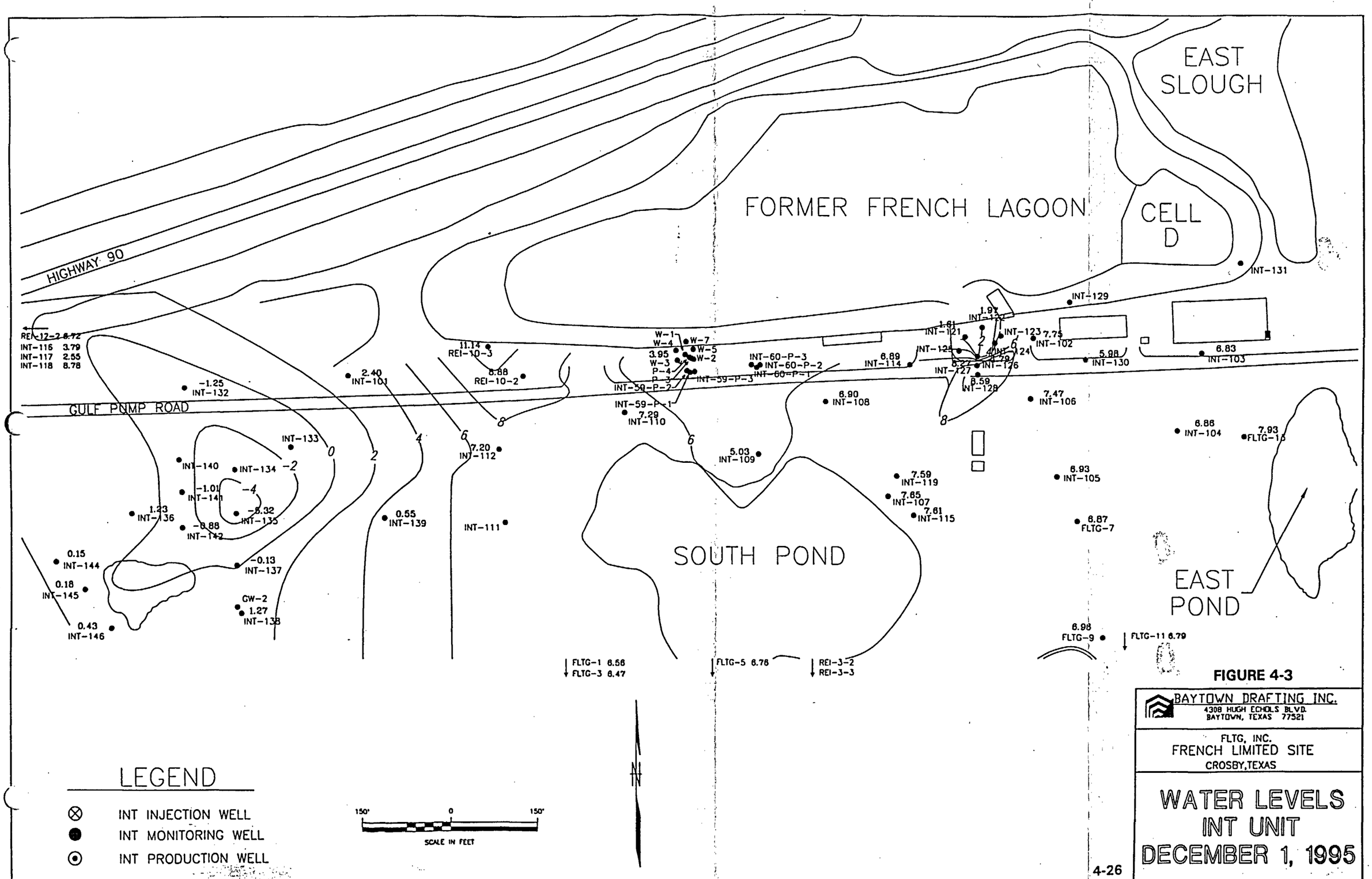

FIGURE 4-3

BAYTOWN DRAFTING INC.
4308 HUGH ECHOLS BLVD.
BAYTOWN, TEXAS 77521

FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS

WATER LEVELS
INT UNIT
DECEMBER 1, 1995

987759

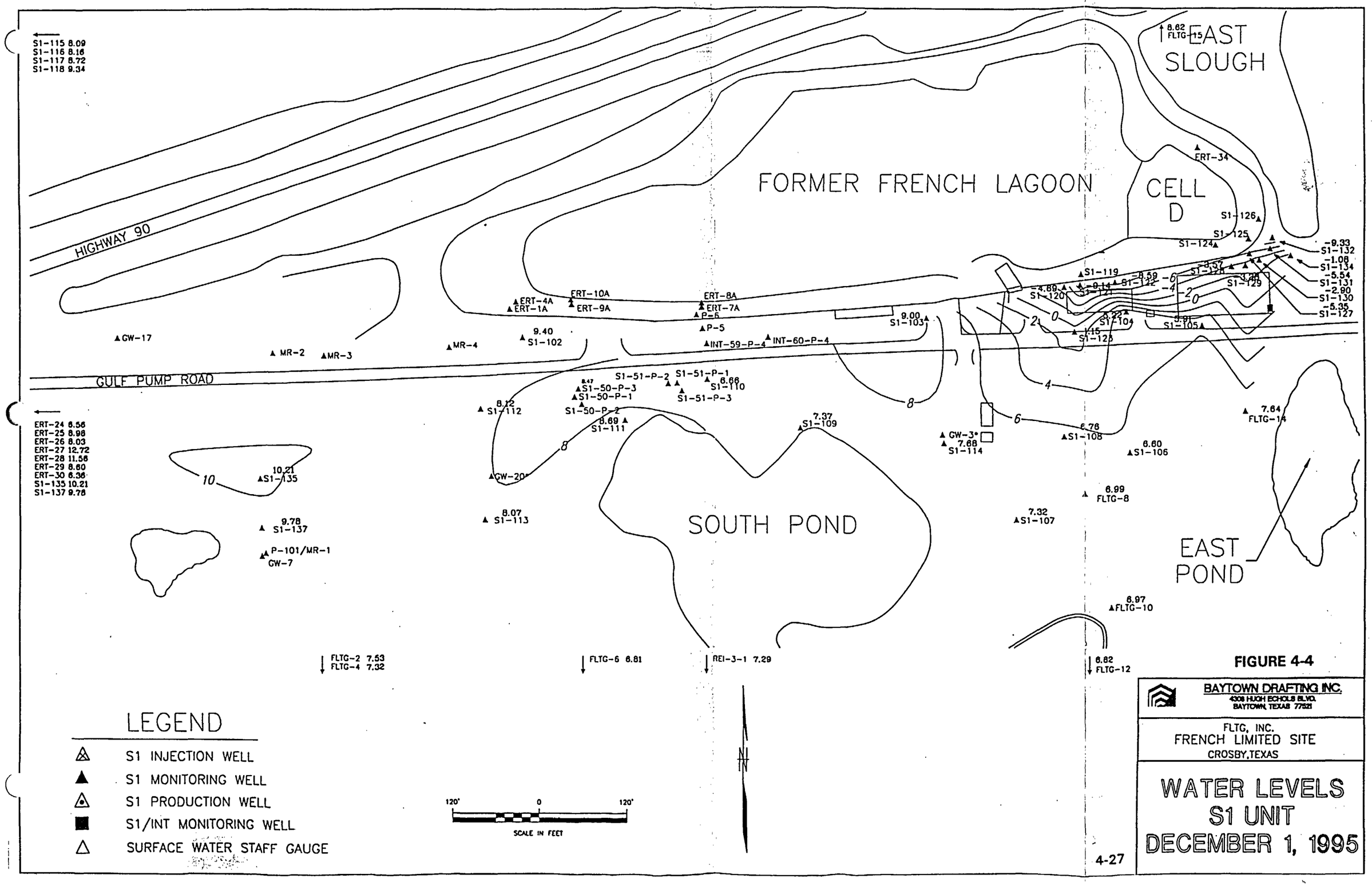

FIGURE 4-4

A

ATTACHMENT 4A

Well Status Report

087761

French Limited Project

Well Status Report

as of

November 19, 1995

187762

French Limited Project

Well Status Report as of November 19, 1995

- Total wells = 395 + 3 deep potable wells
- S1, INT, and C2 monitoring wells destroyed or unable to locate = 21 (1984-1995)
- S1, INT, and C2 monitoring wells plugged and abandoned = 3 (1984-1990, REI and ENSR)

  Sub total = 371

- Wells plugged by FLTG, 1995 = 81

  Monitoring - 18
  S1, production - 22 S1, injection - 10
  INT, production - 11 INT, injection - 20

  Sub total = 290

- Active wells

Monitoring	Combined (screened in S1 & INT)	13
	S1	71
	INT	66
	C2	6
Production	S1	11
	S1 - off, ready for P&A	7
Injection	S1	19 (7 inside lagoon)
	S1 - off, ready for P&A	6
Production	INT	46
	INT - off, ready for P&A	7
Injection	INT	33
	INT - off, ready for P&A	4
	INT - off, convert to monitoring	1 (INT-214)
	Total	290

087763

S1-Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
S1-1	Injection	1	6	Ready for P&A
S1-2	Injection	1	6	Ready for P&A
S1-3	Injection	1	6	Not suitable for inj., ready for P&A
S1-4	Injection	1	6	Available as inj. 12/21/95
S1-5	Injection	1	6	Available as inj. 12/21/95
S1-6	Injection	1	6	Available as inj. 12/21/95
S1-7	Injection	1	6	Available as inj. 12/21/95
S1-8	Injection	1	6	Available as inj. 12/21/95
S1-9	Injection	1	6	Available as inj. 12/21/95
S1-10	Injection	1	6	Available as inj. 12/21/95
S1-11	Production	1	6	Plugged & Abandoned
S1-12	Production	2	6	Plugged & Abandoned
S1-13	Production	2	6	Plugged & Abandoned
S1-14	Production	2	6	Plugged & Abandoned
S1-15	Production	2	6	Plugged & Abandoned
S1-16	Production	2	6	Plugged & Abandoned
S1-17	Production	3	6	On line
S1-18	Injection	3	6	On line
S1-19	Production	3	6	On line
S1-20	Injection	3	6	On line
S1-21	Production	3	6	On line
S1-22	Production	4	6	On line inside INT-11 wall
S1-23	Production	4	6	Off line, ready for P&A
S1-24	Production	4	6	Off line, ready for P&A
S1-25	Production	4	6	Off line, ready for P&A

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

S1-Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
S1-26	Production	4	6	Off line, ready for P&A
S1-27	Production	4	6	Off line, ready for P&A
S1-28	Production	4	6	Off line, ready for P&A
S1-29	Production	4	6	Off line, ready for P&A
S1-30	Production	5	6	On line
S1-31 o	Prod./Inj.	5	6	On line
S1-32	Production	5	6	On line
S1-33 o•	Production	6	6	On line
S1-34	Production	6	6	Plugged & Abandoned
S1-35	Production	6	6	Plugged & Abandoned
S1-36	Production	6	6	Plugged & Abandoned
S1-37	Production	6	6	Plugged & Abandoned
S1-38	Production	6	6	Plugged & Abandoned
S1-39	Production	6	6	Plugged & Abandoned
S1-40	Production	6	6	Plugged & Abandoned
S1-41	Production	6	6	Plugged & Abandoned
S1-42	Production	6	6	Plugged & Abandoned
S1-43	Production	7	6	Plugged & Abandoned
S1-44	Production	7	6	Plugged & Abandoned
S1-45	Production	7	6	Plugged & Abandoned
S1-46	Production	7	6	Plugged & Abandoned
S1-47	Production	7	6	Plugged & Abandoned
S1-48	Production	7	6	Plugged & Abandoned
S1-49	Injection	6	6	Plugged & Abandoned
S1-50	Injection	6	6	Plugged & Abandoned

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shaded area = long-term monitoring

S1-Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
S1-51	Injection	6	6	Plugged & Abandoned
S1-52	Injection	6	6	Plugged & Abandoned
S1-53	Injection	6	6	Plugged & Abandoned
S1-54	Injection	7	6	Plugged & Abandoned
S1-55	Injection	7	6	Plugged & Abandoned
S1-56	Injection	7	6	Plugged & Abandoned
S1-57	Injection	7	6	Plugged & Abandoned
S1-58	Injection	3	6	Plugged & Abandoned
S1-59	Injection	3	6	Off line, ready for P&A
S1-60	Production	7	6	Plugged & Abandoned
S1-61	Production	3	6	On line
S1-62	Production	3	6	On line
S1-63	Production	3	6	On line
S1-64 o	Production	3	6	On line
S1-65	Injection	4	4	On line
S1-66	Injection	3	4	Closed, ready for P&A
S1-67	Injection	3	4	Closed, ready for P&A
S1-68	Injection	3	4	On line
S1-69	Injection	3	4	On line
S1-70	Injection	3	4	On line
S1-101	Injection	5	4	On line
S1-133	Injection	3	4	On line

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shaded area = long-term monitoring

087766

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
ERT-1	Combined	1	4	On line
ERT-1A	S1	1	4	On line
ERT-2	Combined	1	4	Plugged & Abandoned
ERT-3	Combined	1	4	Plugged & Abandoned
ERT-4	Combined	1	4	Plugged & Abandoned
ERT-4A	S1	1	4	Plugged & Abandoned
ERT-5	Combined	1	4	Plugged & Abandoned
ERT-6	Combined	1	4	Plugged & Abandoned
ERT-7	Combined	1	4	Plugged & Abandoned
ERT-7A	S1	1	4	Plugged & Abandoned
ERT-8	Combined	1	4	Plugged & Abandoned
ERT-8A	S1	1	4	Plugged & Abandoned
ERT-9	Combined	1	4	Plugged & Abandoned
ERT-9A	S1	1	4	Plugged & Abandoned
ERT-10	Combined	1	4	Plugged & Abandoned
ERT-10A	S1	1	4	On line
ERT-20	Combined	7	4	On line
ERT-21	Combined	6	4	On line
ERT-22	Combined	6	4	On line
ERT-23	Combined	8	4	On line
ERT-24	Combined	5	4	On line
ERT-25	Combined	5	4	On line
ERT-26	Combined	5	4	On line
ERT-27	Combined	8	4	On line
ERT-28	Combined	8	4	On line

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
ERT-29	Combined	8	4	On line
ERT-30	Combined	8	4	On line
ERT-31	Combined	6	4	Destroyed, unable to locate
ERT-32	Combined	6	4	Destroyed, unable to locate
ERT-33	Combined	2	4	On line
ERT-34	S1	2	4	On line
FLTG-1	INT	6	4	On line
FLTG-2	S1	6	4	On line
FLTG-3	INT	6	4	On line
FLTG-4	S1	6	4	On line
FLTG-5	INT	6	4	On line
FLTG-6	S1	6	4	On line
FLTG-7	INT	7	4	On line
FLTG-8	S1	7	4	On line
FLTG-9	INT	7	4	On line
FLTG-10	S1	7	4	On line
FLTG-11	INT	7	4	On line
FLTG-12	S1	7	4	On line
FLTG-13•	INT	7	4	On line
FLTG-14•	S1	7	4	On line
FLTG-15	S1	7	4	On line
GW-1	INT	9	4	Destroyed, unable to locate
GW-2	INT	8	4	On line
GW-3	S1	6	4	Destroyed, unable to locate

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shaded area = long-term monitoring

087768

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
GW-4	39' unknown	6	4	Destroyed by new Highway 90
GW-5	S1	9	4	On line
GW-6	142' C2	6	4	Destroyed REI 1986
GW-6R	unknown	6	4	Destroyed REI 1986
GW-7	S1	8	4	On line
GW-8	unknown	6	?	Destroyed
GW-9	unknown	6	?	Destroyed
GW-12	C2	9	8	On line
GW-13	S1	9	4	On line
GW-14	S1	9	4	Destroyed REI 1986
GW-15R	S1	9	4	On line (west of Crosby motel)
GW-15	S1	9	4	On line
GW-16	S1	9	4	On line
GW-17	S1	5	4	On line
GW-18	S1	8 (Riverdale)	2	On line
GW-19	S1	8	2	On line
GW-20	S1	8	2	On line
GW-21	S1	-	-	Plugged & Abandoned 1984
GW-22	S1	7	2	On line
GW-23	S1	8	2	On line
GW-24	S1	Waitkus property	2	unable to locate
GW-25	C2	6	2	Plugged & Abandoned REI 1986

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shaded area = long-term monitoring

087769

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
P-1	INT	4	2	Destroyed 1990
P-2	INT	4	2	Destroyed 1990
P-3	INT	4	2	On line
P-4	INT	4	2	On line
P-5 o•	S1	4	2	On line
P-6 o•	S1	1	2	On line
P-101 (MR-1)	S1	8	4	On line
REI-1	Landfill cap monitoring	8	2	Plugged & Abandoned
REI-3-1	S1	6	4	Damaged but okay
REI-3-2	INT	6	4	Damaged but okay
REI-3-4	145' C2	6	4	Okay
REI-3-5	S1	6	4	Destroyed
REI-4-1	INT	8 (Riverdale)	4	Unable to locate
REI-4-2	S1	8 (Riverdale)	4	Unable to locate
REI-5	S1	8	2	On line
REI-6-1	INT	4	4	Plugged & Abandoned
REI-6-2	S1	4	4	Plugged & Abandoned
REI-7	136', C2	7	4	On line
REI-8	S1	8	2	On line
REI-9	S1	8	2	Destroyed
REI-10-1	151', C2	5	4	Plugged & Abandoned, ENSR 1989
REI-10-2	INT	5	4	On line

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shaded area = long-term monitoring

087770

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
REI-10-3	INT	5	4	On line
REI-10-4	INT	5	4	Destroyed
REI-11	152', C2	6	4	On line
REI-12-1	151', C2	9	4	On line
REI-12-2	INT	9	4	On line
REI-P10-2	92', C2	5	1.25	Destroyed per Mike Day, 1991
REI-P10-3	84', C2	5	2	Destroyed
REI-P10-4	82', C2	5	2	Destroyed
W01	INT	4	6	On line
W02	INT	4	4	On line
W03	INT	4	4	On line
W05	INT	4	4	On line
W06	INT	4	4	On line
W07	INT	1	4	On line
S1-50-P-1	S1	6	2	On line
S1-50-P-2	S1	6	2	On line
S1-50-P-3	S1	6	2	On line
S1-51-P-1	S1	6	2	On line
S1-51-P-2	S1	6	2	On line
S1-51-P-3•	S1	6	2	On line
S1-102	S1	5	4	On line
S1-103	S1	4	4	On line
S1-104	S1	3	4	On line
S1-105	S1	3	4	On line

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
S1-106 o	S1	7	4	On line
S1-106A•	S1	7	4	On line
S1-107	S1	6	4	On line
S1-108	S1	6	4	On line
S1-108A•	S1	6	4	On line
S1-109	S1	6	4	On line
S1-110	S1	6	4	On line
S1-111 o	S1	6	4	On line
S1-112	S1	6	4	On line
S1-113	S1	6	4	On line
S1-114	S1	6	4	On line
S1-115	S1	9	4	On line
S1-116	S1	9	4	On line
S1-117	S1	9	4	On line
S1-118 o	S1	5	4	On line
S1-119 o•	S1	2	4	On line
S1-120	S1	3	4	On line
S1-121 o•	S1	3	4	On line
S1-122	S1	3	4	On line
S1-123 o	S1	3	4	On line
S1-124	S1	2	4	On line
S1-125	S1	2	4	On line
S1-126 o	S1	2	4	On line
S1-127	S1	3	4	On line
S1-128	S1	3	4	On line

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

087772

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
S1-129	S1	3	4	On line
S1-130	S1	3	4	On line
S1-131 o	S1	3	4	On line
S1-132	S1	3	4	On line
S1-134	S1	3	4	On line
S1-135•	S1	8	4	On line
S1-137•	S1	8	4	On line
S2-101	135', C2	6	4	On line
MR-2	S1	5	4	On line
MR-3	S1	5	4	On line
MR-4	S1	5	4	On line
MRP-3	S1	5	2	On line
INT-59-P-1	INT	4	2	On line
INT-59-P-2 o	INT	4	2	On line
INT-59-P-3	INT	4	2	On line
INT-59-P-4	INT	4	2	On line
INT-60-P-1	INT	4	2	On line
INT-60-P-2	INT	4	2	On line
INT-60-P-3 o	INT	4	2	On line
INT-60-P-4	INT	4	2	On line
INT-101 o	INT	5	4	On line
INT-102	INT	3	4	On line
INT-103	INT	3	4	On line
INT-104	INT	7	4	On line
INT-105	INT	7	4	On line

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

087773

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
INT-106 o •	INT	7	4	On line
INT-107	INT	6	4	On line
INT-108•	INT	6	4	On line
INT-109	INT	6	4	On line
INT-110	INT	6	4	On line
INT-111	INT	6	4	On line
INT-112	INT	6	4	On line
INT-114	INT	4	4	On line
INT-115	INT	6	4	On line
INT-116	INT	9	4	On line
INT-117	INT	9	4	On line
INT-118 o	INT	5	4	On line
INT-119	INT	6	4	On line
INT-121	INT	4	4	On line
INT-122	INT	4, INT-11 wall	4	On line
INT-123 o	INT	4	4	On line
INT-124	INT	4	4	Plugged & Abandoned
INT-125	INT	4	4	Plugged & Abandoned
INT-126	INT	4	4	On line
INT-127 o	INT	4	4	On line
INT-128	INT	4	4	On line
INT-130	INT	3	4	On line
INT-131	INT	2	4	On line
INT-132	INT	5	4	On line

o = progress monitoring • = compliance monitoring o • = progress & compliance
shaded area = long-term monitoring

INT and S1 Monitoring Wells in Numerical Order

Well	Function	Location	Size	Status
INT-135 o •	INT	8	4	On line
INT-137•	INT	8	4	On line
INT-138	INT	8	4	On line
INT-139	INT	8	4	On line
INT-141	INT	8	4	On line
INT-142	INT	8	4	On line
INT-143	INT	8	4	On line
INT-144 o •	INT	8	4	On line
INT-145	INT	8	4	On line
INT-146	INT	8	4	On line

o = progress monitoring • = compliance monitoring o • = progress & compliance
shaded area = long-term monitoring

INT Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
INT-01	Production	5	6	On line
INT-02	Injection	5	4	On line
INT-03	Production	5	6	On line
INT-04	Production	5	6	On line
INT-05	Production	4	6	On line
INT-06	Production	4	6	Off line
INT-07	Production	4	6	On line
INT-08	Production	4	6	On line
INT-09	Production	4	6	On line
INT-10	Production	4	6	On line
INT-11	Production	4	6	On line
INT-12	Production	4	6	On line
INT-13	Production	3	6	On line
INT-14	Production	3	6	Off line
INT-15	Production	3	6	Plugged & Abandoned
INT-16	Production	3	6	Plugged & Abandoned
INT-17	Production	3	6	Plugged & Abandoned
INT-18	Production	3	6	Plugged & Abandoned
INT-19	Production	4	6	On line
INT-20	Prod./Inj.	5	6	On line
INT-21	Production	5	6	On line
INT-22 o •	Production	6	6	On line
INT-23	Production	6	6	On line
INT-24	Production	6	6	On line
INT-25	Production	6	6	Plugged & Abandoned

o = progress monitoring • = compliance monitoring o • = progress & compliance
shaded area = long-term monitoring

INT Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
INT-26•	Production	6	6	Off line, ready for P&A
INT-27	Production	6	6	Off line, ready for P&A
INT-28	Production	6	6	Off line, ready for P&A
INT-29	Production	6	6	Plugged & Abandoned
INT-30	Production	6	6	Plugged & Abandoned
INT-31	Production	7	6	Plugged & Abandoned
INT-32	Production	7	6	Plugged & Abandoned
INT-33	Production	7	6	Plugged & Abandoned
INT-55	Production	5	6	On line
INT-56A	Production	5	6	On line
INT-56B	Injection	5	6	Closed, ready for P&A
INT-57	Production	5	6	On line
INT-58	Production	4	6	On line
INT-59	Production	4	6	On line
INT-60	Production	4	6	On line
INT-61A	Production	4	6	On line
INT-61B	Injection	4	6	Closed, ready for P&A
INT-62A	Production	4	6	Off line, ready for P&A
INT-62B	Injection	4	6	Closed, ready for P&A
INT-63	Injection	4	6	On line
INT-64	Injection	4	6	On line
INT-65	Production	3	6	Plugged & Abandoned
INT-66	Injection	3	6	Plugged & Abandoned
INT-71	Injection	3	6	Plugged & Abandoned
INT-72	Injection	5	2	On line

o = progress monitoring • = compliance monitoring o• = progress & compliance
shaded area = long-term monitoring

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INT Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
INT-73	Injection	5	2	On line
INT-74	Injection	5	2	On line
INT-75	Injection	5	2	On line
INT-76	Injection	8	2	On line
INT-77	Injection	8	2	On line
INT-78	Injection	8	2	On line
INT-79	Injection	6	2	On line
INT-80	Injection	6	2	On line
INT-81	Injection	6	2	On line
INT-82	Injection	6	2	Plugged & Abandoned
INT-83	Injection	6	2	Plugged & Abandoned
INT-84	Injection	6	2	Plugged & Abandoned
INT-85	Injection	6	2	Plugged & Abandoned
INT-86	Injection	6	2	Plugged & Abandoned
INT-87	Injection	6	2	Plugged & Abandoned
INT-88	Injection	6	2	Plugged & Abandoned
INT-89	Injection	6	2	Plugged & Abandoned
INT-90	Injection	6	2	Plugged & Abandoned
INT-91	Injection	6	2	Plugged & Abandoned
INT-92	Injection	6	2	Plugged & Abandoned
INT-93	Injection	6	2	Plugged & Abandoned
INT-94	Injection	6	2	Plugged & Abandoned
INT-95	Injection	6	2	Plugged & Abandoned
INT-96	Injection	5	2	On line
INT-97	Injection	5	2	On line

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shaded area = long-term monitoring

INT Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
INT-98	Injection	5	2	On line
INT-99	Injection	3	2	Plugged & Abandoned
INT-100	Injection	3	2	Plugged & Abandoned
INT-201	Injection	6	2	Plugged & Abandoned
INT-202	Injection	4, inside INT-11 wall	2	Plugged & Abandoned
INT-203	Injection	4	2	On line
INT-204	Injection	4	2	On line
INT-205	Production	5	6	On line
INT-206	Production	5	6	On line
INT-207	Production	8	6	On line
INT-208	Production	8	6	On line
INT-209	Production	8	6	On line
INT-210	Production	8	6	On line
INT-211	Production	6	6	Off line, ready to P&A
INT-212	Production	5	6	On line
INT-213	Production	6	6	On line
INT-214•	Production	6	6	Off line, convert to monitor well long-term
INT-215	Production	5	6	On line
INT-216	Injection	8	6	On line
INT-217 o	Production	6	6	On line
INT-218	Injection	5	2	On line
INT-219	Injection	5	2	On line
INT-220	Injection	5	2	On line

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shaded area = long-term monitoring

INT Production and Injection Wells in Numerical Order

Well	Function	Location	Size	Status
INT-221	Injection	5	2	On line
INT-222	Injection	5	2	On line
INT-223	Injection	5	2	On line
INT-224	Injection	4	2	On line
INT-225	Injection	4	2	On line
INT-226	Injection	8, RD-1	2	On line
INT-227	Injection	8, RD-1	2	On line
INT-228	Prod./Inj.	4	6	On line
INT-229	Production	8, RD-1	6	On line
INT-230	Production	4	6	On line
INT-231	Production	5	6	On line
INT-232	Production	5	6	On line
INT-233 o	Production	5	6	On line
INT-234	Production	5	6	On line
INT-235	Production	8	6	On line
INT-236	Production	8	6	On line
INT-239	Injection	5	4	On line
INT-240	Injection	5	4	On line
INT-241	Injection	5	4	On line
INT-111	Injection	6	4	On line
INT-113	Injection	5	4	On line
INT-120 o	Production	4	4	On line
INT-133	Production	8	4	On line
INT-134 o	Production	8	4	On line

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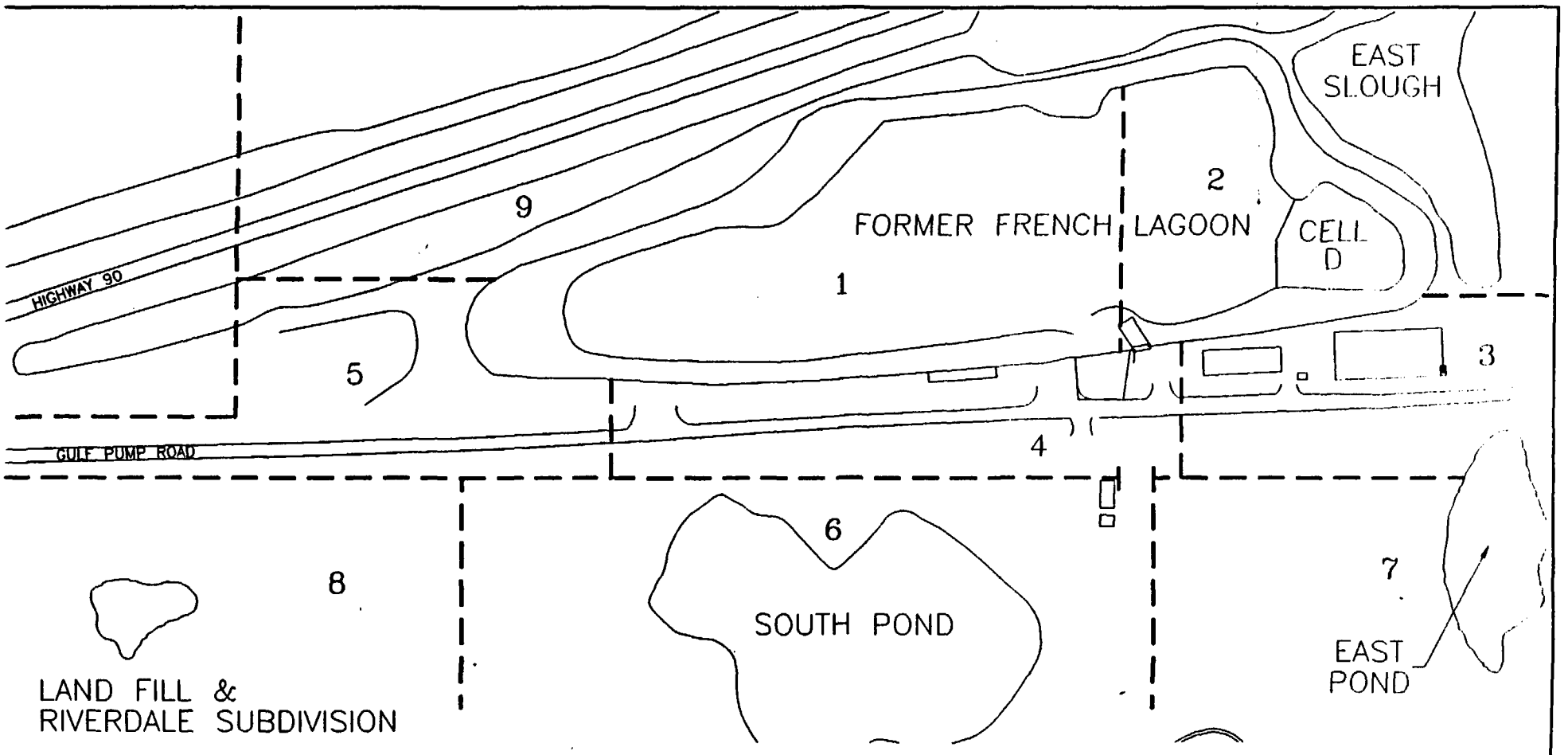
087780



BAYTOWN DRAFTING INC.
4008 HIGH BONDS BLVD.
BAYTOWN, TEXAS 77520

FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS

WELL STATUS
LOCATION MAP

NOVEMBER 19,1995

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Well Number	Surveyor	Comments
ERT-001	Geogram 2/92	INSIDE LAGOON (WEST END) 4"
ERT-001A	Geogram 2/92	INSIDE LAGOON (WEST END) 4"
ERT-002	Geogram 2/92	INSIDE LAGOON (WEST END) 4"
ERT-003	Geogram 2/92	INSIDE LAGOON (WEST END) 4"
ERT-004	ENSR Master Monitor Well list	INSIDE LAGOON (WEST END) 4"
ERT-004A	ENSR Master Monitor Well list	INSIDE LAGOON (WEST END) 4"
ERT-005	Becon 1/92	INSIDE LAGOON (WEST END) 4"
ERT-006	Geogram 2/92	INSIDE LAGOON (WEST END) 4"
ERT-007	Becon 1/92	INSIDE LAGOON GRID-9 4"
ERT-007A	ENSR Rpt. 11/88	Buried, Bectel INSIDE LAGOON GRID-9 4"
ERT-008	Geogram 2/92	INSIDE LAGOON GRID-9 4"
ERT-008A	Geogram 2/92	INSIDE LAGOON GRID-9 4"
ERT-009	Geogram 2/92	INSIDE LAGOON GRID-5 4"
ERT-009A	Geogram 2/92	INSIDE LAGOON GRID-5 4"
ERT-010	Geogram 2/92	INSIDE LAGOON GRID-5 4"
ERT-010A	ENSR Master Monitor Well list	INSIDE LAGOON GRID-5 4"
ERT-020	Becon 1/92	SOUTH EAST LOT (NEXT TO ROAD) 4"
ERT-021	Becon 1/92	SO LOT NEXT TO GUARD RAIL BY SP 4"
ERT-022	Becon 1/92	ON CIRCLE DRIVE IN FRONT OF SP 4"
ERT-023	Geogram 2/92	INSIDE SOUTH FENCE IN LANDFILL 4"
ERT-024	Geogram 2/92	2.29' stickup added 9/92 BY WW#3
ERT-025	ENSR Rpt. 11/88	NEXT TO WW#3
ERT-026	ENSR Rpt. 11/88	2.29' stickup added 9/92 BY WW#3 4"
ERT-027	ENSR Rpt. 11/88	2.29' stickup added 9/92 WEST END LANDFILL 4"
ERT-028	ENSR Rpt. 11/88	2.29' stickup added 9/92 BEHIND LANDFILL 4"
ERT-029	ENSR Rpt. 11/88	2.29' stickup added 9/92 BEHIND LANDFILL 4"
ERT-030	ENSR Rpt. 11/88	2.29' stickup added 9/92 BEHIND LANDFILL 4"
ERT-031	Map estimated	Buried
ERT-032	Map estimated	Buried
ERT-033	Geogram 2/92	INSIDE LAGOON EAST END 4" GROUND LEVEL
ERT-034	Geogram 2/92	INSIDE LAGOON EAST END 4" GROUND LEVEL
FLTG-001	Geogram 2/92	BEHIND SOUTH POND 4"
FLTG-002	Geogram 2/92	BEHIND SOUTH POND 4" BROKEN LID
FLTG-003	Geogram 2/92	BEHIND SOUTH POND 4"
FLTG-004	Geogram 2/92	BEHIND SOUTH POND 4"
FLTG-005	Geogram 2/92	Outside South Fence INSIDE SOUTH FENCE (WOOD BRIDGE)
FLTG-006	Geogram 2/92	Outside South Fence INSIDE SOUTH FENCE (WOOD BRIDGE)
FLTG-007	Geogram 2/92	MIDDLE SOUTH EAST LOT 4"
FLTG-008	Geogram 2/92	MIDDLE SOUTH EAST LOT 4"
FLTG-009	Geogram 2/92	EAST OF SO LOT (NEXT TO DRAINAGE DITCH) 4"
FLTG-010	Geogram 2/92	EAST OF SO LOT (NEXT TO DRAINAGE DITCH) 4"
FLTG-011	Geogram 2/92	INSIDE SOUTH FENCE (EAST SIDE) 4"
FLTG-012	Geogram 2/92	INSIDE SOUTH FENCE (EAST SIDE) 4"
FLTG-013	Geogram 2/92	OUTSIDE FENCE ON SOUTH EAST SIDE BY EAST SLOUGH 4"
FLTG-014	Geogram 2/92	OUTSIDE FENCE ON SOUTH EAST SIDE BY EAST SLOUGH 4"
FLTG-015	Geogram 2/92	SOUTH SIDE HWY 90 (EAST OF BRIDGE) 4"
GW-01	Map estimated	Not 90 unable to locate
GW-02	Geogram 1/94	North IND 138 4"
GW-03	Map estimated	Destroyed or Abandonded
GW-04	Map estimated	unable to locate
GW-05	Map estimated	North side of Hwy 90 off Sand Pit Rd. 4"

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4th Qtr '94

187782

Well Number	Surveyor	Comments
GW-06	Map estimated	Well destroyed
GW-06R	Map estimated	Well destroyed/REI 86
GW-07	Geogram 1/94	North Int 138 4"
GW-08	ENSR Master Monitor Well list	Well destroyed
GW-09	ENSR Master Monitor Well list	Well destroyed
GW-12	ENSR Master Monitor Well list	N of Hiway 90 4"
GW-13	ENSR Master Monitor Well list	N of Hiway 90 4"
GW-14	Map estimated	Well destroyed/REI 86
GW-14R	Map estimated	Well to replace GW-14 ~~20' by Hunt Club~~ Follow Paint marks
GW-15	Map estimated	N. of Hiway 90 4"
GW-16	Map estimated	N. of Hiway 90 4"
GW-17	ENSR Master Monitor Well list	next To MW#3 4"
GW-18	ENSR Master Monitor Well list	N.W Corner Maple & Cherry 2"
GW-19	ENSR Master Monitor Well list	Farthest well Behind Landfill 2"
GW-20	Map estimated	N.E Int 111
GW-21	Map estimated	Well removed and sealed - 4/9/84
GW-22	Map estimated	Rd Going to Ft 69 & to 30' to Left 2"
GW-23	ENSR Master Monitor Well list	End Land Fill Rd on Right
GW-24	Map estimated	
GW-25	Map estimated	Well destroyed / REI '86
INT-001	Becon 1/92	
INT-002	Becon 1/92	
INT-003	Becon 1/92	
INT-004	Becon 1/92	
INT-005	Becon 1/92	
INT-006	Becon 1/92	
INT-007	Becon 1/92	
INT-008	Becon 1/92	
INT-009	Becon 1/92	
INT-010	Becon 1/92	
INT-011	Becon 1/92	
INT-012	Becon 1/92	
INT-013	Becon 1/92	
INT-014	Becon 1/92	
INT-015	Becon 1/92	
INT-016	Becon 1/92	
INT-017	Becon 1/92	
INT-018	Becon 1/92	
INT-019	Becon 1/92	
INT-020	Becon 1/92	
INT-021	Becon 1/92	
INT-022	Becon 1/92	
INT-023	Becon 1/92	
INT-024	Becon 1/92	
INT-025	Becon 1/92	
INT-026	Becon 1/92	
INT-027	Becon 1/92	
INT-028	Becon 1/92	
INT-029	Becon 1/92	
INT-030	Becon 1/92	
INT-031	Becon 1/92	
INT-032	Becon 1/92	

23.5 24.

087783

Well Number	Surveyor	Comments
INT-033	Becon 1/92	
INT-055	Becon 1/92	
INT-056	Geogram 11/93	
INT-057		Orig. well 6", split prob. instal 4" - data for 4"
INT-058	Becon 1/92	
INT-059	Becon 1/92	
INT-059-P-1	Becon 1/92	N of Gulf Pump between fence & Rd 2"
INT-059-P-2	Becon 1/92	N of Gulf Pump between fence & Rd 2"
INT-059-P-3	Becon 1/92	N of Gulf Pump between fence & Rd 2"
INT-059-P-4	Becon 1/92	N of Gulf Pump between Fence & Rd 2"
INT-060	Becon 1/92	
INT-060-P-1	Becon 1/92	N of Gulf Pump between fence & Rd 2"
INT-060-P-2	Becon 1/92	N of Gulf Pump between Fence & Rd 2"
INT-060-P-3	Becon 1/92	N of Gulf Pump between Fence & Rd 2"
INT-060-P-4	Becon 1/92	N of Gulf Pump between Fence & Rd. 2"
INT-061	Becon 1/92	
INT-062	Becon 1/92	
INT-063	Becon 1/92	
INT-064	Becon 1/92	
INT-065	Becon 1/92	
INT-066	Geogram 11/93	
INT-071	Becon 1/92	
INT-072	Geogram 6/93	
INT-073	Geogram 6/93	
INT-074	Geogram 6/93	
INT-075	Geogram 6/93	
INT-076	Geogram 6/93	
INT-077	Geogram 6/93	
INT-078	Geogram 6/93	
INT-079	Geogram 6/93	
INT-080	Geogram 6/93	
INT-081	Geogram 6/93	
INT-082	Geogram 6/93	
INT-083	Geogram 6/93	
INT-084	Geogram 6/93	
INT-085	Geogram 6/93	
INT-086	Geogram 6/93	
INT-087	Geogram 6/93	
INT-088	Geogram 6/93	
INT-089	Geogram 6/93	
INT-090	Geogram 6/93	
INT-091	Geogram 10/93	
INT-092	Geogram 10/93	
INT-093	Geogram 10/93	
INT-094	Geogram 10/93	
INT-095	Geogram 10/93	
INT-096	Geogram 10/93	
INT-097	Geogram 10/93	
INT-098	Geogram 10/93	
INT-099	Geogram 10/93	
INT-100	Geogram 10/93	
INT-101	Becon 1/92	Inside north Fence on West End 4"

087784

Well Number	Surveyor	Comments
INT-102	Becon 1/92	N. of East end of Electric gate 4" GL.
INT-103	Becon 1/92	N. edge of Gulf Pump S of GWS 4" GL.
INT-104	Becon 1/92	South East Lot 4"
INT-105	Becon 1/92	middle South East Lot 4"
INT-106	Becon 1/92	South east Lot (next To Road 4" Ground Level
INT-107	Geogram 4/92	So. Lot next To SP 4"
INT-108	Becon 1/92	Inside Fence - South Side on Road 4"
INT-109	Becon 1/92	on circle Drive in Front of SP 4"
INT-110	Becon 1/92	Inside South Fence on Road 4"
INT-111	Becon 1/92	On Road west side of South Pond 4"
INT-112	Becon 1/92	on Road west Side of South Pond 4"
INT-113	Becon 1/92 Converted INJ.	West end of Perimeter Road S of INT 3 4"
INT-114	Becon 1/92	Gulf Pump Road @ west side of Chem Storage 4" GL
INT-115	Geogram 4/92	So. Lot next To SP 4"
INT-116	Geogram 4/92	N. of Hiway 90 on road to sand pit
INT-117	Geogram 4/92	No of Hiway 90 on road to sand pit
INT-118	Geogram 4/92	West end at point of property on Gulf Pump
INT-119	Geogram 4/92	So. Lot next To SP 4"
INT-120	Geogram 6/93	Converted to pumping well near O2 Tank
INT-121	Geogram 6/93	Drive in front of shop 4" GL
INT-122	Geogram 6/93	~4' S of Wall between Shop + Gate 4" G
INT-123	Geogram 6/93	Midway between Fence + Lagoon Gate GL 4"
INT-124	Geogram 6/93	~4' N of Fence between electric gate + Chem storage 4" G
INT-125	Geogram 6/93	~4' S. of Fence ~15' E. of Chem Stor. drive
INT-126	Geogram 6/93	~10' South of Fence ~ mid way between Electric gate + Chem Stor 4" G
INT-127	Geogram 6/93	IN Gulf Pump Road in front of Shop
INT-128	Geogram 6/93	IN Gulf Pump Road in front of Shop
INT-129	Geogram 6/93	Inside Lagoon Grid-22 4" Ground Level
INT-130	Geogram 6/93	Gulf Pump Rd. S. of Freeway 4" G.L.
INT-131	Geogram 6/93	Inside Lagoon East End 4" Ground Level
INT-132	Geogram 1/94	N. of Gulf Pump S of Fence across from RD1 4"
INT-133	Geogram 1/94 Converted	Production well in Landfill 4"
INT-134	Geogram 1/94 Converted	Production well in Landfill 4"
INT-135	Geogram 1/94	West end of Landfill 4"
INT-137	Geogram 1/94	West end of Landfill 4"
INT-138	Geogram 1/94	West end of Landfill 4"
INT-139	Geogram 1/94	middle of Landfill 4"
INT-201	Geogram 10/93	
INT-202	Geogram 10/93	
INT-203	Geogram 10/93	
INT-204	Geogram 10/93	
INT-205	Geogram 1/94	
INT-206	Geogram 1/94	
INT-207	Geogram 1/94	
INT-208	Geogram 1/94	
INT-209	Geogram 1/94	
INT-210	Geogram 1/94	
INT-211	Geogram 1/94	
MR-2	Geogram 11/93	Out side of Fence West end, N of Gulf Pump
MR-3	Geogram 11/93	" " " " " " " "
MR-4	Geogram 11/93	" " " " " " " "
MR-P3	Geogram 11/93	Behind Int 206 p West End 2"

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087785

Well Number	Surveyor	Comments
P-1	Map estimated	Buried
P-2	Map estimated	Buried
P-3	Geogram 2/92	Inside N Fence in Road Ground Level 2"
P-4	Geogram 2/92	Inside N Fence in Road Ground Level 2"
P-5	Geogram 2/92	Inside N Fence in Road Ground Level 2"
P-6	Geogram 2/92	Inside Lagoon Grid - ? 2"
P-101/MR-1	Geogram 1/94	P-101 same well as MR-1 East GW2 4" plastic pipe to left cross pipeline 23.68
REI-01	ENSR Master Monitor Well list	Main Road thru Landfill 2"
REI-03-01	Geogram 4/92	Well destroyed South Lot 4" no cap
REI-03-02	Geogram 4/92	South Lot 4" no cap
REI-03-03	Geogram 4/92	South Lot 4" no cap
REI-03-04	Geogram 4/92	South Lot
REI-03-05	Map estimated	Abandoned
REI-04-01	Map estimated	unable to locate
REI-04-02	Map estimated	unable to locate
REI-05	ENSR Master Monitor Well list	East ERT 28 in Landfill
REI-06-01	ENSR Master Monitor Well list	Filled in/casing visible P+A Behind O2 Tank 4" GL
REI-06-02	ENSR Master Monitor Well list	Filled in/casing visible P+A East of Shop 4" GL
REI-07	ENSR Master Monitor Well list	South East Lot (next to Road) 4" no vault lid
REI-08	ENSR Master Monitor Well list	Well destroyed Last well before pipeline 235
REI-09	ENSR Master Monitor Well list	Well destroyed
REI-10-1	ENSR Master Monitor Well list	P&A by ENSR in 1989?
REI-10-2	Geogram 2/92	Outside of Fence, North Gulf Pump west of west gate 4"
REI-10-3	Geogram 2/92	at well under escape ladder on SW corner 4" GL
REI-10-4	ENSR Master Monitor Well list	Well destroyed
REI-11	ENSR Master Monitor Well list	on circle drive in front of SP 4"
REI-12-1	Geogram 4/92	North Hwy 90, west side of Road at NE corner of lake 4"
REI-12-2	Geogram 4/92	" " " " " " " " " " 4"
REI-P-10-2	ENSR Master Monitor Well list	Well Non Existent /MJD
REI-P-10-3	Becon 1/92	Well Non Existent /MJD
REI-P-10-4	ENSR Master Monitor Well list	Well destroyed
RS-01	Map estimated	
RS-02	Map estimated	
RS-05	Map estimated	
RS-16	Map estimated	Same as new well GW-25
RS-20	Map estimated	
RS-21	Map estimated	
RS-22	Map estimated	
RS-24	Map estimated	
RS-28	Map estimated	
RS-51	Map estimated	
RS-53	Map estimated	
RS-56	Map estimated	
RS-57	Map estimated	
RS-58	Map estimated	
RS-61	Map estimated	
RS-62	Map estimated	
RS-66	Map estimated	
RS-67	Map estimated	
RS-68	Map estimated	Same as well GW-10
RS-69	Map estimated	
RS-70	Map estimated	

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Well Number	Surveyor	Comments
RS-71	Map estimated	
RS-72	Map estimated	
RS-76	Map estimated	
RS-84	Map estimated	
RS-85	Map estimated	
RS-86	Map estimated	
RS-87	Map estimated	Same as well GW-11
RS-88	Map estimated	
RS-89	Map estimated	
S1-001	Becon 1/92	
S1-002	Becon 1/92	
S1-003	Becon 1/92	
S1-004	Becon 1/92	
S1-005	Becon 1/92	
S1-006	Becon 1/92	
S1-007	Becon 1/92	
S1-008	Becon 1/92	
S1-009	Becon 1/92	
S1-010	Becon 1/92	
S1-011	Geogram 9/93	
S1-012	Becon 1/92	
S1-013	Becon 1/92	
S1-014	Becon 1/92	
S1-015	Becon 1/92	
S1-016	Becon 1/92	
S1-017	Becon 1/92	
S1-018	Becon 1/92	
S1-019	Becon 1/92	
S1-020	Becon 1/92	
S1-021	Becon 1/92	
S1-022	Geogram 11/93	
S1-023	Becon 1/92	
S1-024	Becon 1/92	
S1-025	Becon 1/92	
S1-026	Becon 1/92	
S1-027	Geogram 11/93	
S1-028	Becon 1/92	
S1-029	Becon 1/92	
S1-030	Becon 1/92	
S1-031	Becon 1/92	
S1-032	Becon 1/92	
S1-033	Becon 1/92	
S1-034	Becon 1/92	
S1-035	Becon 1/92	
S1-036	Becon 1/92	
S1-037	Becon 1/92	
S1-038	Becon 1/92	
S1-039	Becon 1/92	
S1-040	Becon 1/92	
S1-041	Becon 1/92	
S1-042	Becon 1/92	
S1-043	Becon 1/92	

087787

Well Number	Surveyor		Comments
S1-044	Becon 1/92		
S1-045	Becon 1/92		
S1-046	Becon 1/92		
S1-047	Becon 1/92		
S1-048	Becon 1/92		
S1-049	Becon 1/92		
S1-050	Becon 1/92		
S1-050-P-1	Becon 1/92		Inside South Fence on Road 2" West End
S1-050-P-2	Becon 1/92		Inside South Fence on Road 2" West End
S1-050-P-3	Becon 1/92		Inside South Fence on Road 2" West End
S1-051	Becon 1/92		
S1-051-P-1	Becon 1/92		Inside South Fence on Road 2"
S1-051-P-2	Becon 1/92		Inside South Fence on Road 2"
S1-051-P-3	Becon 1/92		Inside South Fence on Road 2"
S1-052	Becon 1/92		
S1-053	Becon 1/92		
S1-054	Becon 1/92		
S1-055	Becon 1/92		
S1-056	Becon 1/92		
S1-057	Becon 1/92		
S1-058	Becon 1/92		
S1-059	Becon 1/92		
S1-060	Becon 1/92		
S1-101	Becon 1/92	Converted.	West end near fence (Inside) off perimeter Road 4"
S1-102	Becon 1/92		INSIDE Ditch N. of Gulf Pump ~100' West of West gate 4"
S1-103	Becon 1/92		~5' N. of West end of Chem. Storage 4" G.L.
S1-104	Becon 1/92		SE corner of Bldg est drive. 4" G.L.
S1-105	Becon 1/92	Left	West side Chemical Unloading Dr GWT 4"
S1-106	Becon 1/92		Middle South East Lot 4"
S1-107	Becon 1/92		South Parking Lot 4"
S1-108	Becon 1/92		Middle South East Lot 4"
S1-109	Becon 1/92		Between Guard Rail & So Pond 4"
S1-110	Becon 1/92		On Road next To Circle Drive in Front of SP 4"
S1-111	Becon 1/92		Between Guard Rail & SP (West end) 4"
S1-112	Becon 1/92		Inside South Fence on Road To Landfill 4"
S1-113	Becon 1/92		End of Road Between SP & Landfill 4"
S1-114	Becon 1/92		So. Lot (middle) 4"
S1-115	Geogram 4/92		N of Hwy 90 on Sand Pit Road - West side 4"
S1-116	Geogram 4/92		N of Hwy 90 on Sand Pit Road - East side 4"
S1-117	Geogram 4/92		N of Hwy 90 inside East side on Sand pit road 4"
S1-118	Geogram 4/92		West end of property N. side Gulf Pump 4"
S1-119	Geogram 6/93		Inside Lagoon Grid-22 4" Ground Level
S1-120	Geogram 6/93		Between Wall and Bldg NW Corner 4" GL
S1-121	Geogram 6/93		" " " " ~25' E. of S1120 4" GL
S1-122	Geogram 6/93		" " " " ~75' E. of S1120 4" GL
S1-123	Geogram 6/93		Gulf Pump - South of West corner of Bldg 4" GL
S1-124	Geogram 6/93		Inside Lagoon Front of ACa 4" Ground Level
S1-125	Geogram 6/93		Inside Lagoon Right side Apr Lamp
S1-126	Geogram 6/93		Inside Lagoon East End 4" Ground Level
S1-127	Geogram 6/93	4" GL	N 25' E of S1129
S1-128	Geogram 6/93	4" GL	N. of T101 Area - in drive ~10' E of pipe rack
S1-129	Geogram 6/93	4" GL	N 30' E of S1128

35 S1-106A
S1-109A

087788

Well Number	Surveyor	Comments
S1-130	Geogram 6/93	EAST PARKING LOT GROUND LEVEL 4"
S1-131	Geogram 6/93	EAST PARKING LOT GROUND LEVEL 4"
S1-132	Geogram 6/93	EAST PARKING LOT GROUND LEVEL 4"
S1-133	Geogram 6/93 CONVERTED	Injection WELL EAST PARKING LOT 4"
S1-134	Geogram 6/93	EAST PARKING LOT GROUND LEVEL 4"
S1-135	Geogram 1/94	WEST END of LANDFILL 4"
S1-137	Geogram 1/94	WEST END OF LANDFILL 4"
S2-101	Geogram 11/93	Deep Well So. Lot NEXT TO SP
SG-1	Geogram 2/92	Lagoon, Cell E
SG-2	Geogram 2/92	Lagoon, Cell F
SG-3	Geogram 2/92	South Pond
SG-4	Geogram 2/92	East Pond
SG-5	Geogram 2/92	East Slough
W-01	Becon 1/92	INSIDE N FENCE IN ROAD GROUND LEVEL 6"
W-02	Geogram 2/92	INSIDE N FENCE IN ROAD GROUND LEVEL 4"
W-03	Geogram 2/92	INSIDE N FENCE IN ROAD 4"
W-04	Geogram 2/92	INSIDE N FENCE ON ROAD 4"
W-05	Geogram 2/92	INSIDE N FENCE ON ROAD 4"
W-06	Map estimated	Well buried INSIDE N FENCE GROUND LEVEL 4"
W-07	Geogram 2/92	INSIDE LAGOON GRID-4 4"

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Monitor Wells Not Listed

INT 136 4"

INT 140 (Converted to Injection 10/95)

INT 141

INT 142

INT 143

INT 144

} all 4" ground Level @ RD 1 + RD 2

INT 145 4"

INT 146 4"

B

087789

ATTACHMENT 4B

Phosphorous Dosing of Injection Wells

087790

Phosphorous Dosing of Injection Wells

Well	Gal	11/8	Initials	11/15	Initials	11/22	Initials	11/29	Initials	12/6	Initials	12/13	Initials
S1-133	1	1755	EO	1715	EO	1325	EO	1120	EO				
S1-20	1	1740	EO	1635	EO	1625	EO	1530	EO				
S1-18	1	1750	EO	1705	EO	1330	EO	1125	EO				
S1-68	1	1713	EO	1640	EO	1335	EO	1127	EO				
S1-31	1	1540	EO	1400	EO	1350	EO	1345	EO				
S1-101	1	1555	EO	1310	EO	1345	EO	1150	EO				
INT-143	1	1720	EO	1645	EO	1620	EO	1535	EO				
INT-228	1			1650	EO								
INT-224	1	1735	EO	1655	EO	1615	EO	1540	EO				
INT-225	1	1730	EO	1700	EO	1600	EO	1543	EO				
INT-203	1	1723	EO	1630	EO	1640	EO	1545	EO				
INT-2	1	1550	EO	1350	EO	1400	EO	1340	EO				
INT-72	1	1650	EO	1415	EO	1435	EO	1345	EO				
INT-73	1	1525	EO	1315	EO	1405	EO	1128	EO				
INT-74	1	1635	EO	1427	EO	1450	EO	1399	EO				
INT-75	1	1642	EO	1435	EO	1500	EO	1400	EO				
INT-97	1	1600	EO	1340	EO	1350	EO	1210	EO				
INT-98	1	1620	EO	1350	EO	1355	EO	1207	EO				
INT-113	2	1450	EO	1330	EO	1425	EO	1200	EO				
INT-218	1	1610	EO	1345	EO	1430	EO	1205	EO				
INT-219	1	1700	EO	1420	EO	1440	EO	1415	EO				
INT-220	1	1646	EO	1410	EO	1445	EO	1405	EO				
INT-221	1	1500	EO	1335	EO	1405	EO	1155	EO				
INT-226	1	1415	EO	1540	EO	1543	EO	1445	EO				
INT-227	1	1410	EO	1535	EO	1547	EO	1450	EO				
INT-223	1	1640	EO	1425	EO	1450	EO	1345	EO				
INT-239	2	1510	EO	1320	EO	1420	EO	1130	EO				
INT-240	2	1515	EO	1322	EO	1415	EO	1135	EO				
INT-241	2	1520	EO	1325	EO	1410	EO	1140	EO				
INT-76	1	1355	EO	1500	EO	1510	EO	1420	EO				
INT-77	1	1350	EO	1505	EO	1515	EO	1420	EO				
INT-78	1	1341	EO	1510	EO	1520	EO	1420	EO				
INT-79	1	1425	EO	1615	EO	1530	EO	1505	EO				
INT-80	1	1435	EO	1625	EO	1550	EO	1507	EO				
INT-81	1	1000 (11/9)	EO	1620	EO	1555	EO	1510	EO				
INT-111	1	1330	EO	1610	EO	1533	EO	1500	EO				
INT-140	1	1420	EO	1545	EO	1540	EO	1445	EO				
INT-216	1	1405	EO	1530	EO	1537	EO	1440	EO				
INT-222	1	1400	EO	1520	EO	1505	EO	1425	EO				

5

5.0 GROUNDWATER TREATMENT PLANT

5.1 Summary of Activities

November operation continued on from October scheduling with no significant changes or issues arising.

Water from Cell D is being introduced into the plant to begin the first phase of shut-down for demobilization.

There have been no carbon transfers for this reporting period.

There were no major mechanical failures for the month of November.

There have been no discharge excursions for this reporting period.

Total flows for November, 1995:

Water discharged to the San Jacinto River - 3,736,100 gallons

Water discharged to the Lagoon - 0

Sludge discharged to the Lagoon - 27,000 gallons

Water processed through the GWT - 3,780,900 metered gallons

Water discharged to the South Pond - 0

Water blended passed Carbon Filter - 3,858,800 gallons

Water treated through Carbon Filter - 223,600 gallons

Water processed from Cell D to GWT plant: unmetered - approximately 181,000

Cell D injection at S1-1 through S1-9: metered - 0

5.2 Inoculum/Nutrient Addition

The following have been introduced into the bioreactors/clarifier:

Nutrients:
270 gallons Diammonium Phosphate

Microbes:
26 oz. French Limited Isolated Microbes

Coagulant:
6.0 gallons Percol 778 Cationic Polymer

5.3 Maintenance

Table 5-1 lists the preventive maintenance items performed in November.

5.4 Operating Data

Table 5-2 summarizes the laboratory analysis of the treated water discharged to the San Jacinto River.

TABLE 5-1

Preventive Maintenance

Day	Action
November 7	Completed safety inspection of all electrical equipment and extension cords.
November 9	Changed air filters in compressors C and D.
November 10	Changed out R-1 carbon canister.
November 14	Lubed all pumps and valves in GWT.
November 15	Lubed and changed air filters in Blowers 1 and 3.
November 17	Changed filters in central filter.
November 21	Rotated SALA pumps.
November 22	Lubed gate rollers and locks.
November 29	Lubed and changed air filter in Blower #2.

TABLE 5-2
Treated Water Results Summary

Collected	Set No.	pH		TSS		TOC		O&G		Benzene		Chlor HC's		Total PCBs		Napthalene	
		(6-9)		5 PPM		55 PPM		15 PPM		150 PPB		500 PPB		0.65 PPB		300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-May-95	M03A0330	7.63		1.		12.1		2.5		2.5		177.		.16		5.	
4-May-95	M03A0331	7.91		4.		12.5		2.5		2.5		222.		.16		5.	
8-May-95	M03A0332	7.95		4.		11.3		2.5		2.5		228.		.16		5.	
11-May-95	M03A0334	7.97		4.		10.9		2.5		2.5		235.		.16		5.	
15-May-95	M03A0333	7.87		8.		13.7		2.5		2.5		209.		.16		5.	
18-May-95	M03A0335	7.73		6.		11.		2.5		6.		374.		.16		5.	
22-May-95	M03A0336	7.88		1.		31.		2.5		6.		274.		.16		5.	
29-May-95	M03A0337	7.76		1.		45.		2.5		6.		227.		.16		5.	
5-Jun-95	M03A0338	7.53	7.8	.5	3.3	12.1	17.7	2.5	2.5	2.5	3.7	189.	237	.16	.16	5.	5.
12-Jun-95	M03A0339	7.78	7.8	1.	3.3	45.8	21.5	2.5	2.5	2.5	3.7	188.	238	.16	.16	5.	5.
19-Jun-95	M03A0440	7.68	7.8	5.	3.4	7.	20.9	2.5	2.5	2.5	3.7	144.	230	.16	.16	5.	5.
26-Jun-95	M03A0441	7.71	7.8	1.	3.1	9.1	20.6	2.5	2.5	2.5	3.7	128.	219	.16	.16	5.	5.
2-Jul-95	M03A0442	7.47	7.7	.5	2.7	6.7	20.2	2.5	2.5	2.5	3.7	180.	213	.16	.16	5.	5.
10-Jul-95	M03A0343	7.76	7.7	5.	2.3	5.2	19.2	2.5	2.5	2.5	3.7	182.	210	.16	.16	5.	5.
17-Jul-95	M03A0344	7.75	7.7	3.	2.	7.6	18.8	2.5	2.5	2.5	3.3	181.	188	.16	.16	5.	5.
24-Jul-95	M03A0345	7.55	7.7	.5	1.9	8.2	16.3	2.5	2.5	5.	3.2	479.	211	.16	.16	5.	5.
31-Jul-95	M03A0346	7.64	7.7	.5	1.9	2.5	11.6	7.8	3.1	5.	3.1	380.	228	.16	.16	5.	5.
7-Aug-95	M03A0347	7.55	7.7	2.	2.1	6.4	10.9	2.5	3.1	5.	3.3	536.	266	.16	.16	5.	5.
14-Aug-95	M03A0348	7.6	7.6	2.	2.2	7.3	6.7	2.5	3.1	5.	3.6	289.	278	.16	.16	5.	5.
21-Aug-95	M03A0349	7.55	7.6	1.	1.7	7.6	6.7	2.5	3.1	5.	3.9	261.	291	.16	.16	5.	5.
28-Aug-95	M03A0350	7.67	7.6	1.	1.7	8.7	6.7	2.5	3.1	5.	4.2	223.	301	.16	.16	5.	5.
4-Sep-95	M03A0351	7.7	7.6	1.	1.8	9.	6.9	2.5	3.1	5.	4.4	317.	316	.16	.16	5.	5.
11-Sep-95	M03A0352	7.54	7.6	1.	1.3	10.4	7.5	2.5	3.1	2.5	4.4	137.	311	.16	.16	5.	5.
18-Sep-95	M03A0353	7.74	7.6	1.	1.1	11.	7.9	2.5	3.1	2.5	4.4	180.	311	.32	.18	5.	5
25-Sep-95	M03A0354	7.57	7.6	3.	1.4	13.7	8.5	2.5	3.1	2.5	4.2	148.	275	.32	.20	5.	5
2-Oct-95	M03A0355	8.09	7.7	5.	1.9	9.5	9.3	2.5	2.5	2.5	3.9	109.	244	.32	.21	5.	5
9-Oct-95	M03A0356	8.26	7.7	3.	2.0	9.3	9.6	.5	2.3	2.5	3.6	170.	204	.32	.23	5.	5
16-Oct-95	M03A0357	8.06	7.8	1.	1.9	7.6	9.6	2.5	2.3	5.	3.6	332.	209	.32	.25	5.	5
23-Oct-95	M03A0358	8.23	7.9	1.	1.9	7.8	9.7	.5	2.1	2.5	3.3	79.	188	.32	.27	5.	5
30-Oct-95	M03A0359	8.23	7.9	3.	2.1	12.6	10.1	.5	1.8	2.5	3.1	167.	182	.32	.28	5.	5
6-Nov-95	M03A0360	8.06	8.0	1.	2.1	13.	10.5	2.5	1.8	2.5	2.8	143.	163	.32	.30	5.	5
13-Nov-95	M03A0361	7.95	8.0	1.	2.1	10.9	10.6	2.5	1.8	2.5	2.8	187.	168	.32	.32	5.	5
20-Nov-95	M03A0362	8.1	8.1	.5	2.1	9.5	10.4	.5	1.6	2.5	2.8	236.	175	.32	.32	5.	5
27-Nov-95	M03A0363	8.16	.8	4.	2.2	7.7	9.8	.5	1.4	2.5	2.8	114.	171	.32	.32	5.	5

Chlorinated hydrocarbons value is the sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

TABLE 5-2 (Continued)
Treated Water Results Summary

Collected	Set No.	As 150 PPB		Ba 1000 PPB		Cd 50 PPB		Cr 500 PPB		Cu 15 PPB		Pb 66 PPB		Mn 300 PPB		Hg 1 PPB		Ni 148 PPB		Se 20 PPB		Ag 5 PPB		Zn 162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-May-95	M03A0330	16.8		106.		1.1		.7		.7		.5		6.8		.1		8.5		.8		.5		.2	
4-May-95	M03A0331	21.		149.		1.1		5.9		1.		.5		70.4		.1		7.6		.8		.5		16.2	
8-May-95	M03A0332	16.		126.		.1		1.		1.6		.5		6.		.1		5.		1.3		.2		4.	
11-May-95	M03A0334	17.		158.		.1		3.		.9		.5		22.		.1		6.		1.3		.2		5.	
15-May-95	M03A0333	17.		141.		.1		2.		1.		.5		21.		.1		5.		1.3		.2		4.	
18-May-95	M03A0335	18.		122.		.1		.2		.3		.5		4.		.1		3.		1.3		.2		1.5	
22-May-95	M03A0336	14.		130.		.1		1.		.5		.5		9.		.1		5.		1.3		.2		7.	
29-May-95	M03A0337	16.		176.		.1		2.		.3		.5		27.		.1		1.		2.8		.2		4.	
5-Jun-95	M03A0338	12.	16.4	191.	144	.1	.3	2.	2.	1.	.8	.5	.5	18.	20.5	.1	.1	4.	5.	1.3	1.3	.2	.2	5.	5.2
12-Jun-95	M03A0339	13.	16.	204.	155	.1	.2	1.	2.	1.	.8	.5	.5	2.5	20.	.1	.1	4.5	4.6	1.3	1.4	.2	.2	3.	5.5
19-Jun-95	M03A0340	14.	15.2	213.	162	.1	.1	1.	1.5	.8	.8	.5	.5	6.	12.8	.1	.1	5.	4.3	1.3	1.4	.2	.2	1.5	3.9
26-Jun-95	M03A0341	15.	15.1	155.	166	.1	.1	.7	1.4	.7	.7	4.	.9	2.	12.4	.1	.1	4.	4.2	1.3	1.4	.2	.2	6.	4.1
2-Jul-95	M03A0342	17.	15.1	122.	162	.1	.1	1.5	1.3	.5	.7	1.	.9	10.	11.1	.1	.1	5.	4.1	1.5	1.4	.2	.2	6.	4.2
10-Jul-95	M03A0343	13.	14.7	173.	165	.2	.1	.7	1.1	.9	.7	.5	.9	2.	8.9	.1	.1	5.	4.1	1.2	1.4	.2	.2	5.	4.3
17-Jul-95	M03A0344	13.	14.1	172.	171	.1	.1	.9	1.2	1.	.7	.5	.9	2.5	8.8	.1	.1	4.8	4.3	1.2	1.4	.2	.2	2.9	4.5
24-Jul-95	M03A0345	18.	14.6	175.	176	.1	.1	.7	1.2	.9	.8	.5	.9	1.3	7.9	.1	.1	6.6	4.4	1.2	1.4	.2	.2	5.5	4.3
31-Jul-95	M03A0346	12.	14.1	193.	178	.1	.1	.9	1.	.9	.8	2.8	1.2	5.2	5.5	.1	.1	4.6	4.8	1.1	1.2	.2	.2	3.7	4.3
7-Aug-95	M03A0347	17.	14.7	204.	179.	1.	.2	1.5	1.	.9	.8	.5	1.2	6.6	4.2	.1	.1	5.1	5.	1.2	1.2	.2	.2	7.8	4.6
14-Aug-95	M03A0348	15.	14.9	202.	179	.1	.2	.2	.9	.9	.8	.5	1.2	5.3	4.5	.1	.1	2.8	4.8	1.2	1.2	.2	.2	6.8	5.
21-Aug-95	M03A0349	13.	14.8	190.	176.	.1	.2	.2	.8	.9	.8	.5	1.2	1.3	4.	.1	.1	4.	4.7	1.2	1.2	.2	.2	.5	4.9
28-Aug-95	M03A0350	12.	14.4	204.	182	.1	.2	.9	.8	.9	.8	.5	.8	4.4	4.3	.1	.1	3.7	4.6	1.2	1.2	.2	.2	3.3	4.6
4-Sep-95	M03A0351	12.	13.9	209.	191	.1	.2	1.3	.8	2.3	1.	.5	.8	6.4	3.9	.1	.1	5.1	4.6	1.2	1.1	.2	.2	12.	5.3
11-Sep-95	M03A0352	24.	15.1	162.	190	.1	.2	.2	.7	.9	1.	.5	.8	3.7	4.1	.1	.1	3.8	4.5	1.2	1.1	.2	.2	8.8	5.7
18-Sep-95	M03A0353	19.	15.8	165.	189	.1	.2	.6	.7	.9	1.	.5	.8	2.6	4.1	.1	.1	4.	4.4	1.2	1.1	.2	.2	2.9	5.7
25-Sep-95	M03A0354	25.	16.6	145.	186.	1.	.3	1.5	.8	1.7	1.1	.5	.8	5.5	4.6	.1	.1	5.1	4.2	1.2	1.1	.2	.2	11.3	6.3
2-Oct-95	M03A0355	20.	17.4	168.	183	.1	.3	2.1	.9	9.1	2.	.5	.5	7.5	4.8	.1	.1	10.2	4.9	1.2	1.2	.2	.2	4.8	6.5
9-Oct-95	M03A0356	16.	17.3	151.	177	.3	.2	1.2	.9	1.2	2.1	.5	.5	2.5	4.4	.1	.1	3.7	4.7	.9	1.1	.6	.2	1.2	5.7
16-Oct-95	M03A0357	16.	17.4	188.	176	.2	.2	.2	.9	.6	2.	.5	.5	3.	4.1	.1	.1	2.	4.6	2.	1.2	.5	.2	10.	6.1
23-Oct-95	M03A0358	15.	17.7	188.	178	.2	.2	.2	.9	1.2	2.1	.5	.5	5.	4.5	.1	.1	1.	4.3	1.	1.2	.3	.2	3.5	6.4
30-Oct-95	M03A0359	14.6	18.	187.	174	.2	.2	2.	1.	.6	2.	.5	.5	25.	6.8	.1	.1	4.	4.3	.8	1.2	.3	.3	2.5	6.3
6-Nov-95	M03A0360	13.	18.1	204.	173	.2	.2	2.	1.1	.6	1.9	.5	.5	34.	9.9	.1	.1	4.	4.2	.8	1.1	.3	.3	3.	5.3
13-Nov-95	M03A0361	17.	17.3	183.	175	.2	.3	.2	1.1	.6	1.8	.5	.5	6.	10.1	.1	.1	1.	3.9	3.	1.3	.3	.3	7.	5.1
20-Nov-95	M03A0362	13.	16.6	219.	181	.2	.3	.2	1.1	1.3	1.9	.5	.5	18.	11.8	.1	.1	4.	3.9	4.	1.6	.3	.3	5.	5.4
27-Nov-95	M03A0363	11.	15.1	224.	190	.1	.2	1.6	1.1	2.6	2.	.5	.5	24.	13.9	.1	.1	4.	3.8	3.6	1.9	.3	.3	8.6	5.1

Metals values in PPB.

6.0 AMBIENT AIR MANAGEMENT

Ambient air quality management continued on an "as-needed" basis to protect the environment, human health, and site workers.

6.1 Summary of Activities

Collected and analyzed three sets of ambient air samples; completed a detailed audit of AATS's ambient air program; sent November samples to Keystone.

Sampled the ambient air in all work areas several times per shift and on a random "spot-check" basis; there were no levels of volatile organic compounds which required response action. Sampled ambient air in special work areas where burning and/or welding was planned. Sampled ambient air continuously in areas where exposure could occur and where confined space work occurred.

6.2 Problems and Response Action

Problem	Response Action
Calibrate portable vapor meters.	Train operators to calibrate; refurbish all meters.
Sampling "hot" wells.	Require respirator use when sampling "hot" wells.
Ambient air quality in all work areas.	Check all work areas with portable meter several times per day.
H_2S levels in some well vaults.	Vent vault and purge with air before working in the vaults.

Variable results on time-integrated samples.	Analyze duplicate samples at two laboratories; evaluate QAQC in detail; conduct lab audits.

6.3 Problems Resolved

Problem	Response Action
Variable results on time-integrated samples.	Analyze duplicate samples at two laboratories; evaluate QAQC in detail; conducted lab audits. Switched to Keystone..

6.4 On-going Events/Activities

Measure ambient air quality in all work areas several times per day.

Conduct periodic time-integrated sampling in all major work areas.

Require respiratory protection when sampling "hot" wells.

Conduct necessary air sampling and analyses to issue "burn" permits.

Closely monitor ambient air quality in the vicinity of new projects/activities.

Conduct respirator fit tests on all employees.

Follow-up on AATS response action items.

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7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Summary of Activities

7.1.1 Sampling

One set of personal air monitoring samples were collected in November. The following is a summary of current routine and special air matrix code sample specifics:

MATRIX CODE	SAMPLE SPECIFICS
M01D	TF at three locations

TF = Tenax® front tube

Table 7-1 is a summary of the air, soil and water samples collected during the month of November.

7.1.2 Data Validation Activities Summary

7.1.2.1 Treated Water Samples

Data validation was completed for sample sets M03A0359, M03A0360, M03A0361 and M03A0362. These samples were collected between October 30, 1995 and November 20, 1995. QC failures are summarized in Table 7-2. Completeness values are summarized in Tables 7-3 through 7-7.

7.1.2.2 Groundwater Samples

Level I data validation was completed for the monthly groundwater monitoring sample sets collected in November. There were no significant analytical QC failures on these sample data.

7.1.2.3 Other Samples

Although the analytical QA/QC data for the monthly personnel air monitoring samples were within QC limits, the values were not consistent with historical data. See section 7.2.2.1 for an explanation of the QA/QC issues with regards to these samples.

7.2 Data Validation QC Summary and Discussion

7.2.1 Level I and Level II QC Philosophy

Precision, accuracy and completeness are the numerical Data Quality Objectives (DQOs) established for the French Project by the Quality Assurance Plan (QAP). The intent of the data validation process is to verify that the documentation and quality control data provided by the laboratory properly substantiate the required data quality. For purposes of data validation procedures, the QAP defines two QC levels: Level I and Level II. Level I data validation is specified for process control and progress monitoring sample data validation and Level II data validation is specified for remediation verification sample results and treated water discharge sample results.

7.2.2 QA Issues

7.2.2.1 Personnel Air Monitoring QC Issues

Personnel air monitoring samples (TO-1/Tenax) collected between August and November were partially unusable because of analytical QC failures. These failures are as follows :

- Surrogate recoveries were outside QC limits.
- Internal standard response areas were outside QC limits.
- Field blanks contained concentrations of target compounds above acceptable levels.
- Tube conditioning blanks contained concentrations of target compounds above acceptable levels.
- Target compound concentrations in samples much greater than historical values. These samples were considered to be contaminated by a source outside the FLTG site.

A series of corrective actions were taken to rectify these issues. Sampling pumps were examined and re-calibrated, and sampling procedures were reiterated to the sampling technicians at the site. The lab performed an internal audit to examine TO-1 tube storage, preparation, quality control and shipping procedures.

The internal lab audit initially found no problems. However, some changes were made to tube storage and shipping procedures. A summa canister sample was collected in the sample storage refrigerator at the lab. The preliminary results of this analysis indicated somewhat elevated levels of methylene chloride and acetone. A new refrigerator has been purchased for sample storage. Also, each adsorbent tube is now stored and shipped within an individual airtight vessel which contains charcoal and silica gel. This will help eliminate the possibility of contamination in storage and shipment. The lab has be very responsive in rectifying all QA/QC issues. Corrective action letters are included as Attachments 7-A and 7-B.

An audit was performed at the analytical laboratories by FLTG personnel on December 5th and 6th, 1995. A full audit report will be submitted in January, 1996. An audit summary will be included in the December, 1995 monthly report.

TABLE 7-1

Samples Collected - November, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M01D006201	Personal air monitoring	WTP Operator	11/16	11/17	Y	A
M01D006202	Personal air monitoring	Well Maint.	11/16	11/17	Y	A
M01D006203	Personal air monitoring	TOC Bldg.	11/16	11/17	Y	A
M03A036001	River discharge	CF Out	11/06	11/07	Y	A
M03A036101	River discharge	CF Out	11/13	11/15	Y	A
M03A036201	River discharge	CF Out	11/20	11/22	N	A
M03A036301	River discharge	CF Out	11/27	11/28	N	A
M04B007501	GW monitoring	S1-106A	11/01	11/02	Y	A
M04B007502	GW monitoring	S1-108A	11/01	11/02	Y	A
M04B007503	GW monitoring	ERT-022	11/01	11/02	Y	A
M04B007504	GW monitoring	INT-108	11/01	11/02	Y	A
M04B007601	GW monitoring	INT-101	11/01	11/02	Y	A
M04B007602	GW monitoring	S1-102	11/01	11/02	Y	A
M04B007603	GW monitoring	FLTG-007	11/01	11/02	Y	A
M04B007604	GW monitoring	S1-128	11/01	11/02	Y	A
M04B007701	GW monitoring	S1-127	11/02	11/03	Y	A
M04B007702	GW monitoring	S1-134	11/02	11/03	Y	A
M04B007703	GW monitoring	S1-104	11/02	11/03	Y	A
M04B007704	GW monitoring	S1-132	11/02	11/03	Y	A
M04B007705	GW monitoring	S1-121	11/02	11/03	Y	A
M04B007706	GW monitoring	S1-120	11/02	11/03	Y	A
M04B007707	GW monitoring	INT-104	11/02	11/03	Y	A
M04B007708	GW monitoring	INT-217	11/02	11/03	Y	A
M04B007709	GW monitoring	INT-134	11/02	11/03	Y	A
M04B007710	GW monitoring	INT-133	11/02	11/03	Y	A

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-1

Samples Collected - November, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M04B007801	GW monitoring	S1-109	11/02	11/03	Y	A
M04B007802	GW monitoring	S1-113	11/02	11/03	Y	A
M04B007803	GW monitoring	S1-114	11/02	11/03	Y	A
M04B007804	GW monitoring	S1-050-P-2	11/02	11/03	Y	A
M04B007805	GW monitoring	S1-107	11/02	11/03	Y	A
M04B007806	GW monitoring	S1-106	11/02	11/03	Y	A
M04B007807	GW monitoring	S1-063	11/02	11/03	Y	A
M04B007808	GW monitoring	INT-119	11/02	11/03	Y	A
M04B007809	GW monitoring	INT-115	11/02	11/03	Y	A
M04B007810	GW monitoring	INT-233	11/02	11/03	Y	A
M04B007901	GW monitoring	S1-123	11/03	11/04	Y	A
M04B007902	GW monitoring	S1-105	11/03	11/04	Y	A
M04B007903	GW monitoring	REI-10-3	11/03	11/04	Y	A
M04B007904	GW monitoring	INT-112	11/03	11/04	Y	A
M04B007905	GW monitoring	INT-120	11/03	11/04	Y	A
M04B007906	GW monitoring	INT-144	11/03	11/04	Y	A
M04B007907	GW monitoring	INT-141	11/03	11/04	Y	A
M04B007908	GW monitoring	INT-114	11/03	11/04	Y	A
M04B007909	GW monitoring	INT-123	11/03	11/04	Y	A
M04B008001	GW monitoring	INT-106	11/05	11/07	Y	A
M04B008002	GW monitoring	INT-110	11/05	11/07	Y	A
M04B008003	GW monitoring	REI-10-2	11/05	11/07	Y	A
M04B008004	GW monitoring	INT-233	11/05	11/07	Y	A
M04B008005	GW monitoring	INT-127	11/05	11/07	Y	A
M04L000201	GW monitoring (Total & dissolved metals)	INT-135	11/18	11/20	N	A
M04L000202	GW monitoring (Total & dissolved metals)	INT-144	11/18	11/20	N	A
M04L000203	GW monitoring (Total & dissolved metals)	INT-022	11/18	11/20	N	A

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-1

Samples Collected - November, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M04L000204	GW monitoring (Total & dissolved metals)	S1-135	11/18	11/20	N	A
M04L000205	GW monitoring (Total & dissolved metals)	S1-033	11/18	11/20	N	A
M04L000206	GW monitoring (Total & dissolved metals)	INT-101	11/18	11/20	N	A
M04L000207	GW monitoring (Total & dissolved metals)	INT-059-P-2	11/18	11/20	N	A
M04L000208	GW monitoring (Total & dissolved metals)	S1-111	11/18	11/20	N	A
M04L000209	GW monitoring (Total & dissolved metals)	S1-118	11/18	11/20	N	A
M04L000210	GW monitoring (Total & dissolved metals)	INT-118	11/18	11/20	N	A
M06C003301	Monthly process water	T-101 Eff	11/02	11/03	Y	A
M06C003302	Monthly process water	T-101 Inf	11/02	11/03	Y	A
M06C003303	Monthly process water	R1	11/02	11/03	Y	A
M06C003304	Monthly process water	R2	11/02	11/03	Y	A
M06C003305	Monthly process water	Cell D Liqr	11/02	11/03	Y	A

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-2

Treated Water QC Failure Summary

Sample Date	Test	QC Failure	Explanation	Corrective Action
10/30/95	PCB	SU Recov.	Surrogate recovery for DCB-column 2 was outside QC limits (high) on the blank associated with this sample.	None required - Surrogate must pass only one of two columns.
10/30/95	Ba Mn	ICP Serial Dilution	Interference was indicated by the ICP serial dilution check.	None required - Duplicate, matrix spike and LCS were within QC limits.
11/06/95	TSS	Duplicate Precision	Duplicate precision was outside QC limits.	None required - both the sample and duplicate were less than the action level of 5 mg/L. Original sample value was BDL.
11/06/95	SV	MS Accuracy	Matrix spike accuracy was outside QC limits for 4-nitrophenol and pentachlorophenol. Precision was within QC limits.	None required - FLTG QAP only provides precision and accuracy QC limits for naphthalene.

7.2.3 Completeness Summaries

Tables 7-3 through 7-3 summarize completeness values for VOA, SVA, PCBs, Metals and miscellaneous parameters on treated water samples.

VOA (Table 7-3)

A total of 4 VOA sample sets have been validated with all categories meeting Project Completeness Goals.

SVA (Table 7-4)

A total of 4 SVA sample sets have been validated for this time period. All categories meet or exceed Project Completeness Goals with the exception of sample matrix effect. This is due to matrix effect failures in the early stages of the project and the MS/MSD accuracy failures that occurred during September and October 1994.

PCBs (Table 7-5)

A total of 4 PCB sample sets have been validated for this time period with all samples, meeting data quality objectives. All categories meet or exceed Project Completeness Goals.

Metals (Table 7-6)

A total of 4 sample sets have been validated for this time period. Project Completeness Goals are met or exceeded in all categories.

Miscellaneous Parameters (Table 7-7)

A total of 4 sample sets have been validated for this time period. Project completeness goals are met or exceeded in all categories.

TABLE 7-3

Completeness Summary
M03A Treated Water
Volatile Organics Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	Project to Date	PROJECT GOAL
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	100	94	90
SU1 (d4-1,2-DCE)	100	97	90
SU2 (d8-Toluene)	100	98	90
SU3 (4-BFB)	100	99	90
IS Check	100	100	90
IS1 (BrClMethane)	100	100	90
IS2 (1,4-DiFlBenzene)	100	100	90
IS3(d5-ClBenzene)	100	100	90
Sample RT/RRT Check	100	*	
Vinyl Chloride			
Accuracy	100	99	90
Precision	100	99	90
Benzene			
Accuracy	100	99	90
Precision	100	100	90
No Group Matrix Effect	100	*	90
No Sample Matrix Effect	100	*	90
Tune Check	100	*	
Overall ICAL Check	100	*	
Overall CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93.
PTD completeness values do not apply to these checks.

TABLE 7-4

Completeness Summary
M03A Treated Water
Semivolatile Organic Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	100	95	90
SU1 (2-FIPhenol)	100	96	90
SU2 (d5-Phenol)	100	94	90
SU3 (d5-Nitrobenz)	100	96	90
SU4(2-FIBiphenyl)	100	98	90
SU5(2,4,6-TBPh)	100	94	90
SU6(d14-Terphen)	100	94	90
IS Check	100	98	90
IS1 (d4-1,4-DiClBenz)	100	100	90
IS2 (d8-Naph)	100	100	90
IS3 (d10-Acenaph)	100	100	90
IS4 (d10-Phenanth)	100	100	90
IS5 (d12-Chrysene)	100	99	90
IS6 (d12-Perylene)	100	96	90
Sample RT/RRT	100	*	*
Napthalene			
Accuracy	100	96	90
Precision	100	99	90
No Group Matrix Effect	100	99	90
No Sample Matrix Effect	100	89	90
Tune Check	100	*	*
Overall ICAL Check	100	*	*
Overall CCAL Check	100	*	*
Overall Lab Blank Check	100	*	*

* - Level II QC checks were performed on 10% of samples prior to 6/14/93.
PTD completeness values do not apply to these checks.

TABLE 7-5

Completeness Summary
M03A Treated Water
PCB Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check - Column A	100	99	90
SU1 (DCBP)	100	88	NS
SU2 (TCMX)	100	97	NS
SU Check - Column B	100	98	90
SU1 (DCBP)	100	88	NS
SU2 (TCMX)	75	97	NS
SU Check - Column A or B	100	98	90
Aroclor 1242			
Accuracy	100	99	90
Precision	100	97	90
Overall ICAL Check	100	*	
Overall 1st CCAL Check	100	*	
Overall 2nd CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93.
PTD completeness values do not apply to these checks.

TABLE 7-6

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	PROJECT GOAL
ANALYTE: BARIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CADMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CHROMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: COPPER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: LEAD		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
  Furnace analyses - failure of analytical spike or low MSA coefficient
  ICP analyses - failure of serial dilution

TABLE 7-6 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	PROJECT GOAL
ANALYTE: MANGANESE		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: NICKEL		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SILVER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: ZINC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: MERCURY		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
  Furnace analyses - failure of analytical spike or low MSA coefficient
  ICP analyses - failure of serial dilution

TABLE 7-6 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	PROJECT GOAL
ANALYTE:ARSENIC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SELENIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-7

Completeness Summary
M03A Treated Water
Miscellaneous Parameters Analyses

SAMPLE DATE SET NUMBER	M03A0359 thru M03A0362	Project to Date	PROJECT GOAL
PARAMETER: TOC			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: OILS			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: TSS			
Analysis Hold Time	100	100	100
MS Accuracy	NA	NA	NA
DUP Precision	75	100	NA

ATTACHMENT 7A

Corrective Action Letter
Personnel Air Monitoring Program
QC Issues

87813

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

December 1, 1995

Ron Jansen
FLTG, INCORPORATED
1024 Gulf Pump Road
Crosby, Texas 77532

Dear Ron:

The Tenax tubes analyzed for FLTG and ARCO projects between September 14, 1995 and October 31, 1995 showed high levels of methylene chloride and trans-1,2-dicloretheme. These two compounds are suspect laboratory contaminants during the period mentioned above. The data reported during this time period is suspect for these compounds. Southwest Laboratory of Oklahoma could not isolate the problem but have taken the following corrective actions to ensure that the contamination problem will not occur again.

1) The clean tubes will be stored in screw cap plastic containers in a refrigerator.

2) Standards will not be stored in the freezer section of the refrigerator.

3) The tubes will be shipped in the same plastic containers with charcoal bag.

4) A trip blank will be sent along with the tubes. This trip blank will be stored in the same refrigerator along with the samples and will be analyzed with the samples at no cost to FLTG.

5) A storage blank will be analyzed as a method blank every time the samples are analyzed. This will indicate any problems associated with storage.

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

6) A preliminary report will be faxed to FLTG immediately after the analyses of the samples.

If I can be of further assistance, please do not hesitate contacting me.

Sincerely,

SOUTHEWEST LABORATORY OF OKLAHOMA, INC.

Jayant Shringarpure, Ph.D.
Technical Director.

B

ATTACHMENT 7B

Corrective Action Letter
Personnel Air Monitoring Program
QC Issues

SOUTHWEST LABORATORY OF OKLAHOMA, INC.

November 27, 1995

American Analytical & Technical Services
11950 Industriplex Blvd.
Baton Rouge, LA 70809-5191

Attn: Dr. K. M. Bagawandoss

Dear Dr. Doss:

Based upon our review of our system, the data generated and the visit by yourself and French Limited, we are proposing the following changes as standard operation procedures:

1.) Immediate review of the Field Blank and if any compounds are > 50 ng, the client will be notified for resolution or resampling

2.) We will analyze a Storage Blank with each set of samples received.

3.) Tenax tubes, which are just prepared, shall be stored separately from tubes being returned from the field. No standards will be kept in any refrigerator in which tenax tubes will be stored.

4.) Upon preparing the tubes, they will be stored at 0°C in a plastic shipping tube with screw cap lid. Prior to shipping, all fittings will be rechecked to ensure they are tight. Tubes will be shipped out with cold "blue ice" so that the media will be kept cool, and we can keep a continuous supply of "blue ice" at the site.

Per French Limited's request, our reporting format will change to reflect only values above our reporting limits. Any results below will be reported as ND < 10 ng. We will not flag data or estimate if it is below our reporting limits.

Dr. Shringarpure will do literature research or contact vendors' technical support to verify the life expectancy of tenax absorbent.

Sincerely,

Robert Harris
Laboratory Manager

1700 West Albany • Broken Arrow, OK 74012-1421 • (918) 251-2858 • Fax (918) 251-2599

8

8.0 SITE MAINTENANCE

8.1 Summary of Activities

8.1.1 General Housekeeping

The site safety and housekeeping inspections and responses kept grounds safe and attractive for employees and visitors.

8.1.2 Purchasing

All purchases were covered by written requisitions and purchase orders. Purchase of chemicals is now reduced to groundwater treatment and insitu remediation.

8.1.3 Equipment Maintenance

Routine preventive and production maintenance was performed on all equipment.

8.2 Visitors

The following visitors were recorded at the site during November:

November 2:	G.M. Foster, CHCC/Crosby
	(b) (6) [redacted] CISD
	(b) (6) [redacted] CISD
	Al Goodlow, BSCC
	John E. David, BSCC
	(b) (6) [redacted] CISD
November 8:	Michelle Holloway, Arthur Andersen
November 9:	Charles Murrell, Fire Control
November 10:	Alan Atkinson

(b) (6)

November 13: Mark Harvey, Phillips Crane

November 14: John Faulhaber, ACC
Joe Bernard, ACC
Karen Lanzon, Dow
Ralph Johnson, Dixie Chemical
Carl Everett, SERS
Nina McAfee, Maxus
Harold McCune, Armco
Raymond Schaefer, DuPont
W.F. Muliertz, Goodyear
S.C. Hodscher, Phillips
Dennis R. Aleiyk, Big 3
Alain Simon

November 16: Jim Thomson, AHA
Judith Black, EPA

November 30: James Sher, TNRCC

8.3 Emergency Equipment

8.3.1 Flood Gate Test

The flood gate was exercised on November 1, 1995, with no leak detected.

8.3.2 P-8 Auxiliary Pump

P-8 Auxiliary Pump has been converted to the lagoon ground cover vegetation sprinkler source.

8.3.3 Fire Extinguishers

All fire extinguishers were inspected and certified.

8.4 Security

Smith Security provides 24-hour security at the FLTG site, including the south side of Gulf Pump Road; all site areas are checked hourly. No incidents reported by Security in November.

8.5 Operator Training

All training is documented and records are maintained on site. Employee semi-annual physicals and screening are scheduled for November and December.

8.6 Data Management

Data base is fully operational. Data is entered on a daily basis.

8.7 Personnel Monitoring

Results of personnel monitoring conducted during November are included in Table 8-1.

8.8 OVM System

Work areas are being monitored daily with Organic Vapor Monitor 580A.

8.9 Repository

Records from the November review are listed in Attachment 8A.

8.10 Meteorological Data

The meteorological station was extensively damaged during an electrical storm and will not be repaired. Temperature and rainfall are measured on conventional gauges at the site.

Rainfall data is listed in Table 8-2.

TABLE 8-1

On-Site Employee Contaminant Limits
(From OSHA 29 CFR 1910 Subpart Z)

Compound	PEL 8 hour PPM	1 16-Nov-95 WTP Op (E.O.)		2 16-Nov-95 Well Op. (J.V.)	
		% of PEL	PPM	% of PEL	PPM
Chloromethane	50	0.000	0.000	0.000	0.000
Bromomethane	5	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.171	0.086	0.084	0.042
Acetone	750	0.104	0.776	0.104	0.780
Carbon disulfide	10	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.000	0.000
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.000	0.000	0.000
Chloroform	10	0.029	0.003	0.005	0.001
1,2-Dichloroethane	10	0.000	0.000	0.000	0.000
2-Butanone	200	0.001	0.002	0.001	0.002
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.013	0.001	0.000	0.000
Vinyl acetate	10	0.000	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000
Benzene	1	0.903	0.009	0.518	0.005
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.000	0.000	0.004	0.002
2-Hexanone	5	0.000	0.000	0.000	0.000
Tetrachloroethene	50	0.001	0.000	0.007	0.004
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.000	0.000
Toluene	100	0.022	0.022	0.007	0.007
Chlorobenzene	10	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.006	0.006	0.002	0.002
Styrene	50	0.000	0.000	0.000	0.000
Xylene (total)	100	0.015	0.015	0.004	0.004
Hexane			0.038		0.017

TABLE 8-2

Rainfall Data for November, 1995

Day	Rain Total (Inches)
1	0.50
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00
8	0.00
9	0.00
10	0.00
11	0.30
12	0.00
13	0.00
14	0.00
15	0.00
16	0.00
17	0.40
18	0.01
19	1.10
20	0.00
21	0.00
22	0.00
23	0.00
24	0.00
25	0.00
26	0.00
27	0.00
28	0.00
29	0.00
30	0.00
Total Rainfall	2.31

087822

ATTACHMENT 8A

Repository Status Report: November, 1995

REPOSITORY STATUS REPORT: November, 1995

At the Rice University Library...

1. Remedial Investigation Report April, 1985
2. Remedial Investigation Report Appendices, Volume II, April, 1985
3. Remedial Investigation Report June, 1986 (Updated from April, 1985)
4. *Remedial Investigation Report Appendices*, Volume I, February, 1986 (Revised June, 86)
5. Remedial Investigation Report Appendices, Volume II, February, 1986 (Revised June, 1986)
6. Remedial Investigation Report Appendices, Volume III, February, 1986
7. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume I, December, 1986
8. 1986 Field Investigation and Supplemental Remedial Investigation Report French Limited Site Volume II, Appendices December, 1986
9. 1986 Field Investigation Hydrology Report, December 19, 1986
10. Endangerment Assessment Report February, 1987
11. Endangerment Assessment Report April 1987 (Updated from February, 1987)
12. Feasibility Study Report, March 1987
13. In Situ Biodegradation Demonstration Report Volume I Executive Summary, October 30, 1987 Revised 11-11-87
14. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
15. In Situ Biodegradation Demonstration Report Volume II, October 30, 1987 (Revised February 1, 1988 at Site only)
16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

17. In Situ Biodegradation Demonstration Report Volume III Appendices, October 30, 1987

18. In Situ Biodegradation Demonstration Report Volume III, Appendices, Supplemental Report, November 30, 1987

19. In Situ Biodegradation Demonstration Report French Limited Site, Volume IV October 30, 1987 + Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site, Volume IV November 30, 1987 + Appendices

21. In Situ Biodegradation Demonstration Report French Limited Site Volume V, October 30, 1987

22. In Situ Biodegradation Demonstration Report French Limited Site Volume V Appendices, November 30, 1987 - Supplemental Report

23. In Situ Biodegradation Demonstration Report French Limited Site Volume VI Appendices, October 30, 1987

24. In Situ Biodegradation Demonstration Report French Limited Site Volume VII Appendices, October 30, 1987

25. In Situ Biodegradation Demonstration Report French Limited Site Volume VIII Appendices, October 30, 1987

26. In Situ Biodegradation Demonstration Report French Limited Site Volume IX Appendices, October 30, 1987

27. In Situ Biodegradation Demonstration Report French Limited Site Volume X Appendices, October 30, 1987

28. In Situ Biodegradation Demonstration Report French Limited Site Volume XI Appendices, October 30, 1987

29. In Situ Biodegradation Demonstration Report French Limited Site Volume XII Appendices, October 30, 1987

30. In Situ Biodegradation Demonstration Report French Limited Site Volume XIII Appendices, October 30, 1987

31. In Situ Biodegradation Demonstration Report French Limited Site Volume XIV Appendices, October 30, 1987

32. In Situ Biodegradation Demonstration Report French Limited Site Volume XV Appendices, October 30, 1987

33. In Situ Biodegradation Demonstration Report French Limited Site Volume XVI Appendices, October 30, 1987

34. In Situ Biodegradation Demonstration Report French Limited Site Volume XVII Appendices, October 30, 1987

35. In Situ Biodegradation Demonstration Report French Limited Site Volume XVIII Appendices, October 30, 1987

36. Proposed In Situ Biodegradation Demonstration French Limited Site Phase III, April, 1987

37. In Situ Bioremediation Demonstration French Limited April, 1987 Monthly Report, Equipment Evaluation Phase IV

38. In Situ Bioremediation Demonstration French Limited May, 1987 Monthly Report, Equipment Evaluation Phase IV

39. In Situ Bioremediation Demonstration French Limited June, 1987 Monthly Report, Equipment Evaluation Phase IV

40. In Situ Bioremediation Demonstration French Limited July, 1987 Monthly Report, Equipment Evaluation Phase IV

41. In Situ Bioremediation Demonstration French Limited August, 1987 Monthly Report, Equipment Evaluation Phase IV

42. In Situ Bioremediation Demonstration French Limited November, 1987 Monthly Report, Equipment Evaluation Phase IV

43. In Situ Bioremediation Demonstration French Limited December, 1987 Monthly Report, Equipment Evaluation Phase IV

44. In Situ Bioremediation Demonstration French Limited January, 1988 Monthly Report, Equipment Evaluation Phase IV

45. In Situ Bioremediation Demonstration French Limited February, 1988 Monthly Report, Equipment Evaluation Phase IV

46. In Situ Bioremediation Demonstration French Limited March, 1988 Monthly Report, Equipment Evaluation Phase IV

47. In Situ Bioremediation Demonstration French Limited April, 1988 Monthly Report, Equipment Evaluation Phase IV

48. In Situ Biodegradation Demonstration French Limited May/June 1988 Monthly Report, Equipment Evaluation Phase IV

49. In Situ Bioremediation Demonstration French Limited July, 1988 Monthly Report, Equipment Evaluation Phase IV

50. In Situ Bioremediation Demonstration French Limited August, 1988 Monthly Report, Equipment Evaluation Phase IV

51. In Situ Bioremediation Demonstration French Limited September, 1988 Monthly Report, Equipment Evaluation Phase IV

52. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

53. In Situ Biodegradation Demonstration Phase III Quality Assurance Project Plan for French Limited Site, March, 1987

54. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

55. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

56. Remedial Action Plan Volume I - April, 1990

57. Remedial Action Plan Volume I - September, 1990 (Updated from April, 1990)

58. Remedial Action Plan Volume II Quality Assurance April, 1990

59. Remedial Action Plan Volume II Quality Assurance September, 1990 (Updated from April 1990) Revised June 3, 1991

60. Remedial Action Plan Volume II Quality Assurance June, 1990 Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 22, 1989 Revised September 28, 1990

61. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

62. Remedial Action Plan Volume IV - Spill and Volatile Organic Release Contingency Plan (April 6, 1990)

63. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, May, 1990
Page v.i.3 Missing

64. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990, (Updated from May, 1990)

65. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1,1990

66. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

67. 1988 Slough Investigation Report French Limited Site, October 1988

68. Ambient Air Impact Risk Assessment Report, May 5, 1989

69. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
Page 80 Missing

70. French Limited Site Hurricane Gilbert Preparation Report, October, 1988

71. Potable Water Well Installation Report French Limited Site, December 7, 1988

72. Bioresidue Fixation Alternatives Evaluation Report French Limited Site March 20, 1989

73. Hydrogeologic Characterization Report, March 1989

74. Hydrogeologic Characterization Report - Appendices, March 1989

75. San Jacinto River May 19, 1989 Flood Event Report, June 1989

76. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program - Volume I, August 16, 1989

77. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II Appendix A

78. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III Appendix A, August 16, 1989

79. Riverdale Lake Area Remediation Program August 15, 1989

80. Flood and Migration Control Wall Design Report, August 16, 1989

81. *Flood and Migration Control Wall Design Report Appendix C Access Way Design,* September, 1989

82. North Pit Remediation Report French Limited Site, November 6, 1989

83. Installation Report for Flood and Migration Control Wall, January 8, 1990

84. Installation Report for Flood and Migration Control Wall Appendix A - ENSR Site Logs

85. Installation Report for Flood and Migration Control Wall Appendix B - Inspection Reports

86. Installation Report for Flood and Migration Control Wall Appendix C - Pile Driving Inspection Report January 8, 1990

87. Flood Wall Gate Test Report French Limited Site, February 1990

88. French Limited Remediation Design Report - Executive Summary Bioremediation/Shallow Aquifer, July, 1991

89. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

90. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

91. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

92. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations (March 20, 1991)

93. Bioremediation Facilities Design Report Volume III of IV Appendix E - Design Specifications (March 20, 1991)

94. Bioremediation Facilities Design Report Volume IV of IV - Air Monitoring, March 20, 1991

95. Public Health Assessment for French Limited March 30, 1993 from U.S. Department of Health and Human Services

96. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

97. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

98. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3, Appendix F continued

99. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

100. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

101. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

102. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (5-21-87)

103. Summary of Remedial Alternative Selection 1988

104. Declaration for the Record of Decision 1988

105. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (2-11-88) (Updated from June 21, 1987)

106. Consent Decree between the Federal Government and the FLTG

107. French Limited Superfund Site Community Relations Revised Plan August, 1989 - Jacob's Engineering

108. Results of the French Limited Task Group Survey (Goldman and Company) April, 1987

109. Goldman Public Relations Clipping Report

110. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April, 1994

111. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I

112. Laboratory Evaluation of Biodegradation at the French Limited Site

113. French Limited Site Focused Feasibility Study (May 1987)

114. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

115. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

116. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

117. Cell E and Cell D/F Remediation Verification Report

118. French Limited Wetlands Mitigation, Final Site Restoration Plan

119. French Limited Wetlands Mitigation, Site Selection Report

120. French Limited Wetlands Mitigation, 404 and 401 Permit Application, U.S. Army Corps of Engineers, Galveston, TX

121. Quality Assurance Report, February 15, 1993, Report No. QA93003

122. Quality Assurance Report, January 20, 1994, Report No. QA94001

123. Environmental Protection Agency, Region VI, Hazardous Waste Management Division, First Five Year Review (Type Ia), CERCLIS TXD-980514814, December 1994

124. ARCS, French Limited Site 1993, Annual Groundwater Sampling and Comparison Report, CH2M Hill, January, 1995

125. Annual Groundwater Monitoring Report, December, 1994, Report and Appendices A-G

126. Superfund Preliminary Site Closeout Report CERCLIS TXD-980514814, September, 1994

127. Environmental Protection Agency, Split Sampling and Analysis for Cell D/F, French Limited Site, EPA Contract No: 68-W8-0112, March 1995

128. INT-11 DNAPL Area Cutoff Wall Installation and Permeability Certification Report, AHA, August, 1995

129. Monthly Progress Report, January 1992

130. Monthly Progress Report, January, 1992 Appendices A-C

131. Monthly Progress Report, January, 1992 Appendices E, F

132. Monthly Progress Report, January, 1992 Appendices G

133. Monthly Progress Report, February, 1992

134. Monthly Progress Report, February, 1992 Appendices A-B

135. Monthly Progress Report, February, 1992 Appendices C 1

136. Monthly Progress Report, February, 1992 Appendices C 2

137. Monthly Progress Report, February, 1992 Appendices D-E

138. Monthly Progress Report, March, 1992

139. Monthly Progress Report, March, 1992, Appendix A

140. Monthly Progress Report, April, 1992

141. Monthly Progress Report, April, 1992, Appendices A-B

142. Monthly Progress Report, May, 1992

143. Monthly Progress Report, May, 1992, Appendices A-B

144. Monthly Progress Report, June, 1992

145. Monthly Progress Report, June, 1992, Appendices A-B

146. Monthly Progress Report, July 1992

147. Monthly Progress Report, July 1992, Appendices A-B

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148. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 1 of 3

149. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 2 of 3

150. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 3 of 3

151. Monthly Progress Report, August, 1992

152. Monthly Progress Report, August, 1992, Appendices A-B

153. Monthly Progress Report, September, 1992

154. Monthly Progress Report, September, 1992, Appendices A-B

155. Monthly Progress Report, October, 1992

156. Monthly Progress Report, October, 1992, Appendices A-B

157. Monthly Progress Report, November, 1992

158. Monthly Progress Report, November, 1992 Appendices A-B

159. Monthly Progress Report, December, 1992

160. Monthly Progress Report, December, 1992 Appendices A, B

161. Monthly Progress Report, January, 1993

162. Monthly Progress Report, February, 1993

163. Monthly Progress Report, March, 1993

164. Monthly Progress Report, April, 1993

165. Monthly Progress Report, May, 1993

166. Monthly Progress Report, June, 1993

167. Monthly Progress Report, July, 1993

168. Monthly Progress Report, August, 1993

169. Monthly Progress Report, September, 1993

170. Monthly Progress Report, October, 1993

171. Monthly Progress Report, November, 1993

172. Monthly Progress Report, December, 1993

173. Monthly Progress Report, January, 1994

174. Monthly Progress Report, February, 1994

175. Monthly Progress Report, March, 1994

176. Monthly Progress Report, April, 1994

177. Monthly Progress Report, May, 1994

178. Monthly Progress Report, June, 1994

179. Monthly Progress Report, July, 1994

180. Monthly Progress Report, August, 1994

181. Monthly Progress Report, September, 1994

182. Monthly Progress Report, October, 1994

183. Monthly Progress Report, November, 1994

184. Monthly Progress Report, December, 1994

185. Monthly Progress Report, January, 1995

186. Monthly Progress Report, February, 1995

187. Monthly Progress Report, March, 1995

188. Monthly Progress Report, April, 1995

189. Monthly Progress Report, May, 1995

190. Monthly Progress Report, June, 1995

191. Monthly Progress Report, July, 1995

192. Monthly Progress Report, August, 1995

193. Monthly Progress Report, September, 1995

194. Monthly Progress Report, October, 1995

At the Crosby library...

1. Remedial Investigation Report - June, 1986

2. Remedial Investigation Appendices Volume I June, 1986 Revised from Feb. 1986

3. Remedial Investigation Appendices Volume II June, 1986 Revised from Feb. 1986

4. Remedial Investigation Appendices Volume III February, 1986
   Pages 1 and 2 of 10 Res. Engr Tab Missing
   Analytical Report Worksheet 7-8-9-10 Missing
   Pages 1 and 2 of 6 Missing
   Tab 9 H 1-8 Missing, H 11-19 Missing, Page 1 of 10 Missing
   Page 3 Worksheet Missing
   Tab 10 H 1-3 Missing, Page 3-6 of 6 Missing, Page 1-6 Missing
   Tab 12 Page 2-10 of 10 Missing

5. Field Investigation and Supplemental Remedial Investigation Report, Volume I, December, 1986

6. Field Investigation and Supplemental Remedial Investigation Report, Volume II, Appendices, December 1986

7. Field Investigation Hydrology Report, December 19, 1986

8. Feasibility Study Report, March 1987

9. Feasibility Study Report, March 1987

10. French Limited Site Focused Feasibility Study, May 1987

11. Endangerment Assessment Report February 1987

12. Endangerment Assessment Report April 1987

13. Endangerment Assessment Report April 1987

14. In Situ Biodegradation Demonstration Report Volume I Executive Summary October, 1987 (Revised 12-15-87)

15. In Situ Biodegradation Demonstration Report Volume II October 30, 1987

16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
    Missing Supplements to 5-6 and 7 to 10

17. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

18. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume III, November 30, 1987 + Appendices

19. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume IV, November 30, 1987 -Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume V - Appendices, November 30, 1987

21. Results of the French Limited Task Group Survey (Goldman and Company) April 1987

22. Goldman Public Relations Clipping Report

23. Consent Decree between the Federal Government and the FLTG

24. Consent Decree between the Federal Government and the FLTG

25. Laboratory Evaluation of Biodegradation at the French Limited Site, December 1986.

26. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I, March, 1987

27. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations March 20, 1991

28. Bioremediation Facilities Design Report Volume III of IV Appendix E - Design Specifications March 20, 1991

29. Bioremediation Facilities Design Report Volume IV of IV Air Monitoring, March 20, 1991

30. Remedial Action Plan Volume I, September 28, 1990

31. Remedial Action Plan Volume II - Quality Assurance, Revised June 3, 1991

32. Remedial Action Plan Volume II - Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 28, 1990

33. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

34. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

35. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

36. Hydrogeologic Characterization Report, March 1989

37. Hydrogeologic Characterization Report Appendices, March 1989

38. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

39. Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1, 1990

40. Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

41. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

42. San Jacinto River May 19, 1989 Flood Event Report, June 1989

43. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program Volume I, August 16, 1989

44. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II, Appendix A

45. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III, Appendix A, August 16, 1989

46. Slough Investigation Report French Limited Site, October 1988

47. Flood and Migration Control Wall Design Report, August 16, 1989

48. Flood and Migration Control Wall Design Report (Flood is spelled incorrectly on Volume Cover) + Appendix C - Access way Design September 1989

49. Installation Report for Flood and Migration Control Wall January 8, 1990

50. Installation Report for Flood and Migration Control Wall
Appendix A - ENSR Site Logs

51. Installation Report for Flood and Migration Control Wall
Appendix B - Inspection Reports

52. Installation Report for Flood and Migration Control Wall
Appendix C - Pile Driving Inspection Report January 8, 1990

53. Flood Wall Gate Test Report French Limited Site, February 1990

54. North Pit Remediation Report French Limited Site, November 6, 1989

55. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
(Additional Title - Pumping Test Program for Shallow Alluvial Aquifer Zone)

56. French Limited Site Hurricane Gilbert Preparation Report October, 1988

57. Riverdale Lake Area Remediation Program, August 15, 1989

58. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

59. Potable Water Well Installation Report French Limited Site, December 7, 1988

60. Bioresidue Fixation Alternatives Evaluation Report French Limited Site
March 20, 1989

61. Ambient Air Impact Risk Assessment Report, May 5, 1989

62. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

63. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

64. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

65. French Ltd. Remediation Design Report Executive Summary Bioremediation Shallow Aquifer July 1991

66. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April 15, 1994

67. Black EPA Binder

68. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

69. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

70. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3 Appendix F continued

71. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

72. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

73. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

74. Equipment Evaluation Phase IV Report November, 1987 Monthly Report

75. Equipment Evaluation Phase IV Report December, 1987 Monthly Report

76. Microfiche Field Reports 1988 -small box

77. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

78. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

79. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

80. Cell E and Cell D/F Remediation Verification Report

81. French Limited Wetlands Mitigation, Final Site Restoration Plan

82. French Limited Wetlands Mitigation, Site Selection Report

83. French Limited Wetlands Mitigation, 404 and 401 Permit Application, U.S. Army Corps of Engineers, Galveston, TX

84. Quality Assurance Report, February 15, 1993, Report No. QA93003

85. Quality Assurance Report, January 20, 1994, Report No. QA94001

86. Environmental Protection Agency, Region VI, Hazardous Waste Management Division, First Five Year Review (Type Ia), CERCLIS TXD-980514814, December 1944

87. ARCS, French Limited Site 1993, Annual Groundwater Sampling and Comparison Report, CH2M Hill, January, 1995

88. Annual Groundwater Monitoring Report, December, 1994, Report and Appendices A-G

89. Superfund Preliminary Site Closeout Report CERCLIS TXD-980514814, September, 1994 (2 copies)

90. Environmental Protection Agency, Split Sampling and Analysis for Cell D/F, French Limited Site, EPA Contract No: 68-W8-0112, March 1995

91. INT-11 DNAPL Area Cutoff Wall Installation and Permeability Certification Report, AHA, August, 1995

92. Health Consultation, French Ltd., Harris County, TX, CERCLIS No. TXD-980514814, TDH, September 6, 1994

93. Monthly Progress Report, January, 1992

94. Monthly Progress Report, January, I992, Appendices A-C

95. Monthly Progress Report, January, 1992, Appendices E-F

96. Monthly Progress Report, January, 1992, Appendix G

97. Monthly Progress Report, February, 1992

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98. Monthly Progress Report, February, 1992, Appendices A-B

99. Monthly Progress Report, February, 1992, Appendices C 1

100. Monthly Progress Report, February, 1992 Appendices C 2

101. Monthly Progress Report, February, 1992 , Appendices D-E

102. Monthly Progress Report, March, 1992

103. Monthly Progress Report, March, 1992, Appendix A

104. Monthly Progress Report, April, 1992

105. Monthly Progress Report, April, 1992, Appendices A-B

106. Monthly Progress Report, May, 1992

107. Monthly Progress Report, May, 1992, Appendices A-B

108. Monthly Progress Report, June, 1992

109. Monthly Progress Report, June, 1992, Appendices A-B

110. Monthly Progress Report, July, 1992

111. Monthly Progress Report, July, 1992, Appendices A-B

112. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 1 of 3

113. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 2 of 3

114. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 3 of 3

115. Monthly Progress Report, August, 1992

116. Monthly Progress Report, August, 1992, Appendices A-B

117. Monthly Progress Report, September, 1992

118. Monthly Progress Report, September, 1992, Appendices A-B

119. Monthly Progress Report, October, 1992

120. Monthly Progress Report, October, 1992, Appendices A-B

121. Monthly Progress Report, November, 1992

122. Monthly Progress Report, November, 1992, Appendices A-B

123. Monthly Progress Report, December, 1992

124. Monthly Progress Report, December, 1992, Appendices A-B

125. Monthly Progress Report, January, 1993

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155. Monthly Progress Report, July, 1995

156. Monthly Progress Report, August, 1995

157. Monthly Progress Report, September, 1995

158. Monthly Progress Report, October, 1995

12 Large Brown Folders:

1. Administrative Record Index - 2 folders
   Administrative Record 09-26-79 thru 05-29-83
   Administrative Record 06-03-83 thru 11-28-83
   Administrative Record 02-28-84
   Administrative Record 03-09-84
   Technical Comments on Remediation Investigation Report 2-84
   Supplemental Investigation - Resource Engr. 1-84
   Administrative Record 3-9-84

2. Administrative Record 08-31-84
   Administrative Record 10-29-84 thru 01-22-85
   French Ltd. Technical and Regulatory Concepts for In-Place Closure, 09-84
   Supplementary Investigation, May 1984
   French Ltd. Field Activities Work Plan, February 1985
   Supplementary Investigation Attachments, May 1985

3. Administrative Record 02-04-85
   Remedial Investigation, Vol. I Report, April 1985
   Remedial Investigation, Vol. II Appendices, April 1985

4. Administrative Record 04-08-85 thru 11-26-85
   Administrative Record 02-14-86 thru 04-04-86
   Technical Report for Resource Engineering, 12-03-85
   Appendix QA Program for French Ltd., 12-18-85
   1985 Field Investigation Report Appendices, January, 1986
   1985 Field Investigation Report , January, 1986

5. Administrative Record 04-01-86
   Remedial Investigation Report Appendices, Vol. II, April, 1986

6. Administrative Record 4-1-86

7. Administrative Record 05-08-86 thru 05-12-86
   Administrative Record 06-01-86
   Administrative Record 01-05-87
   Remedial Investigation Report, June 1986
   Laboratory Evaluation of Biodegradation, 12-86
   1986 Field Investigation Hydrology Report, 12-86
   Endangerment Assessment Report, 2-87

8. Feasibility Study, March 1987

9. Administrative Report 03-11-87 thru 03-25-87
   Administrative Report 4-1-87
   Administrative Report 4-7-87
   In Situ Biodegradation Demonstration Phase III QA Project Plan 3-87
   Endangerment Assessment Report, 4-87
   Proposed In Situ Biodegradation Demonstration French Limited Site Phase III 4-87

10. Administrative Report 4-15-87 thru 5-I-87
    Administrative Report 5-21-87 thru 7-2-87
    French Limited Focused Feasibility Study, ERT 5-87

Revised Field Evaluation of Biodegradation at French Site Phase II Vol. I
-Revised 7-10-87

11. Administrative Report 7-20-87 - 11-23-87
Administrative Report Undated Documents 000122-000134
In Situ Biodegradation Demonstration Report Vol. I Executive Summary 10-87
French Limited Site Work Plan Vol. I Project Activities and Sample Plan

12. Texas Air Control Board Regulations I thru IX
Standard Exemption List
Application for Permit

During the month of **November**, the status of both libraries have been reviewed and the above information found to be accurate.

9.0 WETLANDS RESTORATION

9.1 Summary of Activities and Progress

Inspected the site twice per week to evaluate status and to determine maintenance requirements.

Conducted two site tours for interested parties.

Continued work on a video of the project.

Initiated the 5-year maintenance program.

Reviewed the project status, progress, and issues with the agency review committee; the agencies are satisfied with site progress. Issued slides of project to agency review committee.

9.2 Problem Areas and Solutions

None.

9.3 Problems Resolved

None.

9.4 Deliverables Submitted

October, 1995, Monthly Report.

9.5 Upcoming Events and Activities

Daily safety program when work on site.

Support Baytown response plan for the remaining affected soil.

087846

Regular site inspections.

Site maintenance as required.

French Ltd. Project

FLTG, Inc.
Crosby, Texas