Radiation Branch
Environmental Monitoring Summary
for 2006

July 2007

NOTE: Items within these environmental summaries have been removed due to confidential homeland security information under The Texas Public Information Act and House Bill 9, Gov. § code 418.

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Introduction

This is the tenth annual reporting of environmental monitoring results to be produced as an internal document. The document consists of the data collected for each monitoring point at each facility. The data are presented in the same manner as in the past. Limits of detection were not included with data in an effort to reduce the space required for data entry. A listing of expected limits of detection for various media, geometries, and radionuclides is found in the appendices. Maps of the facilities are included, but details have been omitted. Specific information about individual facilities can be found in the license files. Copies of this and the previous documents for 1993-1997 and individual reports for 1998-2005 can be made available through an open records request.

All analyses of environmental media, i.e., soil, air, water, vegetation, are performed by the Texas Department of State Health Services (DSHS), Laboratory Services Section. The Laboratory Services Section operates a highly capable radio-chemistry program. Currently the Environmental Sciences Branch participates in a program sponsored by the United States Department of Energy (USDOE), referred to as Department of Energy Laboratory Accreditation Program. It was developed by the USDOE in order to provide quality assurance and control for USDOE contractors. The most recent results of the Laboratory Services Section's performance in these "cross checks" can be found in the appendices to this document or on the internet at the following location (http://www.eml.doe.gov/qap/reports/).

Thermoluminescent dosimeter (TLD) readings are performed by the staff of the Radiation Branch. The Radiation Branch maintains a Harshaw/Bicron Model 6600 TLD reader. Staff of Landauer, Inc. also perform TLD readings (for the facilities that have neutron sources). Approximately 200 TLDs are exchanged and read each calendar quarter. Background is subtracted from all station readings except for Comanche Peak Steam Electric Station, South Texas Project, and Pantex. Background is not subtracted from these three locations because the readings should be ambient doses.

Analysis of sample data from the monitored facilities indicated no release of radioactive material to the environment that exceeded the regulatory or license limits of the DSHS or any other agency such as the United States Nuclear Regulatory Commission or the USDOE. Some of the TLD readings at a few of the monitored facilities exceeded 100 mrem for the year. All licensed facilities are required by rule to document that exposures from conducting operations do not cause doses in excess of the regulatory limits to employees or individual members of the general public. The documentation is maintained for inspection by the Radiation Branch. Licensees are allowed to use mitigating factors, such as occupancy and distance to nearest occupied areas, in demonstrating compliance with those limits.

Any questions should be directed to Robert E. Free at 512-834-6770, ext. 2022 or robert.free@dshs.state.tx.us.

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Robert Free

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Fixed Nuclear

Facilities

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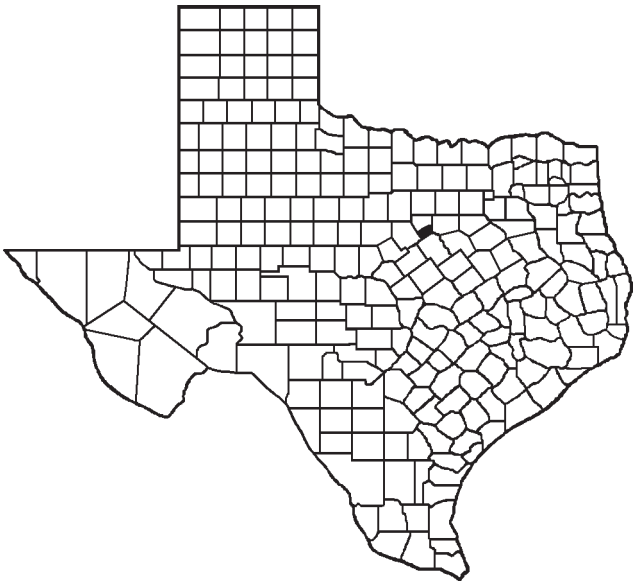
Comanche Peak Steam Electric Station

Radiation Branch Site No. 031

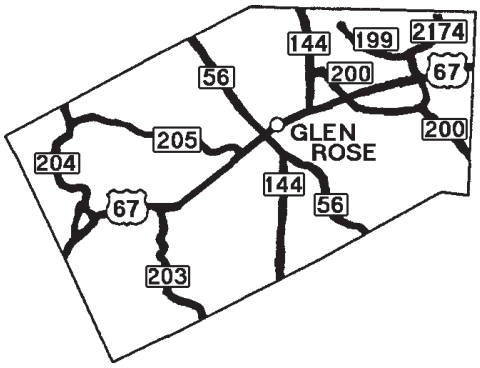
Comanche Peak Steam Electric Station (CPSES) is a two-unit nuclear-fueled power plant owned and operated by TXU Energy. The plant is located in Somervell County four and one-half miles northwest of Glen Rose and approximately 80 miles southwest of downtown Dallas.

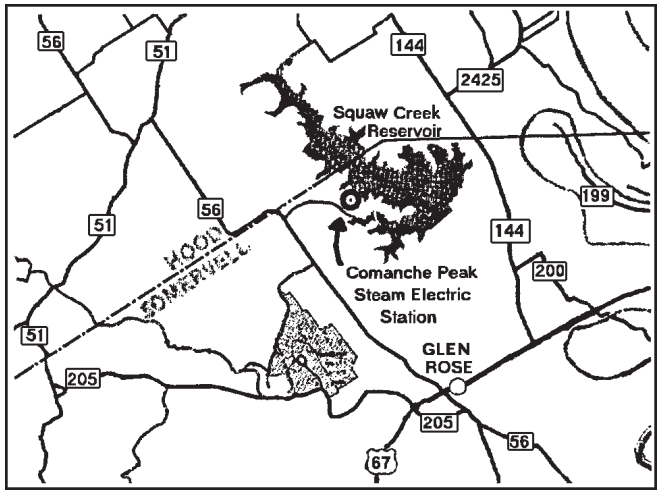
CPSES, TXU Energy's sole nuclear power plant, with an operating capacity of 2,300 megawatts annually [two Westinghouse 1,150 megawatt (electric) pressurized water reactor units], began operation in 1990, although fuel had been received on-site in 1982-1983. The plant has approximately 1,300 employees. The Radiation Branch surveillance program consists of sampling air, fish, food products, sediment, vegetation, and water and TLD monitoring.



Shaded area indicates location of Somervell County

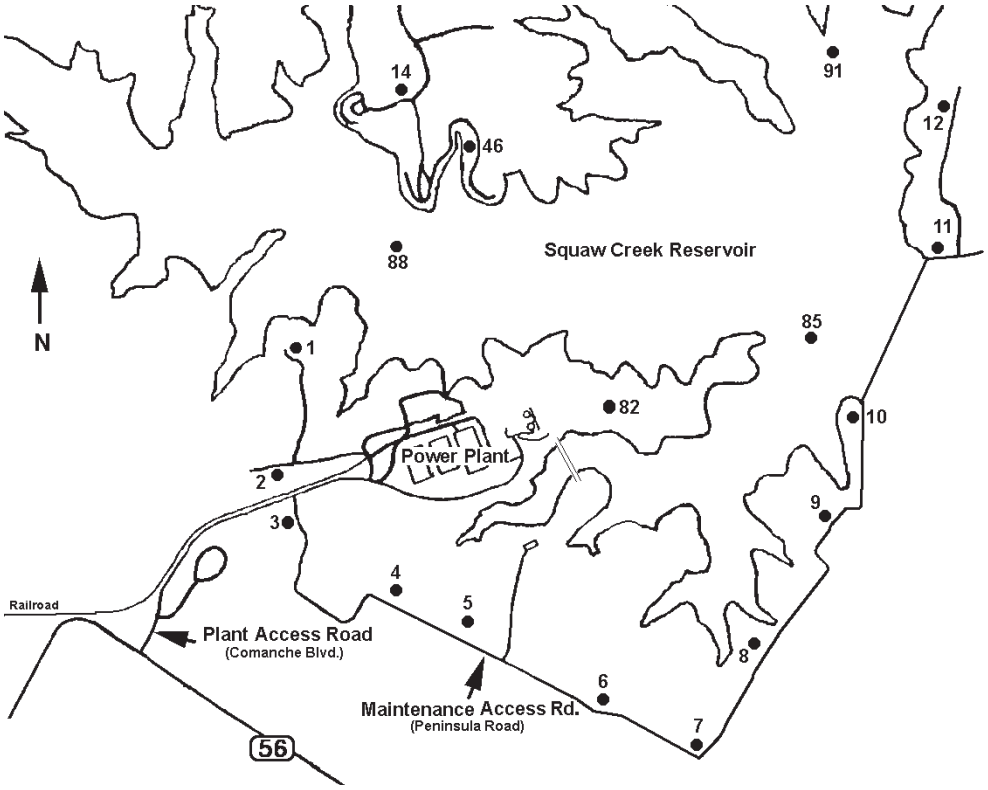
Somervell County

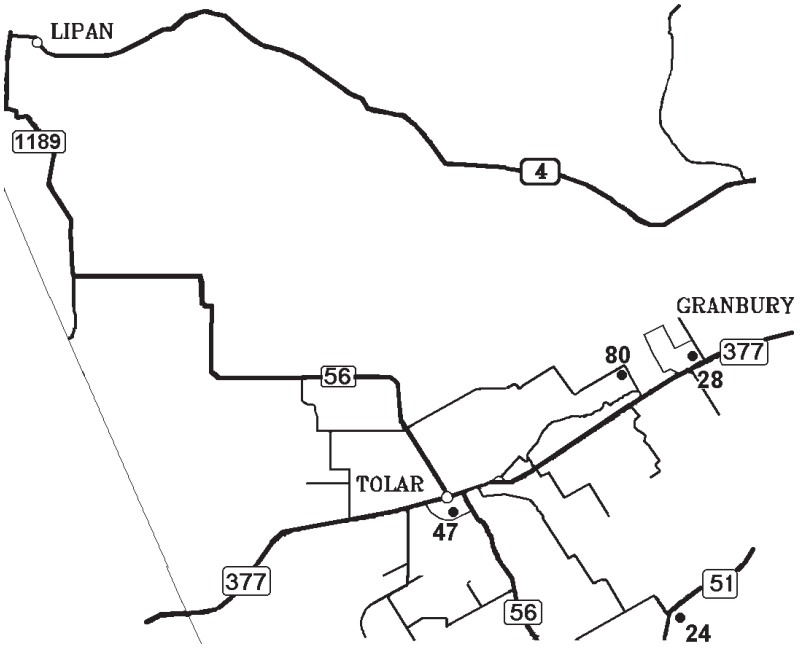


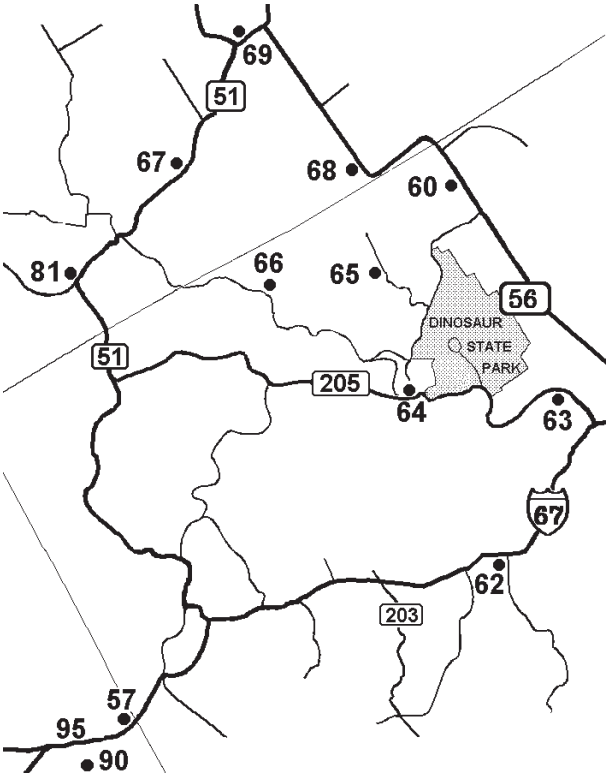


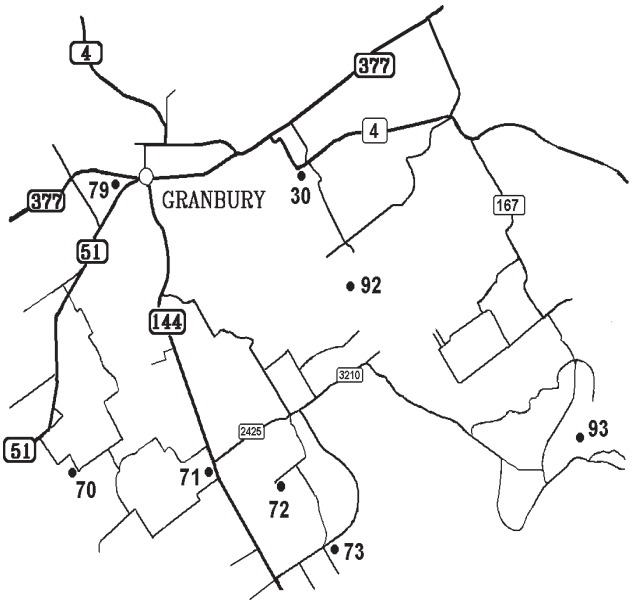
Monitoring Station Locations

Note: Sample type not indicated on maps.






69
51
67
68
60
81
66
65
56
DINOSAUR
STATE
PARK
51
205
64
63
67
62
203
57
95
90


4
377
4
377
79
GRANBURY
30
167
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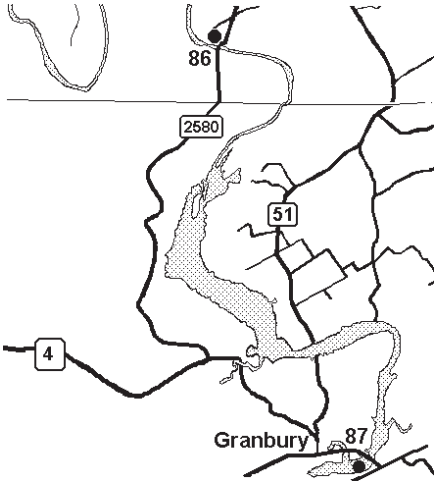
92
144
3210
2425
51
93
70
71
72
73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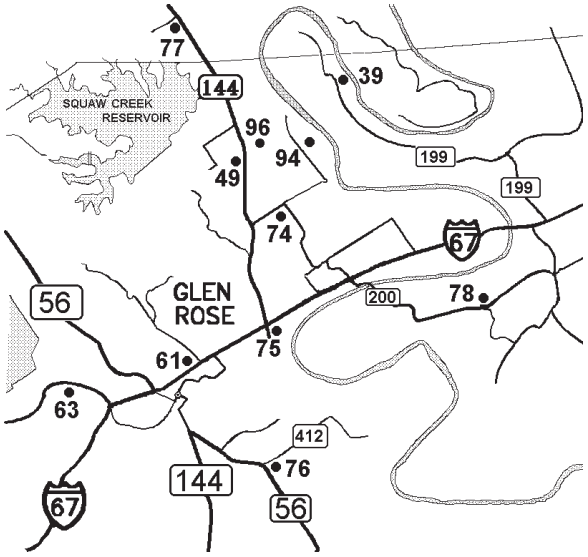
2580
51
4
Granbury
87


77
144
SQUAW CREEK
RESERVOIR
39
96
94
199
49
199
74
67
56
GLEN
ROSE
200
78
61
75
63
412
144
76
67
56

Thermoluminescent Dosimeter (TLD) Monitoring Results[1]
(quarterly and annual readings are in mrem)

Station	Q1	Q2	Q3	Q4	Annual Dose	Notes
01	18.4	14.2	12.2	16.3	61.1	
02	19.6	15.2	14.1	17.3	66.2	
03	16.1	13.1	11.3	15.2	55.7	
04	18.4	15.2	14.1	16.3	64.0	
05	17.3	15.2	13.1	16.3	61.9	
06	17.3	15.2	12.2	16.3	61.0	
07	16.1	13.1	12.2	16.3	57.7	
08	17.3	14.2	13.1	16.3	60.9	
09	19.6	16.2	14.1	17.3	67.2	
10	17.3	14.2	13.1	15.2	59.8	
11	16.1	14.2	11.3	15.2	56.8	
12	19.6	16.2	15.0	18.4	69.2	
14	18.4	13.8	12.2	16.4	60.8	
24	18.4	15.0	13.0	17.5	63.9	
28	18.7	16.0	14.1	17.3	66.1	
30	17.3	15.0	13.1	16.1	61.5	
39	17.3	14.8	13.1	16.3	61.5	
46	16.1	13.8	12.2	16.4	58.5	
47	19.8	15.0	14.1	16.3	65.2	
49	18.4	14.8	13.1	17.3	63.6	
60	18.4	14.2	13.0	17.5	63.1	
61	18.4	14.0	13.1	17.1	62.6	
62	17.3	14.2	12.2	16.3	60.0	
63	19.6	15.2	14.1	18.4	67.3	
64	18.4	15.2	13.1	16.3	63.0	
65	16.1	13.1	10.3	14.1	53.6	
66	17.3	15.2	13.1	16.3	61.9	
67	17.3	14.2	13.1	15.2	59.8	
68	17.3	14.2	13.1	15.2	59.8	
69	16.3	14.0	12.2	15.2	57.7	
70	17.3	13.0	12.1	16.4	58.8	
71	16.1	--	12.1	15.3	58.0	[2]Q2-TLD missing
72	17.3	14.0	13.0	16.3	60.6	
73	17.3	14.0	12.1	16.3	59.7	
74	17.3	13.8	--	16.3	63.2	[2]Q3-TLD missing
75	16.1	13.0	11.1	15.2	55.4	
76	17.3	14.0	12.2	15.2	58.7	
77	16.1	13.8	11.3	14.1	55.3	
78	17.3	14.8	12.3	16.3	60.7	
79	18.4	15.0	13.1	16.3	62.8	
80	18.7	15.0	13.1	17.3	64.1	
81	17.3	16.2	13.1	17.3	63.9	
82	20.7	16.2	14.1	18.4	69.4	

NOTE: [1] Background is not subtracted from the data.

[2] If data are missing during a quarter, an average of known quarter readings for that year and location is used to fill in for the missing data.

Comanche Peak Steam Electric Station

Date	Lab No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
Air Iodine pCi/m³																
2006-01-03	ER060002	01									<6E-3					
2006-01-03	ER060004	57									<6E-3					
2006-01-10	ER060028	01									<6E-3					
2006-01-10	ER060030	57									<5E-3					
2006-01-17	ER060044	01									<6E-3					
2006-01-17	ER060042	57									<9E-3					
2006-01-24	ER060062	01									<5E-3					
2006-01-24	ER060060	57									<6E-3					
2006-01-31	ER060070	01									<7E-3					
2006-01-31	ER060072	57									<5E-3					
2006-02-07	ER060090	01									<6E-3					
2006-02-07	ER060093	57									<4E-3					
2006-02-14	ER060104	01									<4E-3					
2006-02-14	ER060102	57									<6E-3					
2006-02-21	ER060112	01									<6E-3					
2006-02-21	ER060114	57									<5E-3					
2006-02-28	ER060129	01									<4E-3					
2006-02-28	ER060127	57									<5E-3					
2006-03-07	ER060141	01									<6E-3					
2006-03-07	ER060139	57									<6E-3					
2006-03-14	ER060148	01									<6E-3					
2006-03-14	ER060150	57									<4E-3					
2006-03-21	ER060157	01									<6E-3					
2006-03-21	ER060159	57									<8E-3					
2006-03-28	ER060176	01									<6E-3					
2006-03-28	ER060178	57									<5E-3					
2006-04-04	ER060179	01									<4E-3					
2006-04-04	ER060181	57									<9E-3					
2006-04-11	ER060218	01									<6E-3					
2006-04-11	ER060216	57									<5E-3					
2006-04-18	ER060239	01									<5E-3					
2006-04-18	ER060237	57									<6E-3					
2006-04-25	ER060250	01									<6E-3					
2006-04-25	ER060253	57									<7E-3					
2006-05-02	ER060257	01									<6E-3					
2006-05-02	ER060259	57									<5E-3					
2006-05-09	ER060268	01									<6E-3					
2006-05-09	ER060270	57									<6E-3					
2006-05-16	ER060286	01									<7E-3					
2006-05-16	ER060284	57									<5E-3					
2006-05-23	ER060293	01									<7E-3					
2006-05-23	ER060295	57									<5E-3					
2006-05-30	ER060306	01									<6E-3					
2006-05-30	ER060308	57									<7E-3					
2006-06-06	ER060313	01									<6E-3					
2006-06-06	ER060311	57									<6E-3					

Environmental Sample Results

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-06-13	ER060320	01									<6E-3					
2006-06-13	ER060322	57									<6E-3					
2006-06-20	ER060328	01									<6E-3					
2006-06-20	ER060330	57									<6E-3					
2006-06-27	ER060336	01									<6E-3					
2006-06-27	ER060338	57									<7E-3					
2006-07-03	ER060351	01									<7E-3					
2006-07-03	ER060353	57									<7E-3					
2006-07-11	ER060366	01									<5E-3					
2006-07-11	ER060368	57									<6E-3					
2006-07-18	ER060408	01									<6E-3					
2006-07-18	ER060410	57									<6E-3					
2006-07-25	ER060423	01									<6E-3					
2006-07-25	ER060421	57									<6E-3					
2006-08-01	ER060430	01									<5E-3					
2006-08-01	ER060432	57									<6E-3					
2006-08-08	ER060439	01									<4E-3					
2006-08-08	ER060437	57									<6E-3					
2006-08-15	ER060454	01									<8E-3					
2006-08-15	ER060456	57									<9E-3					
2006-08-22	ER060460	01									<6E-3					
2006-08-22	ER060458	57									<6E-3					
2006-08-29	ER060470	01									<6E-3					
2006-08-29	ER060472	57									<6E-3					
2006-09-05	ER060484	01									<6E-3					
2006-09-05	ER060482	57									<6E-3					
2006-09-12	ER060491	01									<6E-3					
2006-09-12	ER060493	57									<6E-3					
2006-09-19	ER060499	01									<6E-3					
2006-09-19	ER060501	57									<6E-3					
2006-09-26	ER060518	01									<7E-3					
2006-09-26	ER060516	57									<6E-3					
2006-10-03	ER060526	01									<5E-3					
2006-10-03	ER060528	57									<6E-3					
2006-10-10	ER060544	01									<7E-3					
2006-10-10	ER060546	57									<7E-3					
2006-10-17	ER060588	01									<7E-3					
2006-10-17	ER060590	57									<7E-3					
2006-10-24	ER060597	01									<6E-3					
2006-10-24	ER060595	57									<6E-3					
2006-10-31	ER060609	01									<7E-3					
2006-10-31	ER060607	57									<6E-3					
2006-11-07	ER060622	01									<5E-3					
2006-11-07	ER060620	57									<6E-3					
2006-11-14	ER060630	01									<6E-3					
2006-11-14	ER060632	57									<6E-3					
2006-11-21	ER060640	01									<9E-3					
2006-11-21	ER060642	57									<9E-3					
2006-11-28	ER060655	01									<7E-3					
2006-11-28	ER060654	57									<7E-3					

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-12-05	ER060660	01									<6E-3					
2006-12-05	ER060662	57									<6E-3					
2006-12-12	ER060673	01									<7E-3					
2006-12-12	ER060675	57									<5E-3					
2006-12-19	ER060682	01									<4E-3					
2006-12-19	ER060684	57									<3E-3					
2006-12-26	ER060685	01									<7E-3					
2006-12-26	ER060687	57									<5E-3					
Air Particulate pCi/m³																
2006-01-03	ER060001	01	3.8E-2													
2006-01-03	ER060003	57	3.4E-2													
2006-01-10	ER060029	01	2.7E-2													
2006-01-10	ER060031	57	2.8E-2													
2006-01-17	ER060045	01	2.1E-2													
2006-01-17	ER060043	57	2.2E-2													
2006-01-24	ER060063	01	2.1E-2													
2006-01-24	ER060061	57	2.2E-2													
2006-01-31	ER060069	01	2.9E-2													
2006-01-31	ER060071	57	2.9E-2													
2006-02-07	ER060091	01	2.8E-2													
2006-02-07	ER060092	57	2.8E-2													
2006-02-14	ER060103	01	2.4E-2													
2006-02-14	ER060101	57	2.1E-2													
2006-02-21	ER060113	01	2.7E-2													
2006-02-21	ER060115	57	2.8E-2													
2006-02-28	ER060128	01	3.4E-2													
2006-02-28	ER060126	57	3.5E-2													
2006-03-07	ER060142	01	3.7E-2													
2006-03-07	ER060140	57	3.6E-2													
2006-03-14	ER060149	01	2.8E-2													
2006-03-14	ER060151	57	3.1E-2													
2006-03-21	ER060156	01	2.2E-2													
2006-03-21	ER060158	57	3.6E-2													
2006-03-28	ER060175	01	2.4E-2													
2006-03-28	ER060177	57	2.7E-2													
2006-04-04	ER060180	01	2.2E-2													
2006-04-04	ER060182	57	2.5E-2													
2006-04-11	ER060217	01	2.7E-2													
2006-04-11	ER060215	57	3.0E-2													
2006-04-18	ER060238	01	2.4E-2													
2006-04-18	ER060236	57	2.7E-2													
2006-04-25	ER060249	01	2.1E-2													
2006-04-25	ER060252	57	2.5E-2													
2006-05-02	ER060256	01	2.5E-2													
2006-05-02	ER060258	57	2.9E-2													
2006-05-09	ER060269	01	1.9E-2													
2006-05-09	ER060271	57	2.3E-2													
2006-05-16	ER060287	01	2.3E-2													
2006-05-16	ER060285	57	2.4E-2													

Environmental Sample Results

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-05-23	ER060294	01	2.6E-2													
2006-05-23	ER060296	57	2.6E-2													
2006-05-30	ER060305	01	2.2E-2													
2006-05-30	ER060307	57	2.1E-2													
2006-06-06	ER060314	01	2.5E-2													
2006-06-06	ER060312	57	2.6E-2													
2006-06-13	ER060321	01	3.5E-2													
2006-06-13	ER060323	57	3.5E-2													
2006-06-20	ER060329	01	2.2E-2													
2006-06-20	ER060331	57	2.3E-2													
2006-06-27	ER060337	01	1.7E-2													
2006-06-27	ER060339	57	1.8E-2													
2006-07-03	ER060350	01	2.6E-2													
2006-07-03	ER060352	57	2.5E-2													
2006-07-11	ER060367	01	2.0E-2													
2006-07-11	ER060369	57	1.8E-2													
2006-07-18	ER060409	01	2.1E-2													
2006-07-18	ER060411	57	1.9E-2													
2006-07-25	ER060424	01	2.2E-2													
2006-07-25	ER060422	57	2.0E-2													
2006-08-01	ER060429	01	1.4E-2													
2006-08-01	ER060431	57	1.4E-2													
2006-08-08	ER060440	01	2.2E-2													
2006-08-08	ER060438	57	2.1E-2													
2006-08-15	ER060453	01	1.6E-2													
2006-08-15	ER060455	57	1.5E-2													
2006-08-22	ER060459	01	2.5E-2													
2006-08-22	ER060457	57	2.3E-2													
2006-08-29	ER060471	01	1.9E-2													
2006-08-29	ER060473	57	1.6E-2													
2006-09-05	ER060485	01	3.4E-2													
2006-09-05	ER060483	57	3.0E-2													
2006-09-12	ER060490	01	3.8E-2													
2006-09-12	ER060492	57	5.6E-2													
2006-09-19	ER060500	01	2.4E-2													
2006-09-19	ER060502	57	3.2E-2													
2006-09-26	ER060517	01	2.8E-2													
2006-09-26	ER060515	57	3.4E-2													
2006-10-03	ER060525	01	3.4E-2													
2006-10-03	ER060527	57	4.5E-2													
2006-10-10	ER060545	01	4.1E-2													
2006-10-10	ER060547	57	5.7E-2													
2006-10-17	ER060589	01	2.8E-2													
2006-10-17	ER060591	57	3.9E-2													
2006-10-24	ER060598	01	3.0E-2													
2006-10-24	ER060596	57	3.6E-2													
2006-10-31	ER060610	01	3.0E-2													
2006-10-31	ER060608	57	4.0E-2													
2006-11-07	ER060623	01	3.3E-2													
2006-11-07	ER060621	57	4.5E-2													

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-11-14	ER060629	01	3.2E-2													
2006-11-14	ER060631	57	4.6E-2													
2006-11-21	ER060641	01	3.8E-2													
2006-11-21	ER060643	57	4.8E-2													
2006-11-28	ER060652	01	3.2E-2													
2006-11-28	ER060653	57	3.9E-2													
2006-12-05	ER060659	01	4.3E-2													
2006-12-05	ER060661	57	6.1E-2													
2006-12-12	ER060672	01	3.6E-2													
2006-12-12	ER060674	57	5.3E-2													
2006-12-19	ER060681	01	3.9E-2													
2006-12-19	ER060683	57	5.3E-2													
2006-12-26	ER060686	01	2.6E-2													
2006-12-26	ER060688	57	3.5E-2													
Air Particulate Composite pCi/Sample																
2006-04-17	ER060219	01		<9.0	<3.1	<3.7	<2.6	<3.3	<5.8		<2.7	<3.9	<3.1	<2.8	<7.2	<5.1
2006-04-17	ER060220	57		<1.1E+1	<3.1	<3.3	<2.8	<3.5	<6.1		<2.9	<3.7	<3.2	<3.1	<7.1	<5.5
2006-07-17	ER060358	01		<8.9	<3.0	<3.8	<2.6	<3.1	<5.9		<2.6	<3.3	<3.1	<2.9	<7.2	<4.8
2006-07-17	ER060359	57		<1.1E+1	<3.2	<3.3	<3.0	<3.3	<5.6		<2.8	<3.5	<3.4	<3.0	<7.5	<5.6
2006-10-19	ER060576	01		<1.1E+1	<3.1	<3.8	<3.7	<3.4	<6.9		<3.1	<4.4	<3.4	<3.2	<8.7	<5.7
2006-10-19	ER060577	57		<1.1E+1	<3.3	<3.6	<3.3	<3.6	<6.3		<3.1	<3.9	<3.3	<3.3	<7.6	<5.5
2007-01-31	ER070066	01		<6.7	<2.1	<2.4	<1.9	<2.2	<4.0		<2.0	<2.6	<2.2	<2.2	<4.8	<3.7
2007-01-31	ER070067	57		<4.8	<1.5	<1.8	<1.5	<1.7	<2.9		<1.5	<2.0	<1.5	<1.5	<3.4	<2.6
Fish pCi/kg																
2006-04-18	ER060240	91		<1.9E+1	<4.0	<4.0	<3.3	<3.8	<9.1		<6.6	<4.7	<3.9	<4.1	<9.6	<6.8
2006-10-10	ER060566	91		<2.9E+1	<6.2	<6.4	<5.6	<6.4	<1.5E+1		<1.1E+1	<8.3	<6.0	<6.8	<1.5E+1	<1.1E+1
2006-10-10	ER060575	91		<3.1E+1	<7.2	<8.9	<6.3	<7.3	<1.7E+1		<1.1E+1	<1.0E+1	<6.9	<7.7	<1.8E+1	<1.3E+1
2006-10-31	ER060614	92		<4.2E+1	<7.2	<6.9	<6.2	<6.6	<1.7E+1		<1.8E+1	<1.3E+1	<6.8	<8.2	<1.7E+1	<1.3E+1
2006-10-31	ER060615	92		<3.3E+1	<7.3	<8.1	<6.9	<7.5	<1.6E+1		<1.2E+1	<1.0E+1	<7.3	<8.0	<1.8E+1	<1.4E+1
Food Product pCi/kg																
2006-11-14	ER060633	93		<1.8E+1	<5.4	<5.8	<4.9	<5.7	<1.3E+1		<5.6	<5.6	<5.4	<5.3	<1.4E+1	<9.2
Sediment pCi/kg																
2006-01-10	ER060032	88		<1.75E+2	<5.0E+1	<3.8E+1	<5.1E+1	<5.2E+1	<1.01E+2		<4.7E+1	<4.8E+1	<4.3E+1	<5.3E+1	<1.17E+2	<7.9E+1
2006-07-11	ER060370	88		<1.54E+2	<4.5E+1	<4.8E+1	<5.2E+1	<5.5E+1	<8.4E+1		<5.5E+1	<6.6E+1	<4.7E+1	<5.0E+1	<1.25E+2	<8.0E+1
Vegetation for Milk pCi/kg																
2006-01-31	ER060075	14		<3.9E+1	<8.7	<8.4	<7.5	<8.4	<1.9E+1		<1.4E+1	<1.1E+1	<8.3	<8.8	<2.0E+1	<1.6E+1
2006-02-28	ER060125	14		<1.63E+2	<3.1E+1	<3.4E+1	<3.3E+1	<3.6E+1	<6.6E+1		<6.4E+1	<4.8E+1	<3.3E+1	<3.6E+1	<6.6E+1	<6.1E+1
2006-03-28	ER060171	14		<9.1E+1	<2.0E+1	<2.1E+1	<2.1E+1	<2.3E+1	<3.9E+1		<3.6E+1	<3.1E+1	<2.0E+1	<2.3E+1	<4.5E+1	<3.6E+1
2006-03-28	ER060172	90		<3.6E+1	<7.8	<8.5	<7.3	<8.0	<1.9E+1		<1.3E+1	<9.8	<8.3	<8.3	<2.0E+1	<1.4E+1
2006-04-25	ER060251	14		<2.8E+1	<7.6	<8.9	<6.9	<8.1	<1.8E+1		<8.7	<8.0	<7.7	<7.8	<2.1E+1	<1.5E+1
2006-05-30	ER060302	14		<9.2E+1	<2.1E+1	<2.4E+1	<1.9E+1	<2.3E+1	<5.4E+1		<3.3E+1	<2.8E+1	<2.1E+1	<2.4E+1	<5.6E+1	<3.9E+1
2006-06-27	ER060343	14		<1.23E+2	<2.5E+1	<2.2E+1	<2.1E+1	<2.3E+1	<5.0E+1		<4.7E+1	<3.6E+1	<2.4E+1	<2.6E+1	<5.1E+1	<4.2E+1
2006-06-27	ER060342	90		<8.8E+1	<1.8E+1	<2.0E+1	<1.6E+1	<1.8E+1	<4.0E+1		<3.3E+1	<2.8E+1	<1.7E+1	<2.0E+1	<4.0E+1	<3.2E+1
2006-07-25	ER060418	14		<3.6E+1	<1.1E+1	<1.2E+1	<9.5	<9.9	<2.2E+1		<1.3E+1	<1.3E+1	<9.1	<1.0E+1	<2.4E+1	<1.7E+1
2006-08-29	ER060474	14		<6.8E+1	<1.3E+1	<1.4E+1	<1.3E+1	2.9E+1	<2.7E+1		<2.9E+1	<2.4E+1	<1.3E+1	<1.6E+1	<3.2E+1	<2.3E+1

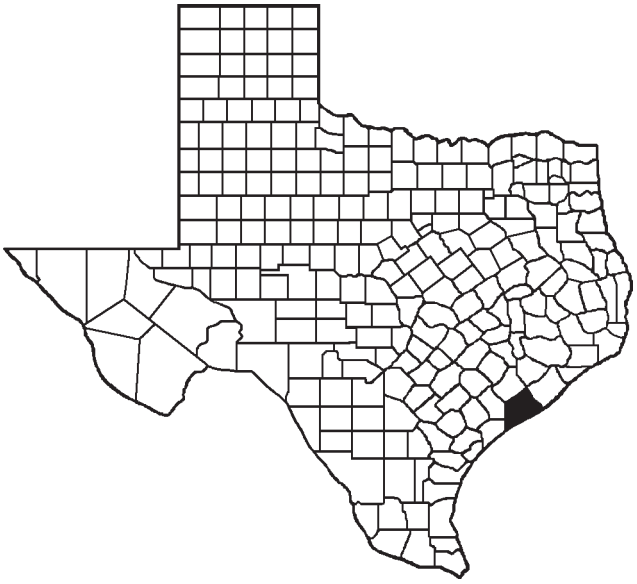
Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-09-26	ER060522	14		<6.5E+1	<1.4E+1	<1.5E+1	<1.3E+1	<1.5E+1	<3.4E+1		<2.5E+1	<2.1E+1	<1.4E+1	<1.5E+1	<3.3E+1	<2.4E+1
2006-09-26	ER060521	90		<7.7E+1	<1.6E+1	<1.7E+1	<1.5E+1	<1.6E+1	<3.5E+1		<3.0E+1	<2.2E+1	<1.6E+1	<1.8E+1	<3.9E+1	<2.9E+1
2006-10-31	ER060611	14		<4.7E+1	<1.1E+1	<1.1E+1	<1.1E+1	<1.2E+1	<2.4E+1		<1.8E+1	<1.6E+1	<1.1E+1	<1.2E+1	<2.6E+1	<2.0E+1
2006-11-28	ER060656	14		<6.4E+1	<1.5E+1	<1.4E+1	<1.4E+1	<1.5E+1	<3.0E+1		<2.3E+1	<2.0E+1	<1.4E+1	<1.6E+1	<3.2E+1	<2.6E+1
2006-12-26	ER060690	14		<5.0E+1	<1.1E+1	<1.1E+1	<8.9	<1.1E+1	<2.2E+1		<2.0E+1	<1.5E+1	<9.7	<1.2E+1	<2.3E+1	<1.9E+1
2006-12-26	ER060689	90		<3.6E+1	<8.1	<8.8	<7.0	<8.4	<2.1E+1		<1.4E+1	<9.3	<7.7	<8.7	<2.2E+1	<1.5E+1
Water-Surface pCi/l																
2006-01-31	ER060074	85	1.8E+1	<8.4	<2.0	<2.0	<1.8	<2.2	<3.7		<3.3	<3.2	<1.8	<2.0	<4.2	<3.3
2006-01-31	ER060073	86	8.6	<7.2	<1.7	<2.0	<1.9	<2.1	<4.1		<2.4	<2.8	<1.9	<2.0	<4.2	<3.3
2006-02-28	ER060123	85	1.7E+1	<9.9	<2.2	<2.0	<2.0	<2.2	<4.3		<3.6	<3.3	<2.2	<2.4	<4.5	<3.8
2006-02-28	ER060124	86	7.6	<8.5	<1.9	<2.1	<1.8	<2.1	<4.0		<3.1	<3.4	<1.8	<2.1	<3.9	<3.5
2006-03-28	ER060173	85	1.6E+1	<9.9	<2.2	<2.1	<2.0	<2.3	<4.3		<3.4	<3.1	<2.1	<2.3	<4.6	<3.8
2006-03-28	ER060174	86	7.7	<7.2	<1.9	<2.0	<1.9	<2.0	<3.7		<2.5	<2.7	<1.8	<1.9	<3.8	<3.3
2006-04-25	ER060254	85	1.7E+1	<6.9	<2.0	<2.0	<1.8	<2.1	<3.7		<2.2	<2.7	<1.9	<1.9	<3.8	<3.3
2006-04-25	ER060255	86	9.1	<8.4	<2.1	<2.0	<1.9	<2.2	<4.2		<2.7	<2.6	<2.2	<2.1	<4.5	<3.8
2006-05-30	ER060303	85	1.2E+1	<6.9	<1.9	<2.1	<1.8	<2.0	<3.9		<2.3	<2.5	<1.8	<1.9	<3.9	<3.1
2006-05-30	ER060304	86	7.7	<9.7	<2.2	<2.1	<2.0	<2.2	<4.3		<3.4	<3.1	<2.2	<2.4	<4.4	<3.9
2006-06-27	ER060340	85	1.4E+1	<7.7	<1.8	<2.0	<1.8	<1.9	<3.8		<2.4	<3.0	<1.9	<1.9	<3.8	<3.3
2006-06-27	ER060341	86	1.0E+1	<9.9	<2.2	<2.0	<1.9	<2.2	<4.2		<3.5	<3.1	<2.2	<2.3	<4.5	<3.8
2006-07-25	ER060419	85	1.3E+1	<1.8E+1	<4.7	<5.3	<4.1	<5.0	<8.9		<5.9	<6.0	<4.7	<4.8	<1.1E+1	<7.7
2006-07-25	ER060420	86	1.0E+1	<8.3	<2.2	<2.1	<1.9	<2.3	<4.1		<2.7	<2.7	<2.2	<2.2	<4.4	<3.6
2006-08-29	ER060475	85	2.0E+1	<1.1E+1	<2.3	<2.1	<1.9	<2.2	<4.6		<3.8	<3.3	<2.1	<2.4	<4.5	<3.8
2006-08-29	ER060476	86	8.8	<9.0	<2.1	<1.9	<1.9	<2.0	<4.0		<3.4	<3.4	<1.8	<2.1	<4.0	<3.5
2006-09-26	ER060520	85	1.7E+1	<8.8	<1.9	<2.1	<1.8	<2.1	<4.2		<3.1	<3.4	<1.9	<2.1	<4.0	<3.2
2006-09-26	ER060519	86	7.7	<9.8	<2.3	<2.2	<2.1	<2.3	<4.3		<3.7	<2.9	<2.1	<2.5	<4.4	<3.9
2006-10-31	ER060612	85	1.3E+1	<8.5	<2.2	<2.2	<2.1	<2.3	<4.0		<2.9	<2.7	<2.1	<2.3	<4.4	<3.8
2006-10-31	ER060613	86	9.1	<7.7	<1.9	<1.9	<1.8	<2.0	<3.8		<2.6	<2.7	<1.8	<2.1	<4.0	<3.5
2006-11-28	ER060658	85	1.4E+1	<8.9	<1.8	<2.0	<1.8	<2.1	<4.0		<3.3	<3.3	<1.8	<2.1	<4.1	<3.5
2006-11-28	ER060657	86	7.3	<7.7	<1.8	<1.8	<1.8	<2.1	<3.8		<2.5	<2.6	<1.8	<2.0	<3.9	<3.4
2006-12-26	ER060691	85	1.1E+1	<8.2	<2.2	<2.1	<2.0	<2.3	<4.1		<2.7	<2.6	<2.2	<2.3	<4.6	<4.0
2006-12-26	ER060692	86	7.9	<7.0	<1.9	<2.1	<1.9	<2.2	<3.9		<2.2	<2.7	<1.9	<2.1	<4.2	<3.2
Water-Surface Composite pCi/l																
2006-06-13	ER060225	85								1.07E+4						
2006-06-13	ER060226	86								<1.0E+3						
2006-08-08	ER060364	85								9.27E+3						
2006-08-08	ER060365	86								<1.0E+3						
2006-10-30	ER060582	85								1.06E+4						
2006-10-30	ER060583	86								<1.0E+3						
2007-02-01	ER070070	85								1.34E+4						
2007-02-01	ER070071	86								<1.0E+3						

South Texas Project

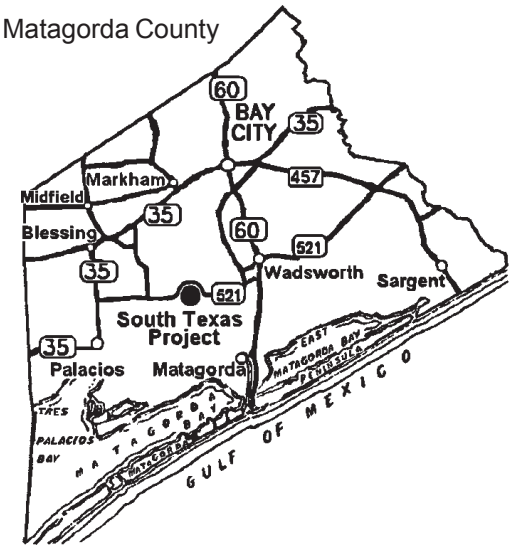
Radiation Branch Site No. 012

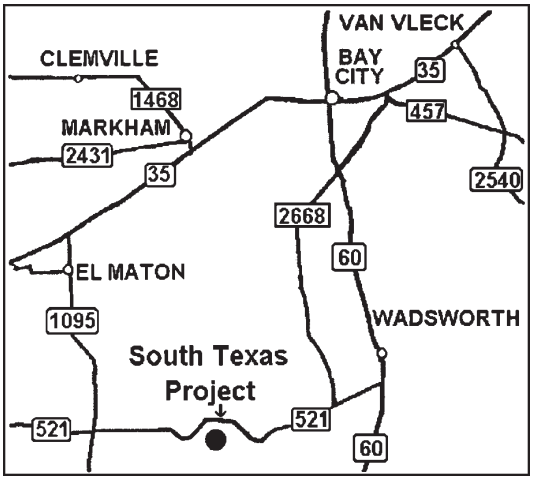
The South Texas Project (STP) is a commercial nuclear power plant operated by STP Nuclear Operating Company and is located 89 miles southwest of Houston and 14 miles south-southwest of Bay City. Two 1250 megawatt (electric) Westinghouse pressurized water reactor nuclear steam supply electrical generating units are in operation at the site. Unit 1 became operational in August of 1988 and Unit 2 in June of 1989.

STP Nuclear Operating Company is owned by AEP Central Power and Light Company, Austin Energy, City Public Service of San Antonio, and Reliant Energy HL&P. STP Nuclear Operating Company manages and operates the plant for its owners, who share its energy in proportion to their ownership interest. STP produces 2,500 megawatts of electricity annually, enough to serve more than one million homes in south central Texas. The Radiation Branch surveillance program consists of sampling air, fish, food products, sediment, vegetation, and water and TLD monitoring.



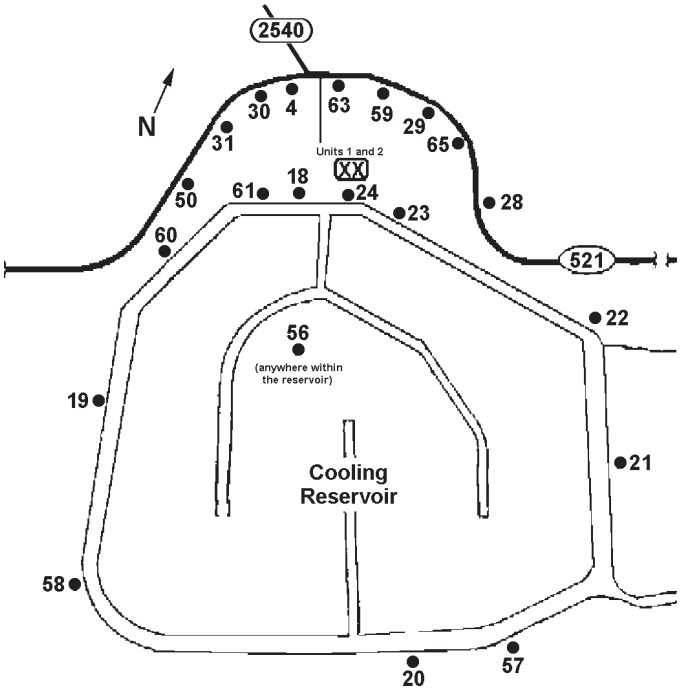
Shaded area indicates location of Matagorda County

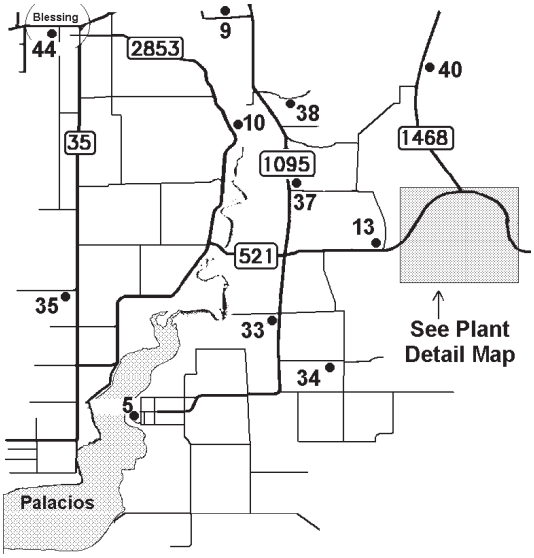


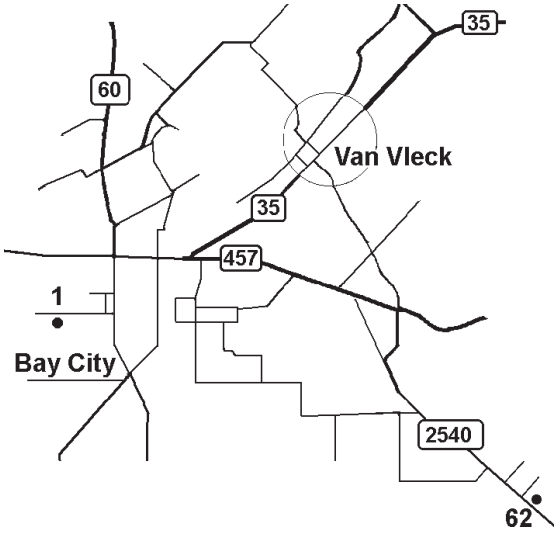


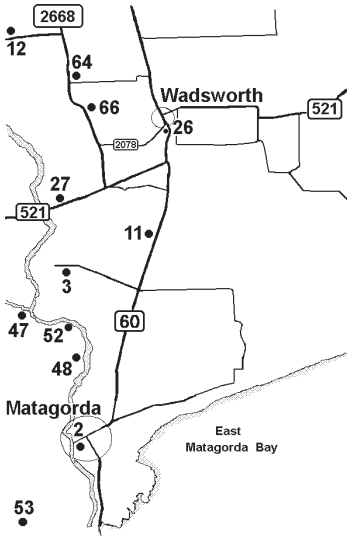
Monitoring Station Locations

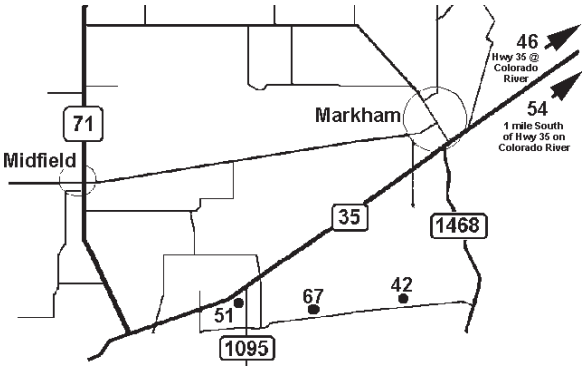
Note: Sample type not indicated on maps.











Thermoluminescent Dosimeter (TLD) Monitoring Results[1]
(quarterly and annual readings are in mrem)

Station	Q1	Q2	Q3	Q4	Annual Dose	Notes
01	17.3	13.9	14.0	16.0	61.2	
02	17.3	13.9	15.0	15.0	61.2	
03	15.2	11.1	11.0	13.0	50.3	
04	18.4	14.9	15.0	17.0	65.3	
05	15.2	12.1	12.0	14.0	53.3	
09	17.3	13.9	14.0	17.0	62.2	
10	17.3	13.9	15.0	17.0	63.2	
11	16.3	13.9	14.0	15.0	59.2	
12	17.3	13.9	14.0	16.0	61.2	
13	18.4	15.0	14.8	16.0	64.2	
18	16.3	13.0	13.0	16.0	58.3	
19	16.3	13.0	14.0	16.0	59.3	
20	16.3	13.0	13.0	16.0	58.3	
21	16.3	12.1	14.0	15.0	57.4	
22	15.2	12.1	13.0	16.0	56.3	
23	16.3	13.0	13.0	16.0	58.3	
24	16.3	13.0	13.0	15.0	57.3	
26	15.2	12.1	13.0	15.0	55.3	
27	15.2	12.1	12.0	15.0	54.3	
28	17.3	13.9	--	16.0	62.9	[2]Q3-TLD missing
29	19.5	15.8	15.0	16.0	66.3	
30	16.3	13.9	14.0	16.0	60.2	
31	19.5	16.7	16.0	18.0	70.2	
33	18.4	13.9	14.0	16.0	62.3	
34	--	13.9	14.0	17.0	59.9	[2]Q1-TLD missing
35	17.3	13.9	14.0	16.0	61.2	
37	18.4	14.9	16.0	19.0	68.3	
38	16.3	13.0	13.0	16.0	58.3	
40	16.3	13.0	13.0	16.0	58.3	
42	20.6	16.7	17.0	19.0	73.3	
44	15.2	12.1	13.0	14.0	54.3	
50	20.6	16.7	16.0	19.0	72.3	
51	18.4	14.9	15.0	18.0	66.3	
57	16.3	13.0	13.0	15.0	57.3	
58	17.3	12.1	13.0	--	56.5	[2]Q4-unable to read TLD
59	18.4	14.9	13.0	15.0	61.3	
60	16.3	13.9	14.0	17.0	61.2	
61	18.4	13.0	14.0	15.0	60.4	
62	18.4	15.8	16.0	17.0	67.2	
63	17.3	14.9	15.0	16.0	63.2	
64	17.3	15.8	15.0	17.0	65.1	
65	17.3	13.9	14.0	16.0	61.2	
66	17.3	13.9	14.0	16.0	61.2	
67	18.4	13.9	15.0	17.0	64.3	

NOTE: [1] Background is not subtracted from the data.

[2] If data are missing during a quarter, an average of known quarter readings for that year and location is used to fill in for the missing data.

South Texas Project

Date	Lab No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
Air Iodine pCi/m³																
2006-01-04	ER060014	30									<5E-3					
2006-01-04	ER060012	35									<5E-3					
2006-01-10	ER060026	30									<5E-3					
2006-01-10	ER060024	35									<8E-3					
2006-01-17	ER060040	30									<3E-3					
2006-01-17	ER060038	35									<5E-3					
2006-01-24	ER060059	30									<5E-3					
2006-01-24	ER060057	35									<6E-3					
2006-01-31	ER060067	30									<5E-3					
2006-01-31	ER060065	35									<6E-3					
2006-02-07	ER060097	30									<5E-3					
2006-02-07	ER060095	35									<6E-3					
2006-02-14	ER060111	30									<5E-3					
2006-02-14	ER060109	35									<7E-3					
2006-02-21	ER060119	30									<5E-3					
2006-02-21	ER060117	35									<7E-3					
2006-02-28	ER060131	30									<9E-3					
2006-02-28	ER060133	35									<6E-3					
2006-03-07	ER060146	30									<5E-3					
2006-03-07	ER060144	35									<6E-3					
2006-03-14	ER060155	30									<7E-3					
2006-03-14	ER060153	35									<7E-3					
2006-03-21	ER060166	30									<5E-3					
2006-03-21	ER060164	35									<7E-3					
2006-03-28	ER060170	30									<5E-3					
2006-03-28	ER060168	35									<6E-3					
2006-04-04	ER060205	30									<7E-3					
2006-04-04	ER060203	35									<6E-3					
2006-04-11	ER060214	30									<6E-3					
2006-04-11	ER060212	35									<6E-3					
2006-04-18	ER060244	30									<8E-3					
2006-04-18	ER060242	35									<6E-3					
2006-04-25	ER060248	30									<6E-3					
2006-04-25	ER060246	35									<6E-3					
2006-05-02	ER060266	30									<6E-3					
2006-05-02	ER060264	35									<1.0E-2					
2006-05-09	ER060275	30									<8E-3					
2006-05-09	ER060273	35									<8E-3					
2006-05-16	ER060283	30									<6E-3					
2006-05-16	ER060281	35									<6E-3					
2006-05-22	ER060291	30									<7E-3					
2006-05-22	ER060289	35									<7E-3					
2006-05-30	ER060300	30									<5E-3					
2006-05-30	ER060298	35									<5E-3					
2006-06-06	ER060318	30									<7E-3					
2006-06-06	ER060316	35									<6E-3					

Environmental Sample Results

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-06-13	ER060327	30									<9E-3					
2006-06-13	ER060325	35									<9E-3					
2006-06-21	ER060335	30									<7E-3					
2006-06-21	ER060333	35									<7E-3					
2006-06-27	ER060347	30									<8E-3					
2006-06-27	ER060345	35									<8E-3					
2006-07-05	ER060357	30									<4E-3					
2006-07-05	ER060355	35									<5E-3					
2006-07-11	ER060374	30									<7E-3					
2006-07-11	ER060372	35									<8E-3					
2006-07-19	ER060415	30									<5E-3					
2006-07-19	ER060413	35									<5E-3					
2006-07-25	ER060428	30									<1.1E-2					
2006-07-25	ER060426	35									<1.0E-2					
2006-08-01	ER060436	30									<1.1E-2					
2006-08-01	ER060434	35									<9E-3					
2006-08-09	ER060444	30									<5E-3					
2006-08-09	ER060442	35									<5E-3					
2006-08-17	ER060452	30									<8E-3					
2006-08-17	ER060450	35									<7E-3					
2006-08-22	ER060464	30									<7E-3					
2006-08-22	ER060462	35									<6E-3					
2006-08-29	ER060480	30									<9E-3					
2006-08-29	ER060478	35									<5E-3					
2006-09-05	ER060489	30									<7E-3					
2006-09-05	ER060487	35									<6E-3					
2006-09-12	ER060497	30									<7E-3					
2006-09-12	ER060495	35									<6E-3					
2006-09-19	ER060506	30									<6E-3					
2006-09-19	ER060504	35									<6E-3					
2006-09-26	ER060511	30									<7E-3					
2006-09-26	ER060509	35									<6E-3					
2006-10-04	ER060532	30									<6E-3					
2006-10-04	ER060530	35									<5E-3					
2006-10-11	ER060573	30									<7E-3					
2006-10-11	ER060571	35									<7E-3					
2006-10-17	ER060587	30									<8E-3					
2006-10-17	ER060585	35									<7E-3					
2006-10-24	ER060604	30									<5E-3					
2006-10-24	ER060602	35									<7E-3					
2006-10-31	ER060619	30									<7E-3					
2006-10-31	ER060617	35									<5E-3					
2006-11-06	ER060627	30									<9E-3					
2006-11-06	ER060625	35									<9E-3					
2006-11-14	ER060637	30									<5E-3					
2006-11-14	ER060635	35									<8E-3					
2006-11-21	ER060647	30									<1.0E-2					
2006-11-21	ER060645	35									<1.0E-2					
2006-11-28	ER060666	30									<1.2E-2					
2006-11-28	ER060664	35									<7E-3					

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-12-05	ER060670	30									<5E-3					
2006-12-05	ER060668	35									<7E-3					
2006-12-12	ER060679	30									<5E-3					
2006-12-12	ER060677	35									<7E-3					
2006-12-19	ER060696	30									<1.3E-2					
2006-12-19	ER060694	35									<2.0E-2					
2006-12-27	ER060700	30									<6E-3					
2006-12-27	ER060698	35									<1.0E-2					
Air Particulate pCi/m³																
2006-01-04	ER060013	30	3.6E-2													
2006-01-04	ER060011	35	3.8E-2													
2006-01-10	ER060025	30	2.4E-2													
2006-01-10	ER060023	35	2.3E-2													
2006-01-17	ER060039	30	1.8E-2													
2006-01-17	ER060037	35	1.7E-2													
2006-01-24	ER060058	30	2.2E-2													
2006-01-24	ER060056	35	2.2E-2													
2006-01-31	ER060066	30	2.1E-2													
2006-01-31	ER060064	35	2.1E-2													
2006-02-07	ER060096	30	2.5E-2													
2006-02-07	ER060094	35	2.6E-2													
2006-02-14	ER060110	30	2.4E-2													
2006-02-14	ER060108	35	2.5E-2													
2006-02-21	ER060118	30	1.8E-2													
2006-02-21	ER060116	35	1.8E-2													
2006-02-28	ER060132	30	2.8E-2													
2006-02-28	ER060134	35	2.6E-2													
2006-03-07	ER060145	30	3.4E-2													
2006-03-07	ER060143	35	3.2E-2													
2006-03-14	ER060154	30	2.6E-2													
2006-03-14	ER060152	35	2.6E-2													
2006-03-21	ER060165	30	2.1E-2													
2006-03-21	ER060163	35	2.0E-2													
2006-03-28	ER060169	30	2.4E-2													
2006-03-28	ER060167	35	2.3E-2													
2006-04-04	ER060204	30	2.5E-2													
2006-04-04	ER060202	35	2.4E-2													
2006-04-11	ER060213	30	2.9E-2													
2006-04-11	ER060211	35	2.9E-2													
2006-04-18	ER060243	30	2.2E-2													
2006-04-18	ER060241	35	2.2E-2													
2006-04-25	ER060247	30	2.5E-2													
2006-04-25	ER060245	35	2.3E-2													
2006-05-02	ER060265	30	2.4E-2													
2006-05-02	ER060263	35	2.5E-2													
2006-05-09	ER060274	30	2.1E-2													
2006-05-09	ER060272	35	2.2E-2													
2006-05-16	ER060282	30	2.2E-2													
2006-05-16	ER060280	35	2.2E-2													

Environmental Sample Results

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-05-22	ER060290	30	2.8E-2													
2006-05-22	ER060288	35	2.7E-2													
2006-05-30	ER060299	30	1.9E-2													
2006-05-30	ER060297	35	1.9E-2													
2006-06-06	ER060317	30	2.6E-2													
2006-06-06	ER060315	35	2.6E-2													
2006-06-13	ER060326	30	3.2E-2													
2006-06-13	ER060324	35	3.5E-2													
2006-06-21	ER060334	30	2.2E-2													
2006-06-21	ER060332	35	2.3E-2													
2006-06-27	ER060346	30	2.1E-2													
2006-06-27	ER060344	35	2.3E-2													
2006-07-05	ER060356	30	2.1E-2													
2006-07-05	ER060354	35	2.1E-2													
2006-07-11	ER060373	30	2.1E-2													
2006-07-11	ER060371	35	2.1E-2													
2006-07-19	ER060414	30	1.9E-2													
2006-07-19	ER060412	35	1.9E-2													
2006-07-25	ER060427	30	1.6E-2													
2006-07-25	ER060425	35	1.7E-2													
2006-08-01	ER060435	30	1.7E-2													
2006-08-01	ER060433	35	1.3E-2													
2006-08-09	ER060443	30	1.9E-2													
2006-08-09	ER060441	35	1.9E-2													
2006-08-17	ER060451	30	2.0E-2													
2006-08-17	ER060449	35	2.0E-2													
2006-08-22	ER060463	30	2.1E-2													
2006-08-22	ER060461	35	2.0E-2													
2006-08-29	ER060479	30	2.0E-2													
2006-08-29	ER060477	35	1.9E-2													
2006-09-05	ER060488	30	3.6E-2													
2006-09-05	ER060486	35	3.5E-2													
2006-09-12	ER060496	30	3.2E-2													
2006-09-12	ER060494	35	3.1E-2													
2006-09-19	ER060505	30	1.9E-2													
2006-09-19	ER060503	35	1.8E-2													
2006-09-26	ER060510	30	2.3E-2													
2006-09-26	ER060508	35	2.3E-2													
2006-10-04	ER060531	30	3.7E-2													
2006-10-04	ER060529	35	3.8E-2													
2006-10-11	ER060572	30	4.0E-2													
2006-10-11	ER060570	35	4.1E-2													
2006-10-17	ER060586	30	2.0E-2													
2006-10-17	ER060584	35	2.0E-2													
2006-10-24	ER060603	30	2.5E-2													
2006-10-24	ER060601	35	2.6E-2													
2006-10-31	ER060618	30	3.2E-2													
2006-10-31	ER060616	35	3.1E-2													
2006-11-06	ER060626	30	3.1E-2													
2006-11-06	ER060624	35	3.3E-2													

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
2006-11-14	ER060636	30	2.9E-2													
2006-11-14	ER060634	35	2.6E-2													
2006-11-21	ER060646	30	3.0E-2													
2006-11-21	ER060644	35	3.0E-2													
2006-11-28	ER060665	30	2.2E-2													
2006-11-28	ER060663	35	2.3E-2													
2006-12-05	ER060669	30	3.8E-2													
2006-12-05	ER060667	35	3.5E-2													
2006-12-12	ER060678	30	2.2E-2													
2006-12-12	ER060676	35	2.6E-2													
2006-12-19	ER060695	30	2.2E-2													
2006-12-19	ER060693	35	2.2E-2													
2006-12-27	ER060699	30	2.4E-2													
2006-12-27	ER060697	35	2.5E-2													
Air Particulate Composite pCi/Sample																
2006-04-17	ER060221	30		<7.0	<2.2	<2.5	<2.3	<2.6	<4.6		<2.1	<3.0	<2.2	<2.3	<5.2	<3.6
2006-04-17	ER060222	35		<8.9	<2.9	<3.7	<2.5	<3.1	<5.6		<2.6	<3.6	<3.0	<2.9	<6.8	<4.7
2006-07-17	ER060360	30		<6.7	<1.9	<2.3	<2.1	<2.2	<4.4		<2.1	<2.8	<2.3	<2.3	<5.5	<3.8
2006-07-17	ER060361	35		<8.9	<3.0	<4.0	<2.4	<3.1	<5.9		<2.6	<3.4	<3.1	<2.7	<7.1	<5.3
2006-10-19	ER060578	30		<9.7	<2.9	<3.6	<3.4	<3.2	<6.2		<3.0	<3.9	<3.1	<3.2	<7.4	<5.5
2006-10-19	ER060579	35		<1.1E+1	<3.4	<3.6	<3.1	<3.4	<6.4		<3.1	<3.8	<3.3	<3.2	<7.6	<5.7
2007-01-31	ER070064	30		<9.9	<3.2	<3.4	<3.0	<3.4	<6.2		<3.0	<3.9	<3.4	<3.4	<7.5	<5.6
2007-01-31	ER070065	35		<6.9	<2.3	<2.5	<2.1	<2.6	<4.1		<2.3	<2.9	<2.4	<2.4	<5.5	<3.6
Fish pCi/kg																
2006-05-02	ER060279	53		<1.22E+2	<1.9E+1	<2.0E+1	<1.8E+1	<1.9E+1	<4.0E+1		<5.6E+1	<3.9E+1	<1.8E+1	<2.2E+1	<3.9E+1	<3.3E+1
2006-10-17	ER060592	53		<8.3E+1	<1.8E+1	<1.8E+1	<1.8E+1	<2.0E+1	<3.8E+1		<3.3E+1	<2.6E+1	<1.9E+1	<2.0E+1	<3.7E+1	<3.2E+1
Food Product pCi/kg																
2006-04-26	ER060260	35		<6.5E+1	<1.4E+1	<1.5E+1	<1.4E+1	<1.6E+1	<3.2E+1		<2.4E+1	<2.1E+1	<1.4E+1	<1.6E+1	<3.3E+1	<2.5E+1
2006-04-26	ER060261	63		<6.8E+1	<1.4E+1	<1.3E+1	<1.2E+1	<1.3E+1	<2.9E+1		<2.7E+1	<2.1E+1	<1.4E+1	<1.5E+1	<3.2E+1	<2.5E+1
2006-09-26	ER060514	30		<6.5E+1	<1.4E+1	<1.5E+1	<1.4E+1	<1.5E+1	<3.2E+1		<2.5E+1	<2.1E+1	<1.5E+1	<1.6E+1	<3.4E+1	<2.6E+1
2006-09-26	ER060513	35		<6.1E+1	<1.4E+1	<1.4E+1	<1.3E+1	<1.4E+1	<2.8E+1		<2.3E+1	<1.8E+1	<1.3E+1	<1.5E+1	<3.1E+1	<2.4E+1
2006-11-14	ER060638	35		<5.5E+1	<1.3E+1	<1.3E+1	<1.2E+1	<1.3E+1	<2.6E+1		<2.0E+1	<1.6E+1	<1.3E+1	<1.4E+1	<2.8E+1	<2.3E+1
2006-11-14	ER060639	63		<5.6E+1	<1.3E+1	<1.3E+1	<1.2E+1	<1.4E+1	<2.9E+1		<2.0E+1	<1.6E+1	<1.2E+1	<1.4E+1	<3.1E+1	<2.4E+1
Sediment pCi/kg																
2006-04-03	ER060207	52		<3.23E+2	<8.7E+1	<7.1E+1	<9.3E+1	<8.1E+1	<1.62E+2		<1.22E+2	<1.05E+2	<8.8E+1	<9.0E+1	<2.26E+2	<1.42E+2
Vegetation for Milk pCi/kg																
2006-01-17	ER060041	04		<4.5E+1	<9.5	<9.2	<8.4	<9.2	<2.1E+1		<1.6E+1	<1.2E+1	<8.9	<9.9	<2.3E+1	<1.7E+1
2006-02-21	ER060120	30		<2.8E+1	<6.1	<6.7	<6.0	<6.6	<1.5E+1		<9.6	<7.5	<6.3	<6.9	<1.7E+1	<1.2E+1
2006-04-26	ER060262	30		<6.9E+1	<1.4E+1	<1.5E+1	<1.3E+1	<1.4E+1	<3.4E+1		<2.6E+1	<2.0E+1	<1.4E+1	<1.6E+1	<3.5E+1	<2.5E+1
2006-05-30	ER060301	04		<3.7E+1	<9.6	<1.1E+1	<8.6	<9.7	<2.2E+1		<1.2E+1	<1.1E+1	<9.7	<9.5	<2.4E+1	<1.8E+1
2006-06-27	ER060348	30		<5.5E+1	<1.2E+1	<1.4E+1	<1.1E+1	<1.1E+1	<2.9E+1		<2.2E+1	<1.7E+1	<1.1E+1	<1.3E+1	<2.9E+1	<2.1E+1
2006-07-20	ER060417	30		<4.3E+1	<1.1E+1	<1.2E+1	<9.0	<1.1E+1	<2.3E+1		<1.5E+1	<1.2E+1	<1.1E+1	<1.1E+1	<2.5E+1	<1.8E+1
2006-08-22	ER060465	04		<3.5E+1	<1.0E+1	<1.2E+1	<9.8	<1.1E+1	<2.5E+1		<1.1E+1	<1.2E+1	<1.1E+1	<1.1E+1	<2.7E+1	<1.8E+1
2006-09-19	ER060507	63		<3.6E+1	<9.7	<1.2E+1	<9.8	<1.1E+1	<2.5E+1		<1.2E+1	<1.1E+1	<1.1E+1	<1.1E+1	<2.7E+1	<1.7E+1
2006-10-25	ER060605	04		<3.8E+1	<9.2	<1.1E+1	<8.3	<9.7	<2.2E+1		<1.3E+1	<1.1E+1	<9.2	<9.6	<2.4E+1	<1.6E+1
2006-11-21	ER060648	04		<5.8E+1	<1.3E+1	<1.4E+1	<1.2E+1	<1.3E+1	<3.1E+1		<2.1E+1	<1.7E+1	<1.2E+1	<1.5E+1	<3.1E+1	<2.3E+1

Environmental Sample Results

Date	Lab. No.	Station	Beta	Ba-140	Co-58	Co-60	Cs-134	Cs-137	Fe-59	H-3	I-131	La-140	Mn-54	Nb-95	Zn-65	Zr-95
Water-Surface pCi/l																
2006-01-10	ER060027	54	4.2	<8.5	<2.2	<2.1	<2.0	<2.2	<3.9		<2.7	<2.6	<2.1	<2.2	<4.2	<3.7
2006-01-30	ER060068	52	3.5E+1	<9.0	<2.2	<2.1	<2.0	<2.2	<4.2		<3.0	<2.8	<2.2	<2.3	<4.6	<3.7
2006-02-07	ER060098	46	7.9	<7.1	<1.9	<1.9	<1.8	<2.1	<3.7		<2.4	<2.6	<1.8	<1.9	<4.0	<3.2
2006-02-27	ER060130	52	3.4E+1	<9.6	<1.9	<1.9	<1.9	<2.0	<4.1		<3.9	<3.5	<2.0	<2.2	<4.4	<3.6
2006-03-07	ER060147	54	6.4	<8.6	<2.1	<2.2	<2.0	<2.2	<4.1		<2.7	<2.8	<2.1	<2.2	<4.5	<3.8
2006-04-03	ER060206	52	3.4E+1	<7.9	<1.9	<2.1	<1.9	<2.1	<3.8		<2.8	<3.0	<1.9	<2.1	<4.1	<3.2
2006-04-05	ER060208	54	8.0	<7.9	<2.0	<1.9	<1.9	<2.1	<4.0		<2.9	<3.1	<1.9	<2.1	<3.7	<3.2
2006-05-01	ER060267	52	2.6E+1	<7.6	<1.8	<2.1	<1.9	<2.1	<3.8		<2.5	<2.7	<1.9	<2.0	<4.1	<3.4
2006-05-09	ER060276	54	7.8	<1.1E+1	<2.3	<2.0	<1.9	<2.2	<4.5		<3.8	<3.3	<2.2	<2.4	<4.5	<3.8
2006-05-18	ER060292	52	2.8E+1	<8.7	<1.9	<2.0	<1.8	<2.1	<4.2		<3.2	<3.4	<1.8	<2.1	<4.2	<3.4
2006-06-06	ER060319	46	4.5	<7.0	<1.8	<1.9	<1.9	<2.1	<3.9		<2.4	<2.9	<1.9	<2.0	<3.9	<3.3
2006-06-28	ER060349	52	2.6E+1	<7.9	<1.9	<2.0	<1.8	<1.9	<3.8		<2.8	<3.0	<1.9	<2.1	<4.2	<3.3
2006-07-11	ER060375	54	7.0	<7.2	<1.9	<1.9	<1.9	<2.0	<3.6		<2.3	<2.6	<1.7	<2.0	<3.7	<3.2
2006-07-20	ER060416	52	1.5E+1	<7.9	<1.8	<1.9	<1.8	<2.0	<3.7		<2.9	<3.1	<1.8	<1.9	<4.1	<3.5
2006-08-09	ER060445	54	5.7	<7.1	<1.8	<2.0	<1.8	<2.0	<3.7		<2.3	<2.4	<1.8	<2.0	<4.0	<3.0
2006-08-24	ER060481	52	1.2E+1	<1.4E+1	<2.1	<2.1	<1.9	<2.0	<4.6		<5.5	<4.6	<1.9	<2.5	<4.1	<3.6
2006-09-12	ER060498	46	6.0	<7.4	<1.9	<2.0	<1.9	<1.9	<4.0		<2.4	<2.6	<1.9	<2.0	<4.2	<3.3
2006-09-21	ER060512	52	3.6E+1	<9.0	<2.0	<2.1	<1.9	<2.1	<4.2		<3.6	<3.7	<1.9	<2.1	<4.1	<3.4
2006-10-11	ER060574	54	<4.0	<8.3	<1.9	<2.0	<1.9	<2.2	<4.0		<3.0	<3.1	<1.9	<2.1	<3.9	<3.3
2006-10-24	ER060606	52	2.2E+1	<9.7	<2.2	<2.2	<2.2	<2.4	<4.4		<3.7	<3.2	<2.2	<2.5	<4.7	<3.9
2006-11-08	ER060628	46	8.4	<8.3	<2.3	<2.2	<2.4	<2.4	<4.2		<2.7	<2.7	<2.2	<2.3	<4.6	<3.9
2006-11-22	ER060649	52	1.9E+1	<9.2	<2.0	<2.1	<1.9	<2.1	<3.8		<3.4	<3.4	<1.9	<2.2	<4.0	<3.5
2006-12-05	ER060671	46	6.2	<1.1E+1	<2.2	<2.2	<2.2	<2.3	<4.4		<3.7	<3.1	<2.2	<2.5	<4.7	<4.0
2006-12-13	ER060680	52	2.7E+1	<9.5	<2.3	<2.2	<2.2	<2.3	<4.4		<3.4	<3.1	<2.1	<2.4	<4.4	<4.1
Water-Surface Composite pCi/l																
2006-06-13	ER060223	52								<1.0E+3						
2006-06-13	ER060224	54								<1.0E+3						
2006-08-08	ER060362	52								<1.0E+3						
2006-08-08	ER060363	54								<1.0E+3						
2006-10-30	ER060581	52								<1.0E+3						
2006-10-30	ER060580	54								<1.0E+3						
2007-02-01	ER070068	46								<1.0E+3						
2007-02-01	ER070069	52								<1.0E+3						

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Radioactive Waste

Processors

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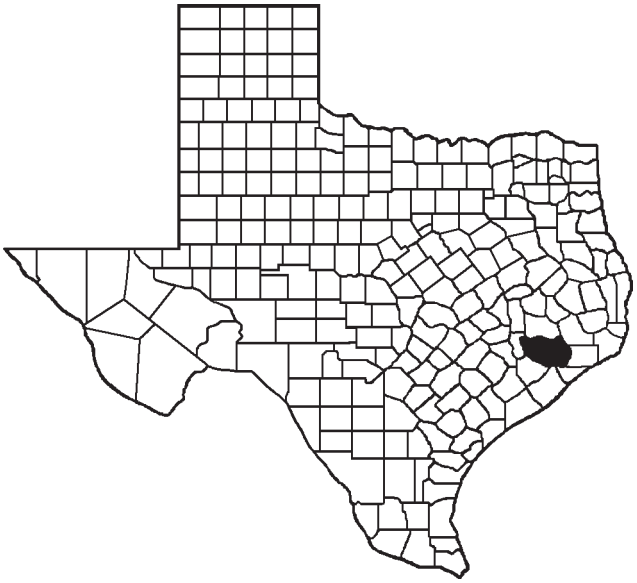
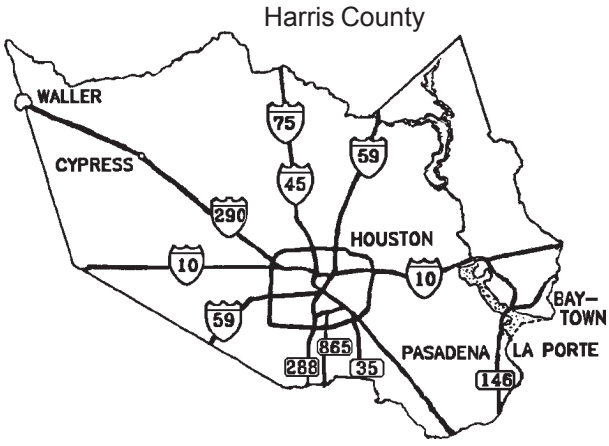
Nuclear Sources and Services, Inc.

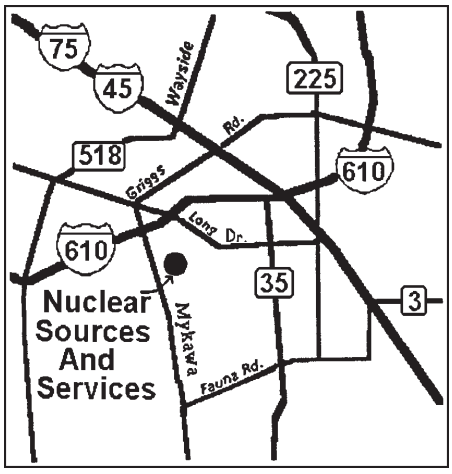
Radiation Branch Site No. 023

The Nuclear Sources and Services, Inc. (NSSI) facility occupies approximately five acres in a light industrial area of Southeast Houston approximately four miles northwest of William P. Hobby Airport. The primary activities of NSSI currently are waste treatment, storage, and disposal of radioactive and chemical hazardous materials. NSSI receives wastes from a variety of off-site generators both inside and outside of Texas. At the conclusion of treatment or storage, the residues are shipped to permitted off-site facilities for disposal. The Radiation Branch surveillance program consists of soil sampling and TLD monitoring.





Shaded area indicates location of Harris County



Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security --
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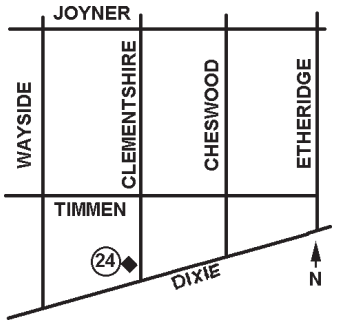

Thermoluminescent Dosimeter (TLD) Monitoring Results[1]
(quarterly and annual readings are in mrem)

Station	Q1	Q2	Q3	Q4	Annual[2] Dose	Notes
03	99.7	107.7	167.0	131.0	505.4	
04	41.2	65.9	38.0	123.0	268.1	
06	6.5	4.6	5.0	9.0	25.1	
07	183.1	20.4	62.0	43.0	308.5	
11	3.3	2.8	1.0	2.0	9.1	
12	118.1	9.3	11.0	7.0	145.4	
16	18.4	28.8	25.0	27.0	99.2	
18	1.1	4.6	35.0	4.0	44.7	Q2-photon & beta evaluation only
19	15.2	22.3	19.0	19.0	75.5	
20	10.8	13.9	16.0	19.0	59.7	
21	112.7	146.7	227.0	99.0	585.4	
22	1.1	1.9	3.0	3.0	9.0	
23	2.2	4.6	4.0	9.0	19.8	
24	1.1	0.9	1.0	1.0	4.0	Background TLD provided by Landauer, Inc.
24	16.3	13.0	13.0	15.0	57.3	Background
25	176.6	99.4	150.0	138.0	564.0	
41	20.6	60.4	69.0	60.0	210.0	

NOTE: [1]Combined neutron/gamma dosimeters are deployed at this facility. Exposure reported includes neutron and gamma doses.
[2]Occupancy factors not provided. Occupancy factors have been requested from licensee.

Environmental Sample Results

Date	Lab No.	Station	Alpha	Ra-226*	Am-241	Co-60	Cs-137	I-125	Ra-226
Soil µCi/g									
2006-01-12	ER060033	26	1.9E-5	9E-7	<3E-7	<2E-7	6.9E-6	<6E-7	<3.3E-6
2006-01-12	ER060034	28	2.2E-5	4E-7	<3E-7	<2E-7	<2E-7	<7E-7	<3.6E-6
2006-04-06	ER060199	26	1.8E-5	8E-7	<3E-7	<2E-7	9.1E-6	<3E-7	<3.5E-6
2006-04-06	ER060200	28	1.9E-5	1.0E-6	<2E-7	<1E-7	<2E-7	<2E-7	<2.2E-6
2006-07-13	ER060386	26	1.3E-5	1.1E-6	<3E-7	<2E-7	8E-7	<2E-7	<2.5E-6
2006-07-13	ER060387	28	<1.2E-5	1.2E-6	<3E-7	<2E-7	<2E-7	<2E-7	<2.4E-6
2006-10-12	ER060568	26	1.5E-5	1.0E-6	<4E-7	<2E-7	1.1E-5	<3E-7	<4.0E-6
2006-10-12	ER060569	28	2.0E-5	9E-7	<3E-7	<2E-7	<2E-7	<2E-7	<2.6E-6

NOTE: *Indicates the analysis was by alpha spectrometry, or if Ra-226, analysis by radon emanation.

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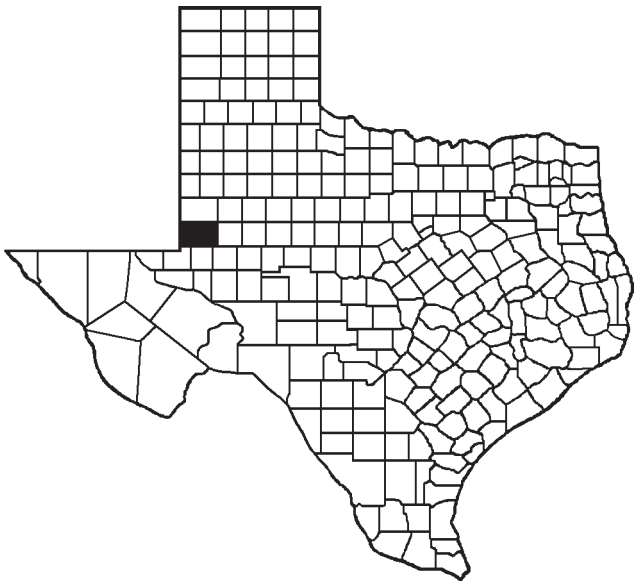
Waste Control Specialists

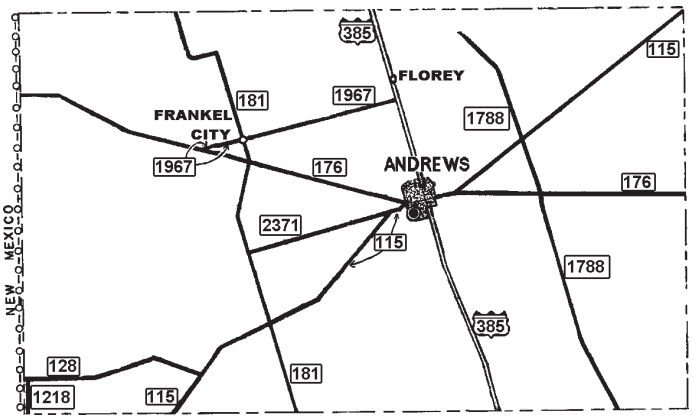
Radiation Branch Site No. 048

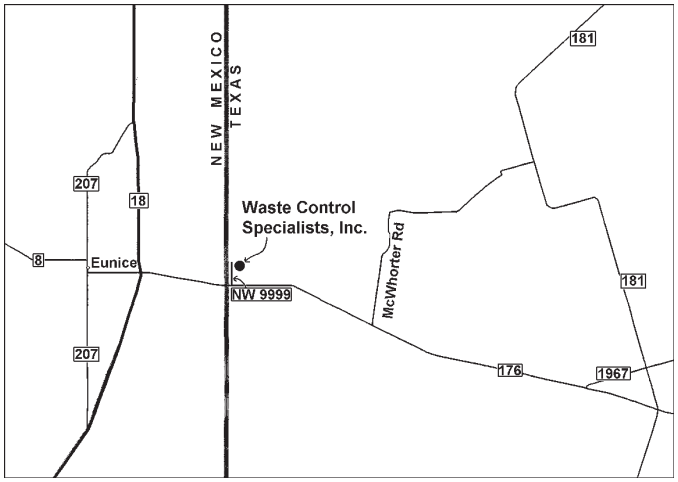
Waste Control Specialists (WCS) facility occupies 14,400 acres, in Andrews County approximately 30 miles west of Andrews on the Texas-New Mexico border. Approximately 1,300 acres are devoted to low-level radioactive waste storage. The primary activities of WCS currently are treatment, storage, and disposal of radioactive and hazardous wastes. The Radiation Branch surveillance program consists of sampling sewage, soil, and water and TLD monitoring.



Shaded area indicates location of Andrews County

Andrews County

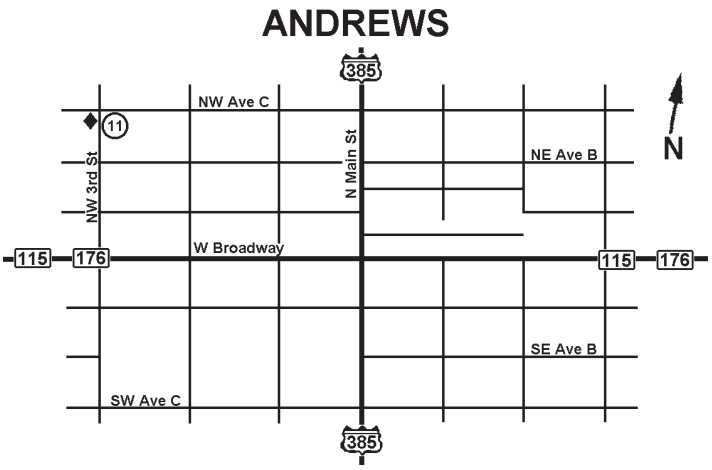




Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station

Homeland Security --
Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Note*
01	--	--	--	--	--	TLD removed due to future site expansion
02	1.1	0.0	0.0	1.9	3.0	
03	0.0	0.0	0.0	0.0	0.0	
04	0.0	0.0	0.0	0.0	0.0	
05	0.0	0.0	0.0	0.0	0.0	
11	28.4	20.0	21.7	20.9	91.0	Background

NOTE: *Value does not include 1/48 occupancy factor for TLD stations 2, 4, and 5 or 1/20 occupancy factor for TLD station 3.

Environmental Sample Results

Date	Lab No.	Station	Alpha	Beta	Pu-239[1]	Ra-226[1]	Th-232[1]	U-234[1]	U-238[1]	Cs-137
Sewage µCi/ml										
2006-04-13	ER060234	12	--	--	1.0E-8	8.8E-9	2.4E-9	3.73E-7	1.82E-7	<6.7E-9
Soil µCi/g										
2006-01-23	ER060049	01[2]	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-01-23	ER060051	02	--	--	--	5E-7	--	<1.0E-6	<1.0E-6	--
2006-01-23	ER060052	04	--	--	--	8E-7	--	<1.0E-6	<1.0E-6	--
2006-01-23	ER060053	05	--	--	--	9E-7	--	<1.0E-6	<1.0E-6	--
2006-01-23	ER060054	09	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	2E-7
2006-04-13	ER060227	01[2]	--	--	--	1.4E-6	--	1.0E-6	1.0E-6	--
2006-04-13	ER060229	02	--	--	--	6E-7	--	<1.0E-6	<1.0E-6	--
2006-04-13	ER060230	04	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-04-13	ER060231	05	--	--	--	4E-7	--	<1.0E-6	<1.0E-6	--
2006-04-13	ER060232	09	--	--	--	9E-7	--	<1.0E-6	<1.0E-6	1E-7
2006-07-13	ER060389	01[2]	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-07-13	ER060391	02	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-07-13	ER060392	04	--	--	--	8E-7	--	<1.0E-6	<1.0E-6	1E-7
2006-07-13	ER060393	05	--	--	--	5E-7	--	<1.0E-6	<1.0E-6	--
2006-07-13	ER060394	09	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	2E-7
2006-10-05	ER060536	01[2]	--	--	--	1.5E-6	--	1.0E-6	1.1E-6	--
2006-10-05	ER060538	02	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-10-05	ER060539	04	--	--	--	8E-7	--	<1.0E-6	<1.0E-6	--
2006-10-05	ER060540	05	--	--	--	7E-7	--	<1.0E-6	<1.0E-6	--
2006-10-05	ER060541	09	--	--	--	6E-7	--	<1.0E-6	<1.0E-6	1E-7
Water-Monitor Well µCi/ml										
2006-01-23	ER060050	01[2]	3.4E-8	4.5E-8	--	1.1E-9	--	2.2E-8	9.0E-9	--
2006-01-23	ER060055	09	<2.0E-9	5.3E-9	--	8E-10	--	1.0E-9	<1.0E-9	--
2006-04-13	ER060228	01[2]	3.3E-8	4.5E-8	--	1.0E-9	--	2.0E-8	8.5E-9	--
2006-04-13	ER060233	09	3.2E-9	4.1E-9	--	<1E-10	--	1.1E-9	<1.0E-9	--
2006-07-13	ER060390	01[2]	4.2E-8	3.6E-8	--	1.2E-9	--	2.1E-8	9.6E-9	--
2006-07-13	ER060395	09	2.1E-9	3.6E-9	--	1.0E-9	--	1.0E-9	<1.0E-9	--
2006-10-05	ER060537	01[2]	3.3E-8	3.2E-8	--	1.0E-9	--	2.3E-8	9.5E-9	--
2006-10-05	ER060542	09	2.4E-9	7.2E-9	--	1.1E-9	--	1.0E-9	<1.0E-9	--

NOTE: [1]Indicates the analysis was by alpha spectrometry, or if Ra-226, analysis by radon emanation.
[2]Alternate for Station 1 at/near WCS Well DW-35A while Licensing Branch evaluates site for permanent monitoring station.

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Research Reactors

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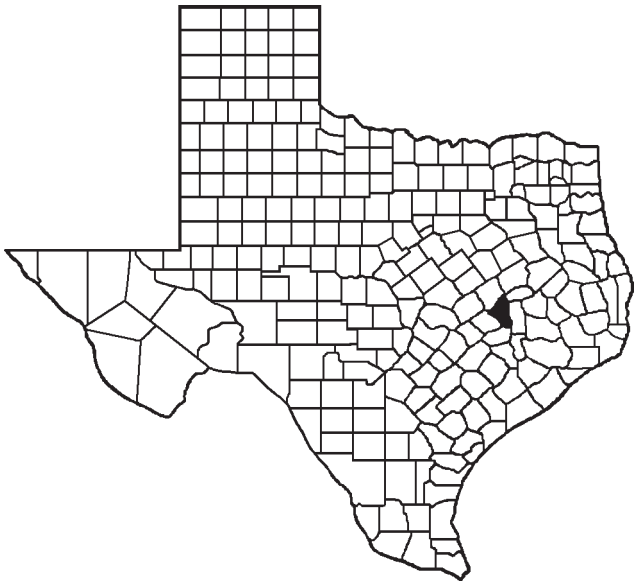
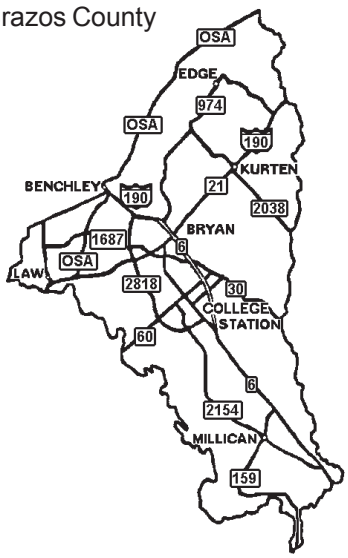
Texas A & M University Nuclear Science Center

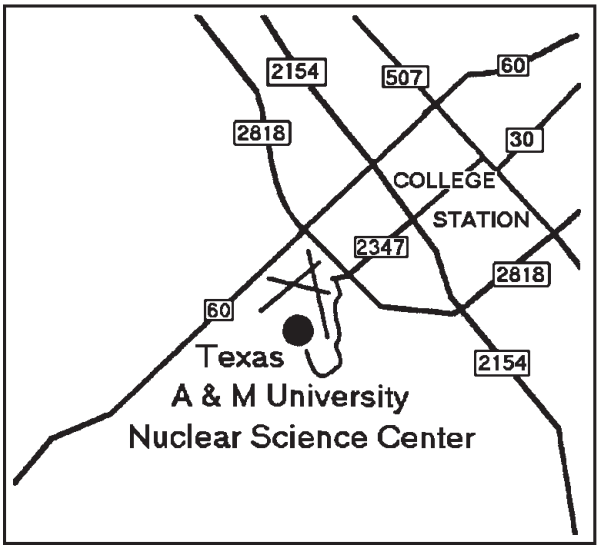
Radiation Branch Site No. 001

Texas A&M Nuclear Science Center (NSC) is located seven miles south of downtown Bryan just south of Easterwood Airport. NSC houses a one-megawatt TRIGA (Testing, Research, Isotope Production, General Atomics) research reactor that came online in 1961. The Radiation Branch surveillance program consists of sediment sampling and TLD monitoring.



Shaded area indicates location of Brazos County

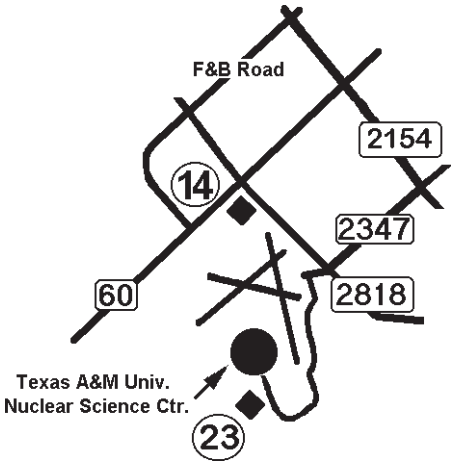




Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security --
Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual[2] Dose*	*Notes*
02	2.9	2.1	3.3	3.1	11.4	
03	0.0	0.0	1.1	0.0	1.1	
04	4.8	3.1	4.4	3.9	16.2	
05	0.0	0.0	1.1	0.0	1.1	
10	0.0	0.0	1.1	0.0	1.1	
11	0.0	0.0	0.0	0.0	0.0	
14	--	14.5	15.5	14.0	58.7	Background; [1]Q1 TLD missing
18	1.0	0.0	1.1	0.0	2.1	
19	0.0	0.0	0.0	0.0	0.0	
20	1.0	0.0	0.0	0.0	1.0	
21	0.0	0.0	0.0	0.0	0.0	
22	0.0	0.0	0.0	0.0	0.0	
23	17.2	17.6	16.6	14.8	66.2	Background

NOTE: [1]If data are missing during a quarter, an average of known quarter readings for that year and location is used to fill in for the missing data.
[2]Value does not include 1/16 occupancy factor.

Texas A & M University Nuclear Science Center

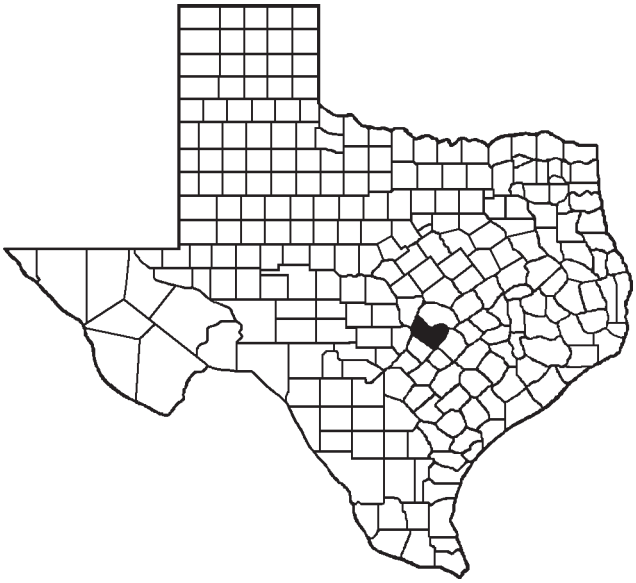
Date	*Lab No.*	*Station*	*Ba-140*	*Co-58*	*Co-60*	*Cs-134*	*Cs-137*	*Fe-59*	*I-131*	*La-140*	*Mn-54*	*Nb-95*	*Zn-65*	*Zr-95*
Sediment µCi/g														
2007-01-22	ER07006	16	<5E-7	<1E-7	<2E-7	<1E-7	<2E-7	<3E-7	<2E-7	<2E-7	1E-7	<2E-7	<4E-7	<2E-7
2007-04-05	ER07025	16	<7E-7	<1E-7	<2E-7	<2E-7	<1E-7	<3E-7	<3E-7	<2E-7	<2E-7	<2E-7	<3E-7	<2E-7
2007-07-13	ER07043	16	<5E-7	<2E-7	4E-7	<2E-7	<1E-7	<3E-7	<2E-7	<2E-7	6E-7	<2E-7	8E-7	<2E-7
2007-10-12	ER07057	16	<4E-7	<1E-7	2E-7	<1E-7	<2E-7	<2E-7	<2E-7	<2E-7	<2E-7	<2E-7	<3E-7	<2E-7

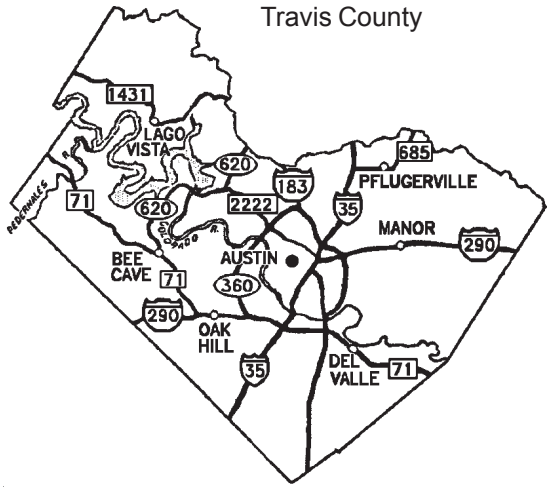
*Analysis for only I-131 was done due to submittal of incorrect laboratory analysis form.

University of Texas Nuclear Engineering Teaching Laboratory

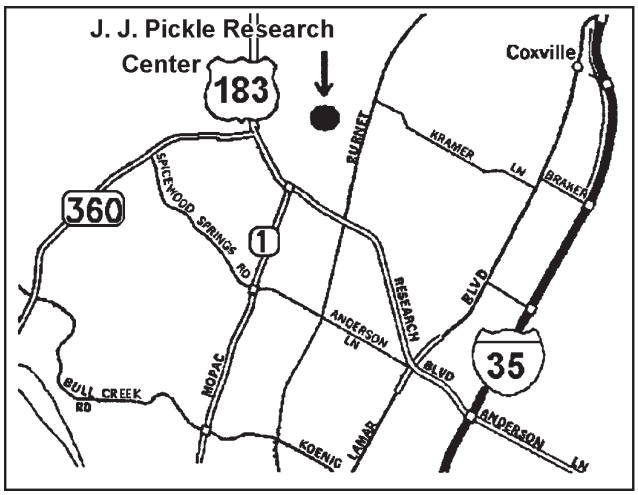
Radiation Branch Site No. 003

U. T. Nuclear Engineering Teaching Laboratory (NETL) is located at the J. J. Pickle Research Center, approximately five miles north of the Texas Department of State Health Services main campus. NETL houses an above-ground, fixed-core 1.1 megawatt TRIGA (Testing, Research, Isotope Production, General Atomics) research reactor that came online in 1992. The Radiation Branch surveillance program consists of sampling sewage and water and TLD monitoring.





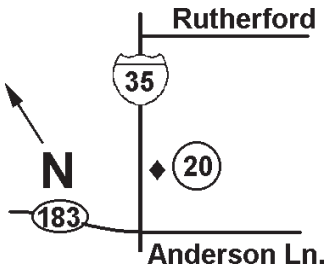
Shaded area indicates location of Travis County



Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station

Homeland Security --
Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Note*
01	0.0	0.0	0.0	0.0	0.0	
02	0.0	0.0	0.9	0.0	0.9	
03	0.0	0.0	0.9	0.0	0.9	
04	2.2	1.9	2.8	2.0	8.9	
05	1.1	0.9	0.9	0.0	2.9	
20	16.3	13.0	13.1	15.7	58.1	Background

NOTE: *Occupancy factors not provided.

University of Texas Nuclear Engineering Teaching Laboratory

Date	*Lab No.*	*Station*	*Ba-140*	*Co-58*	*Co-60*	*Cs-134*	*Cs-137*	*Fe-59*	*H-3*	*I-131*	*La-140*	*Mn-54*	*Nb-95*	*Zn-65*	*Zr-95*
Sewage µCi/ml															
2006-01-18	ER060036	08	<4.3E-8	<1.2E-8	<1.3E-8	<1.4E-8	<1.5E-8	<2.4E-8	<1.0E-6	<1.4E-8	<1.5E-8	<1.3E-8	<1.3E-8	<2.5E-8	<2.2E-8
2006-04-12	ER060210	09	<2.5E-8	<6.7E-9	<8.1E-9	<6.0E-9	<6.9E-9	<1.4E-8	<1.0E-6	<7.7E-9	<8.3E-9	<6.8E-9	<6.8E-9	<1.6E-8	<1.2E-8
2006-07-19	ER060407	08	<2.2E-8	<6.1E-9	<8.0E-9	<5.6E-9	<6.6E-9	<1.2E-8	<1.0E-6	<6.4E-9	<7.8E-9	<6.4E-9	<6.1E-9	<1.5E-8	<1.1E-8
2006-10-24	ER060594	09	<2.2E-8	<6.6E-9	<8.2E-9	<6.8E-9	<7.1E-9	<1.3E-8	<1.0E-6	<6.7E-9	<8.3E-9	<6.6E-9	<6.8E-9	<1.7E-8	<1.2E-8
Water-Surface pCi/ml															
2006-04-12	ER060209	07	<8.0E-9	<2.2E-9	<2.1E-9	<2.1E-9	<2.2E-9	<4.0E-9	2.27E-6	<2.5E-9	<2.5E-9	<2.2E-9	<2.3E-9	<4.8E-9	<3.9E-9
2006-07-19	ER060406	07	<7.0E-9	<1.9E-9	<2.0E-9	<1.9E-9	<2.0E-9	<3.8E-9	7.21E-6	<2.1E-9	<2.8E-9	<1.8E-9	<1.9E-9	<4.2E-9	<3.2E-9
2006-10-24	ER060593	07	<7.5E-9	<2.2E-9	<2.2E-9	<2.5E-9	<2.5E-9	<4.2E-9	<1.0E-6	<2.4E-9	<2.5E-9	<2.2E-9	<2.4E-9	<5.4E-9	<3.9E-9

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Other Facilities

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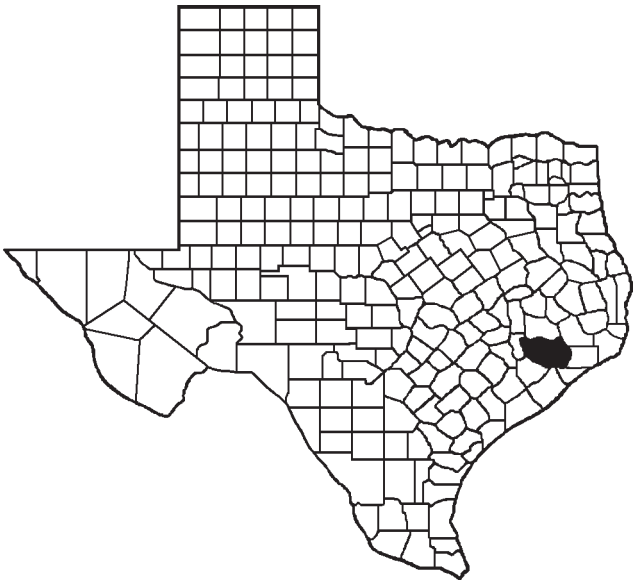
Gammatron, Inc.

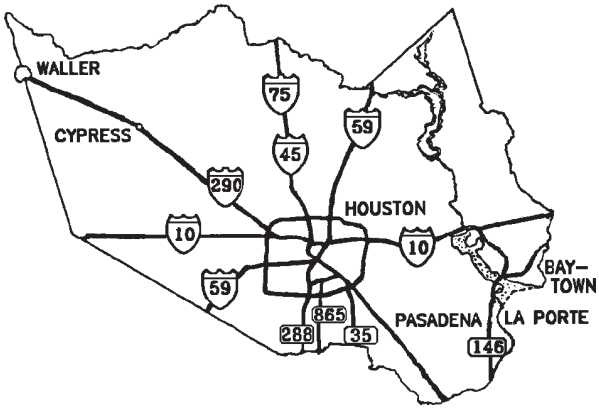
Radiation Branch Site No. 018

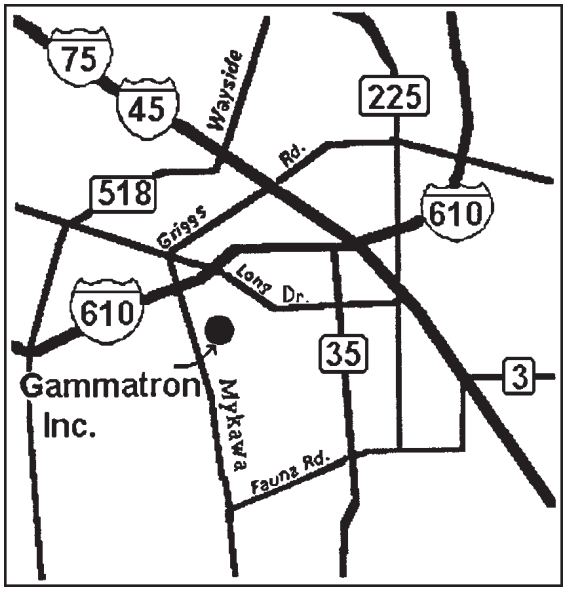
Gammatron, Inc. is a manufacturer of sealed radioactive sources, specializing in Am241Be and Am241Li neutron sources and Cs137 gamma sources. The facility is located in an industrial area of Houston approximately four miles northwest of William P. Hobby Airport. The Radiation Branch surveillance program consists of soil sampling and TLD monitoring.



Shaded area indicates location of Harris County

Harris County

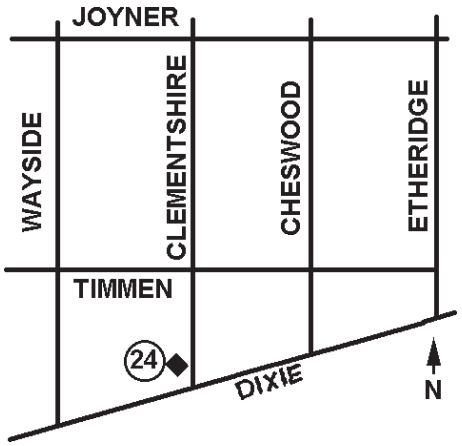




Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station

Homeland Security -- Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results[1]
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual[2] Dose*	*Notes*
03	250.3	338.9	241.0	188.0	1018.2	
05	112.7	234.9	351.0	422.0	1120.6	
08	225.3	159.7	177.0	177.0	739.0	
24	1.1	0.9	1.0	1.0	4.0	Background TLD provided by Landauer, Inc.
24	16.3	13.0	13.0	15.0	57.3	Background
30	58.5	78.0	63.0	66.0	265.5	
31	43.3	14.9	10.0	16.0	84.2	
34	238.3	209.9	186.0	204.0	838.2	
40	71.5	12.1	67.0	65.0	215.6	

NOTE: [1]Combined neutron/gamma dosimeters are deployed at this facility. Exposure reported includes neutron and gamma doses.
[2]Occupancy factors not provided. Occupancy factors have been requested from licensee.

Environmental Sample Results

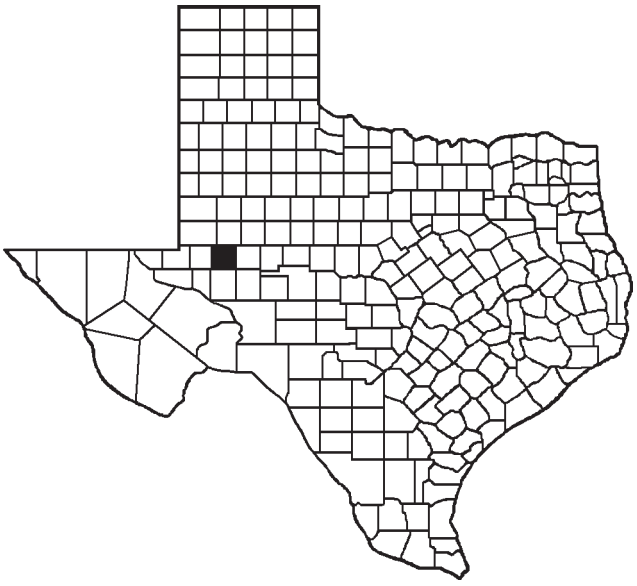
Date	*Lab No.*	*Station*	*Alpha*	*Ra-226**	*Am-241*	*Co-60*	*Cs-137*	*Ra-226*
Soil µCi/g								
2006-01-12	ER060035	31	2.0E-5	1.1E-6	<1.5E-6	<2E-7	2E-7	<3.0E-6
2006-04-06	ER060201	31	2.0E-5	1.2E-6	<3E-7	<2E-7	<2E-7	<2.5E-6
2006-07-13	ER060388	31	1.5E-5	1.1E-6	<2E-7	<1E-7	<2E-7	<2.0E-6
2006-10-12	ER060567	31	2.2E-5	1.1E-6	<3E-7	<2E-7	<2E-7	<2.6E-6

NOTE: *Indicates the analysis was by alpha spectrometry, or if Ra-226, analysis by radon emanation.

GeoCo, Inc.

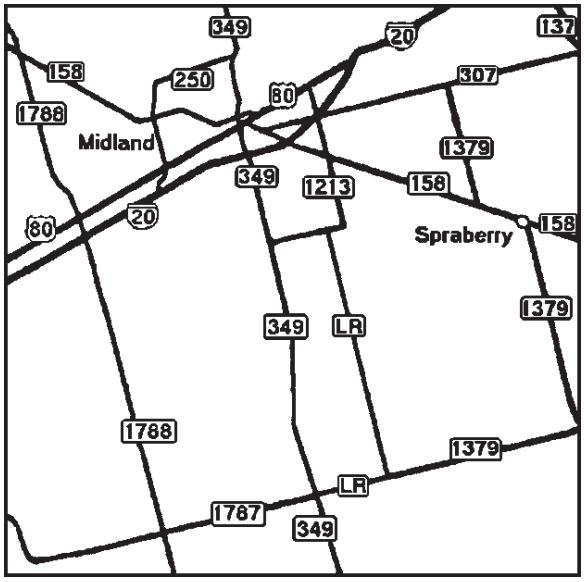
Radiation Branch Site No. 051

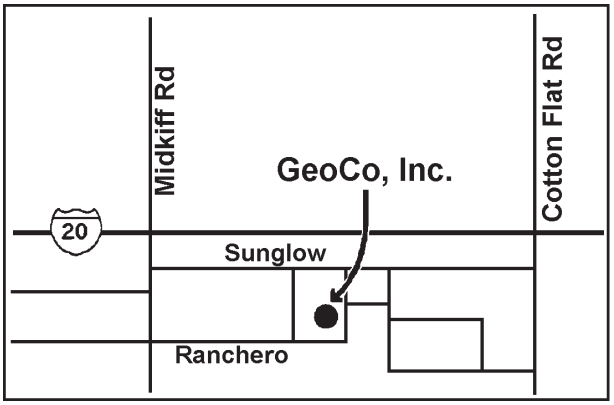
GeoCo, Inc. is a tracer studies company specializing in oil and gas wells. The facility is located in Midland approximately six miles east of Midland-Odessa International Airport. The Radiation Branch surveillance program consists of TLD monitoring.



Shaded area indicates location of Midland County

Midland County

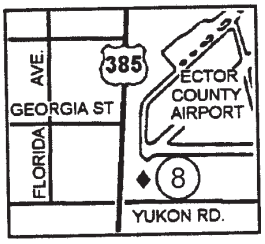




Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security -- Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

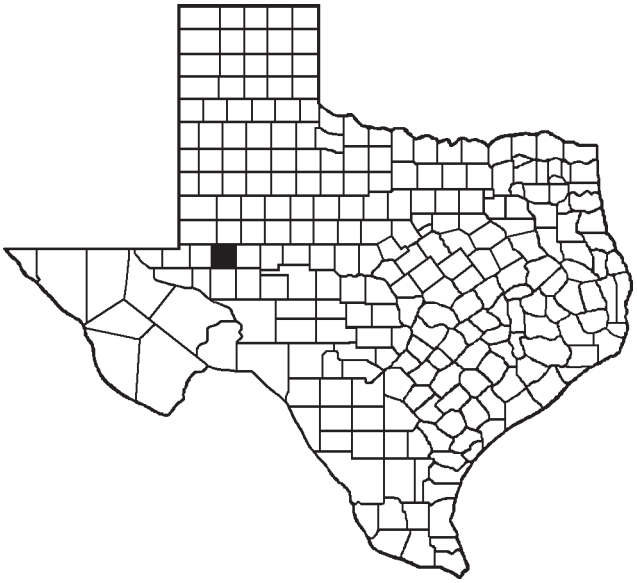
Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Notes*
01	61.0	56.6	46.0	148.8	312.4	
08	23.6	17.2	18.2	19.0	78.0	Background

Note: *Value does not include 1/10 occupancy factor.

Isotech Laboratories, Inc.

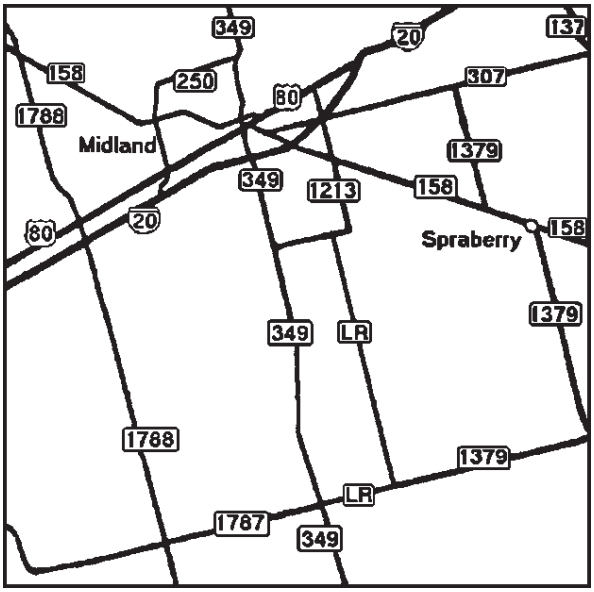
Radiation Branch Site No. 008

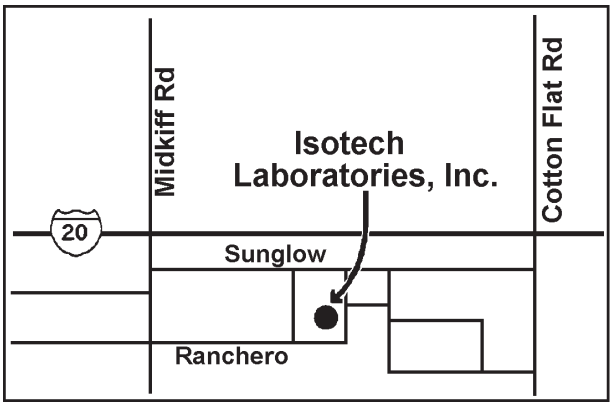
Isotech Laboratories, Inc. manufactures tracer material for the oil and gas industry, calibrates radiation detection instruments, and provides radiation safety training for well-logging and tracer services. The facility is located in Midland approximately six miles east of Midland-Odessa International Airport. The Radiation Branch surveillance program consists of TLD monitoring.



Shaded area indicates location of Midland County

Midland County

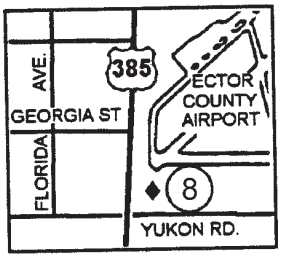




Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station

Homeland Security -- Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

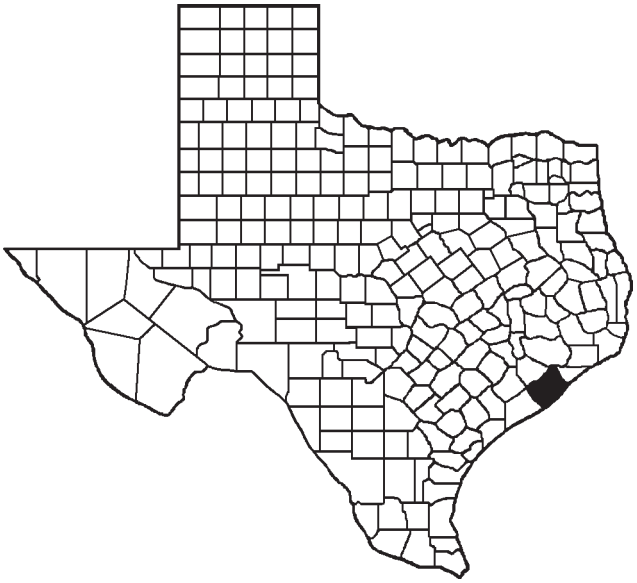
Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Notes*
01	8.6	6.1	7.5	12.3	34.5	
02	34.3	33.4	36.4	80.6	184.7	
03	26.8	25.3	32.1	61.6	145.8	
04	42.8	37.4	33.2	68.3	181.7	
06	156.3	93.0	51.4	63.5	364.2	
08	23.6	17.2	18.2	19.0	78.0	Background

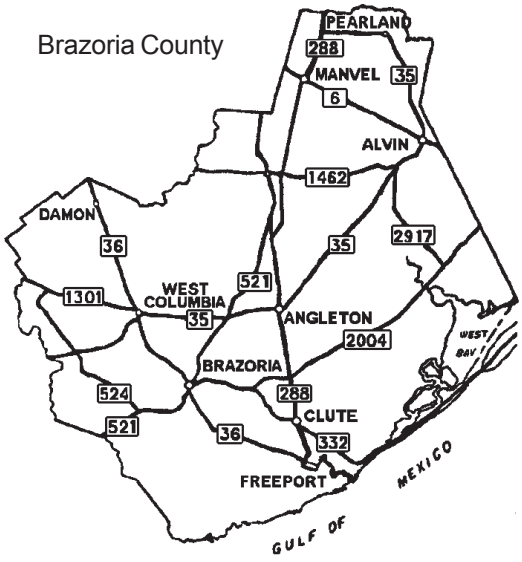
Note: *Value does not include 1/4 occupancy factor.

Iso-Tex, Inc.

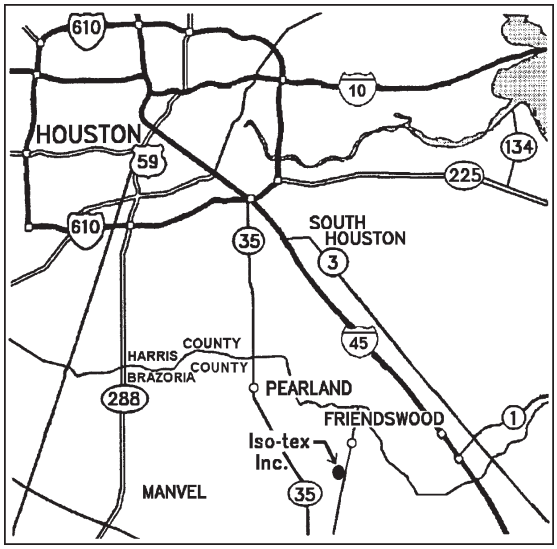
Radiation Branch Site No. 021

Iso-Tex, Inc. is an FDA licensed facility for drug manufacturing of radio-pharmaceuticals and radio-isotope labeling. The facility is located 17 miles south southeast of downtown Houston and approximately five miles southeast of Pearland on County Road 129. The Radiation Branch surveillance program consists of TLD monitoring.





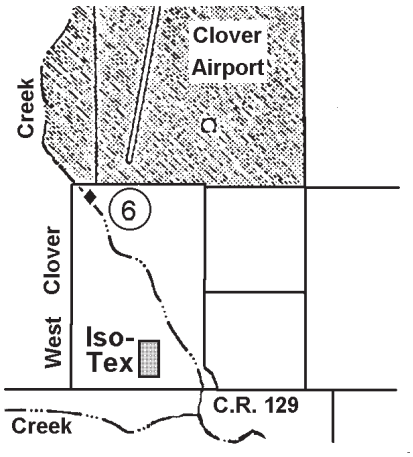
Shaded area indicates location of Brazoria County



Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station

Homeland Security --
Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Notes*
01	3.3	2.8	5.0	6.0	17.1	
06	14.1	11.1	12.0	13.0	50.2	Background
07	6.5	4.6	8.0	11.0	30.1	
10	4.3	9.3	6.0	7.0	26.6	

NOTE: *Occupancy factors not provided.

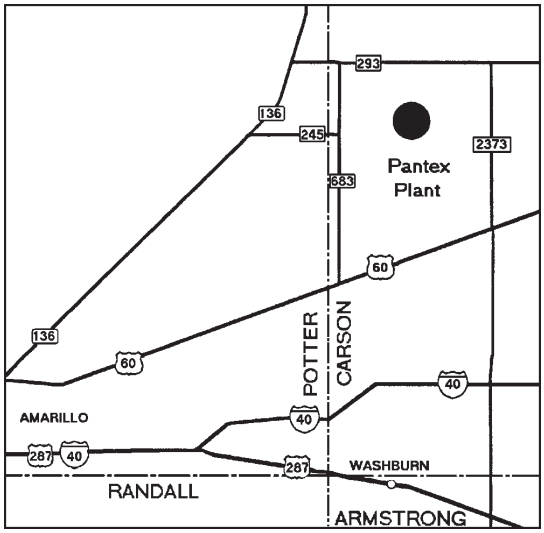
Pantex

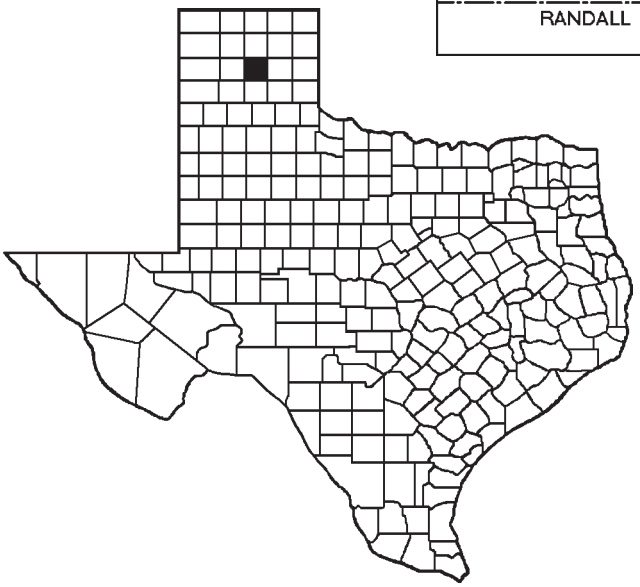
Radiation Branch Site No. 005

The Pantex plant site is located in Carson County in the Texas Panhandle, north of U.S. Highway 60. The plant is located 17 miles (27 kilometers) northeast of downtown Amarillo. It is centered on a 16,000-acre site. The Pantex facility consists of 10,080 acres of United States Department of Energy (USDOE) owned land and 5,856 acres of land leased from Texas Tech University, used as a safety and security buffer zone.

The Pantex plant is located on the Llano Estacado (staked plains) portion of the Great Plains at an elevation of approximately 3,500 feet (1,067 meters). The topography at Pantex plant is relatively flat, characterized by rolling grassy plains and numerous natural playa basins. The region is a semi-arid farming and ranching area. Pantex plant is surrounded by agricultural land, but several significant industrial facilities are also located nearby.

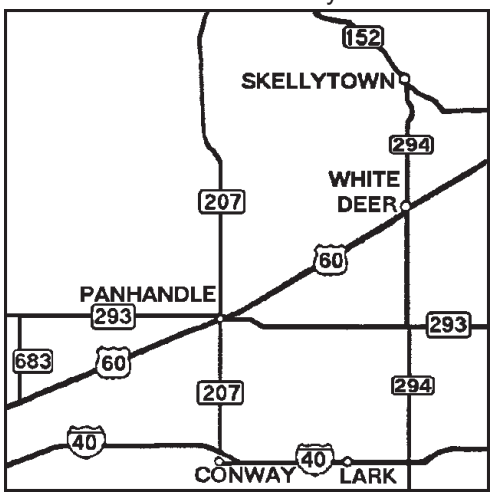
The Radiation Branch surveillance program consists of sampling air, food products, sediment, soil, vegetation, and water and TLD monitoring. Analysis of samples is concentrated on determining presence of any special nuclear material.





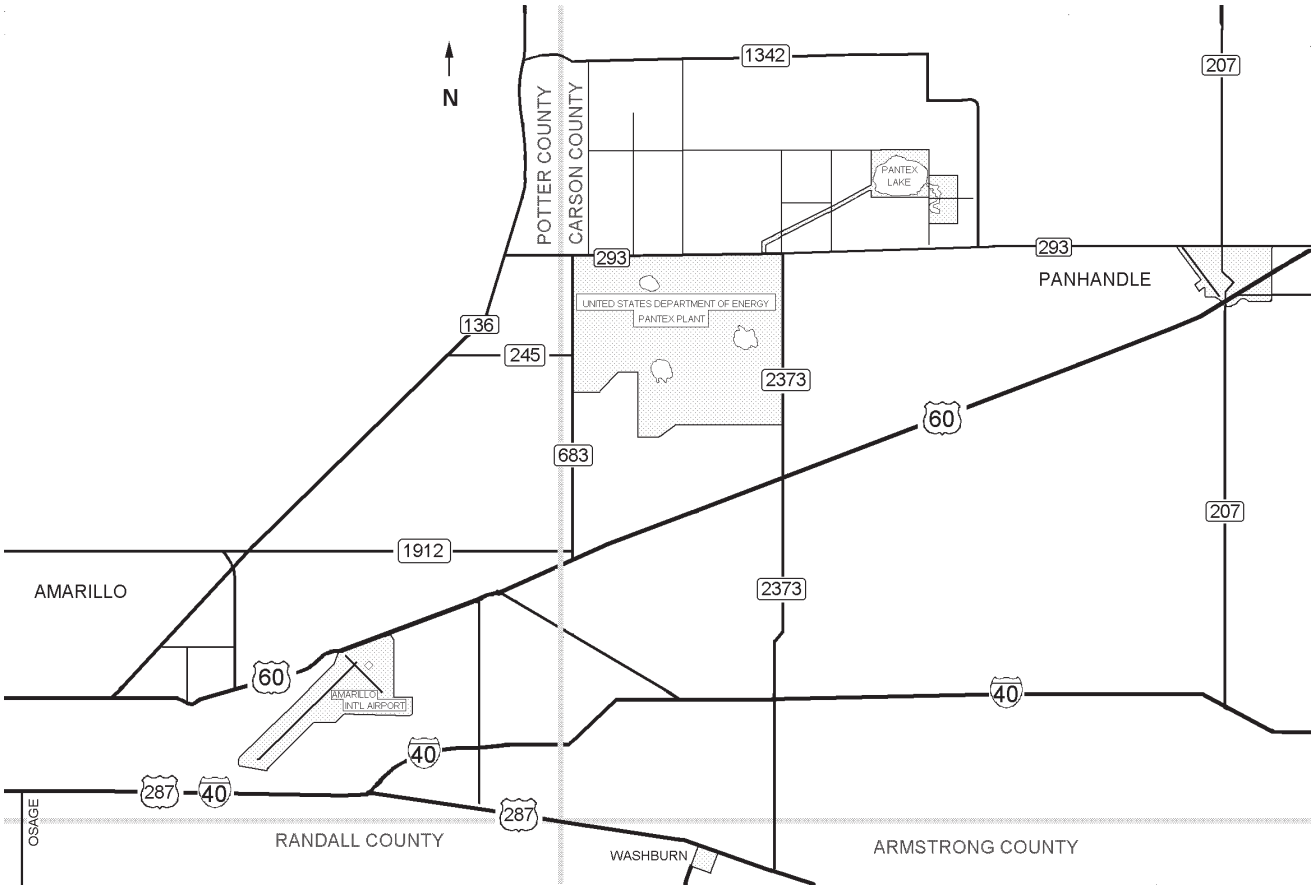
Shaded area indicates location of Carson County

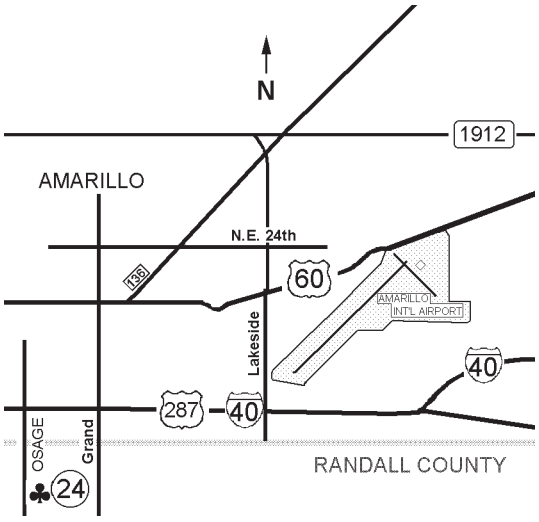
Carson County

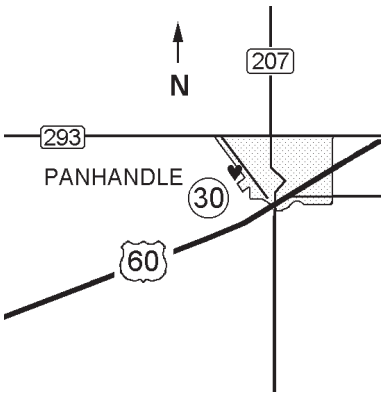


Monitoring Station Locations

♦ TLD Station ♥ Sample Station ♣ TLD & Sample Station







Homeland Security --
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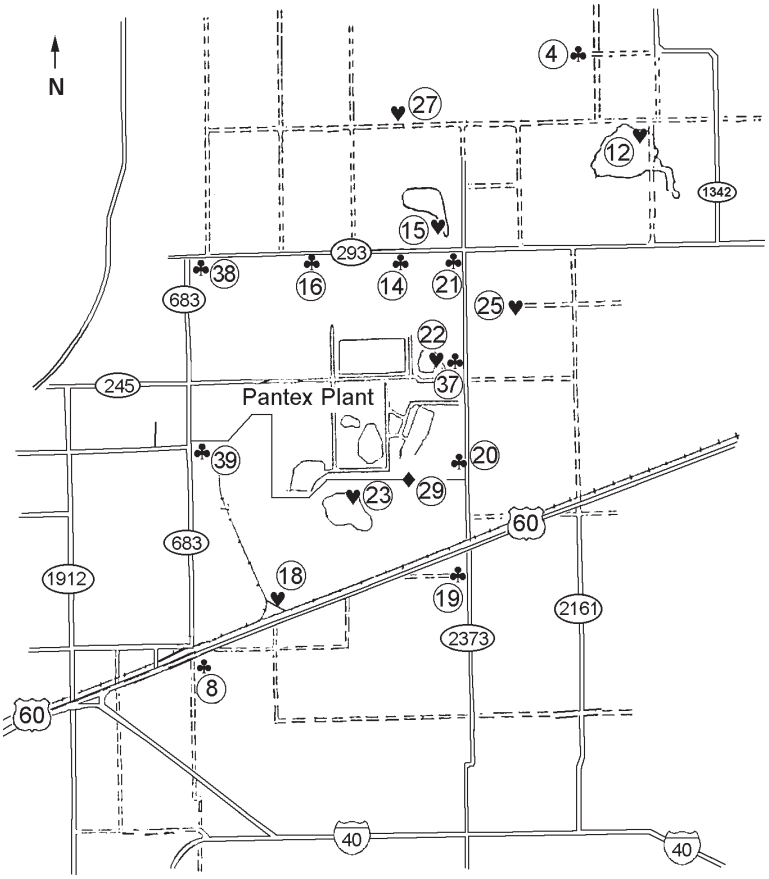


Thermoluminescent Dosimeter (TLD) Monitoring Results*
(quarterly and annual readings are in mrem)

Station	Q1	Q2	Q3	Q4	Annual Dose	Notes
04	34.3	23.0	24.3	24.5	106.1	
08	34.3	23.0	24.3	24.5	106.1	
14	34.3	23.0	24.3	25.4	107.0	
16	34.3	22.1	23.3	26.4	106.1	
19	34.3	20.2	23.3	24.5	102.3	
20	34.3	23.0	23.3	25.4	106.0	
21	32.8	23.0	22.2	25.4	103.4	
24	32.3	20.4	22.0	23.5	98.2	Background
29	35.8	23.2	26.0	26.4	111.4	
37	35.8	23.0	25.3	27.4	111.5	
38	31.3	22.1	21.2	24.5	99.1	
39	32.8	23.0	23.3	25.4	104.5	

NOTE: *Background is not subtracted from the data.

Environmental Sample Results

Date	Lab No.	Station	Pu-239*	U-234*	U-235*	U-238*	Ra-226
Air Samples µCi/ml							
2006-01-07	ER060135	104	<5E-17	<4.6E-16	<4.6E-16	5.3E-16	<1.5E-14
2006-01-29	ER060136	104	<5E-17	<4.5E-16	<4.5E-16	<4.5E-16	<9.2E-15
2006-02-10	ER060137	105	<5E-17	<4.7E-16	<4.7E-16	4.9E-16	<1.5E-14
2006-02-15	ER060138	105	<5E-17	<4.7E-16	<4.7E-16	<4.7E-16	<1.0E-14
2006-02-23	ER060160	104	<5E-17	<4.8E-16	<4.8E-16	<4.8E-16	<1.5E-14
2006-03-03	ER060161	104	<5E-17	<4.9E-16	<4.9E-16	<4.9E-16	<1.0E-14
2006-03-09	ER060162	105	<5E-17	<4.8E-16	<4.8E-16	5.1E-16	<1.6E-14
2006-03-28	ER060278	105	<5E-17	9.8E-16	<5.0E-16	<5.0E-16	<1.6E-14
2006-04-20	ER060277	105	<5E-17	9.6E-16	<4.5E-16	6.5E-16	<9.5E-15
2006-04-27	ER060309	105	<5E-17	<4.9E-16	<4.9E-16	<4.9E-16	<1.4E-14
2006-05-11	ER060310	104	<6E-17	<5.4E-16	<5.4E-16	<5.4E-16	<1.6E-14
2006-06-16	ER060405	105	<6E-17	<5.3E-16	<5.3E-16	<5.3E-16	<1.5E-14
2006-06-21	ER060404	105	<6E-17	<5.0E-16	<5.0E-16	<5.0E-16	<1.5E-14
2006-06-23	ER060403	105	<5E-17	<4.9E-16	<4.9E-16	<4.9E-16	<1.4E-14
2006-07-07	ER060448	105	<5E-17	<4.9E-16	<4.9E-16	<4.9E-16	<1.4E-14
2006-07-14	ER060447	105	<6E-17	<5.2E-16	<5.2E-16	<5.2E-16	<1.7E-14
2006-07-27	ER060446	105	<6E-17	5.0E-16	<5.0E-16	<5.0E-16	<1.5E-14
2006-08-31	ER060535	105	<6E-17	<5.3E-16	<5.3E-16	<5.3E-16	<2.1E-14
2006-09-28	ER060534	104	<6E-17	<5.1E-16	<5.1E-16	<5.1E-16	<1.6E-14
2006-11-01	ER060650	104	<5E-17	<4.6E-16	<4.6E-16	<4.6E-16	<1.4E-14
2006-11-09	ER060651	104	<5E-17	<4.8E-16	<4.8E-16	<4.8E-16	<1.5E-14
2006-11-17	ER060701	105	<5E-17	<4.8E-16	<4.8E-16	<4.8E-16	<4.9E-14
2006-11-29	ER060702	105	<5E-17	<4.1E-16	<4.1E-16	<4.1E-16	<8.0E-15
2006-12-08	ER060703	104	<5E-17	<4.5E-16	<4.5E-16	<4.5E-16	1.4E-14
2006-12-14	ER060704	104	<5E-17	<4.6E-16	<4.6E-16	<4.6E-16	<9.0E-15

Date	Lab No.	Station	Pu-239*	U-234*	U-235*	U-238*	H-3**	Ra-226	U-238
Food Product µCi/g									
2006-07-11	ER060399	25	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.1E-6	<9E-7
2006-10-09	ER060553	25	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.2E-6	<1.0E-6
Sediment µCi/g									
2006-02-01	ER060082	22	<1E-7	1.1E-6	<1.0E-6	1.1E-6	<1.0E-6	1.3E-6	<1.7E-6
2006-04-03	ER060195	12	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.3E-6	<1.3E-6
2006-07-10	ER060382	23	<1E-7	<1.0E-6	<1.0E-6	1.0E-6	--	<2.5E-6	<2.2E-6
2006-10-09	ER060561	15	<1E-7	<1.0E-6	<1.0E-6	<1.6E-6	--	<2.2E-6	<2.0E-6
Soil µCi/g									
2006-02-01	ER060076	14	<1E-7	<1.0E-6	<1.0E-6	1.0E-6	--	<2.4E-6	<1.5E-6
2006-02-01	ER060078	18	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	2.1E-6	<1.3E-6
2006-02-01	ER060080	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.4E-6	<2.1E-6
2006-02-01	ER060087	37	<1E-7	1.0E-6	<1.0E-6	1.0E-6	--	<2.3E-6	<2.1E-6
2006-02-01	ER060089	39	<1E-7	1.0E-6	<1.0E-6	1.1E-6	--	<2.5E-6	<2.1E-6
2006-04-03	ER060189	04	<1E-7	1.0E-6	<1.0E-6	<1.0E-6	--	1.5E-6	<1.6E-6
2006-04-03	ER060190	08	<1E-7	<1.0E-6	<1.0E-6	1.0E-6	--	<2.5E-6	<2.2E-6
2006-04-03	ER060191	16	<1E-7	<1.0E-6	<1.0E-6	<1.0E-7	--	<2.2E-6	<1.4E-6
2006-04-03	ER060192	19	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.2E-6	<2.0E-6
2006-04-03	ER060193	21	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.1E-6	<1.3E-6
2006-04-03	ER060194	38	<1E-7	1.0E-6	<1.0E-6	1.1E-6	--	<2.2E-6	<2.0E-6
2006-07-11	ER060376	14	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.5E-6	<1.5E-6
2006-07-11	ER060377	18	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.3E-6	<1.4E-6
2006-07-11	ER060378	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.4E-6	<2.1E-6
2006-07-11	ER060379	37	<1E-7	1.1E-6	<1.0E-6	1.1E-6	--	1.8E-6	<1.6E-6
2006-07-11	ER060380	39	<1E-7	1.1E-6	<1.0E-6	<1.0E-6	--	<2.5E-6	<1.6E-6
2006-10-09	ER060555	04	<1E-7	1.0E-6	<1.0E-6	1.0E-6	--	<2.5E-6	<2.2E-6
2006-10-09	ER060556	08	<1E-7	<1.0E-6	<1.0E-6	1.0E-6	--	<2.5E-6	<2.2E-6
2006-10-09	ER060557	16	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	2.1E-6	<1.6E-6
2006-10-09	ER060558	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.5E-6	<1.5E-6
2006-10-09	ER060559	21	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<2.2E-6	<1.4E-6
2006-10-09	ER060560	38	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	2.2E-6	<1.6E-6
Vegetation µCi/g									
2006-02-01	ER060077	14	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<1.1E-6	<7E-7
2006-02-01	ER060079	18	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<9E-7	<8E-7
2006-02-01	ER060081	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<1.0E-6	<7E-7
2006-02-01	ER060086	37	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<7E-7	<6E-7
2006-02-01	ER060088	39	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<1.0E-6	<9E-7
2006-04-03	ER060183	04	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	7E-7	<6E-7
2006-04-03	ER060184	08	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<9E-7	<6E-7
2006-04-03	ER060185	16	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<7E-7	<6E-7
2006-04-03	ER060186	19	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<7E-7
2006-04-03	ER060187	21	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<8E-7	<7E-7
2006-04-03	ER060188	38	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	--	<8E-7	<7E-7
2006-07-11	ER060396	14	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.1E-6	<7E-7
2006-07-11	ER060397	18	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<8E-7	<7E-7
2006-07-11	ER060398	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<7E-7	<5E-7
2006-07-11	ER060400	37	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.1E-6	<7E-7
2006-07-11	ER060401	39	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.4E-6	<1.2E-6
2006-10-09	ER060548	04	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.2E-6	<8E-7
2006-10-09	ER060549	08	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<8E-7	<7E-7
2006-10-09	ER060550	16	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<9E-7	<6E-7
2006-10-09	ER060551	20	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<9E-7
2006-10-09	ER060552	21	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<9E-7	<6E-7
2006-10-09	ER060554	38	<1E-7	<1.0E-6	<1.0E-6	<1.0E-6	<1.0E-6	<7E-7	<6E-7
Water-Drinking µCi/ml									
2006-02-01	ER060085	30	<1E-10	4.8E-9	<1.0E-9	2.1E-9	<1.0E-6	<5.2E-8	<3.6E-8
2006-04-03	ER060198	30	<1E-10	5.0E-9	<1.0E-9	2.4E-9	<1.0E-6	<4.9E-8	<4.5E-8
2006-07-10	ER060385	30	<1E-10	4.8E-9	<1.0E-9	2.2E-9	<1.0E-6	<4.8E-8	<4.5E-8
2006-10-10	ER060565	30	<1E-10	5.1E-9	<1.0E-9	2.2E-9	<1.0E-6	<4.7E-8	<4.2E-8

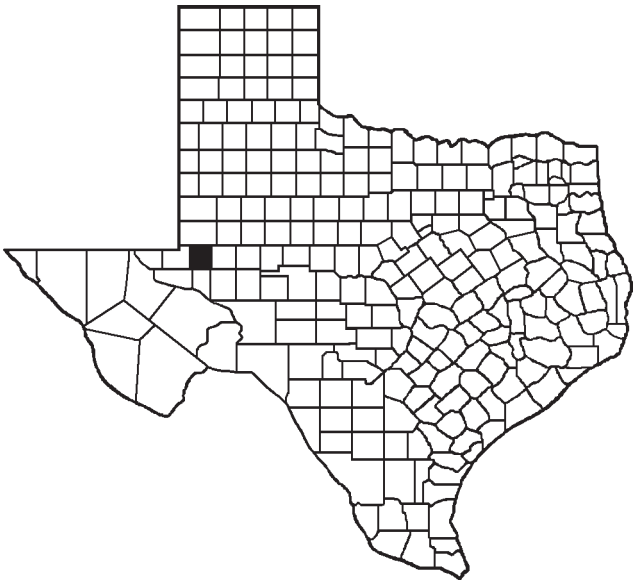
Date	*Lab No.*	*Station*	*Pu-239**	*U-234**	*U-235**	*U-238**	*H-3***	*Ra-226*	*U-238*
Water-Ground µCi/ml									
2006-01-31	ER060084	27	<1E-10	4.0E-9	<1.0E-9	1.6E-9	<1.0E-6	<5.0E-8	<4.7E-8
2006-04-03	ER060197	27	<1E-10	4.1E-9	<1.0E-9	1.6E-9	<1.0E-6	<5.2E-8	<3.7E-8
2006-07-10	ER060383	27	<1E-10	4.4E-9	<1.0E-9	1.8E-9	<1.0E-6	<5.2E-8	<3.6E-8
2006-10-09	ER060564	27	<1E-10	4.0E-9	<1.0E-9	2.0E-9	<1.0E-6	<5.2E-8	<3.6E-8
Water-Surface µCi/ml									
2006-01-31	ER060083	24	<1E-10	3.8E-9	<1.0E-9	2.3E-9	<1.0E-6	4.4E-8	<3.6E-8
2006-04-03	ER060196	24	<1E-10	4.0E-9	<1.0E-9	2.2E-9	<1.0E-6	<5.2E-8	<3.6E-8
2006-07-10	ER060381	23	<1E-10	<1.0E-9	<1.0E-9	<1.0E-9	<1.0E-6	<4.7E-8	<4.5E-8
2006-07-10	ER060384	24	<1E-10	4.0E-9	<1.0E-9	2.0E-9	<1.0E-6	<4.8E-8	<4.5E-8
2006-10-09	ER060562	15	<1E-10	<1.0E-9	<1.0E-9	<1.0E-9	<1.0E-6	<5.2E-8	<3.6E-8
2006-10-09	ER060563	24	<1E-10	4.1E-9	<1.0E-9	2.2E-9	<1.0E-6	<4.7E-8	<4.2E-8

NOTE: *Indicates the analysis was by alpha spectrometry, or if Ra-226, analysis by radon emanation.
**Indicates the tritium (H-3) analysis for food product, sediment, and vegetation is reported in µCi/ml.

Radiation Technology, Inc.

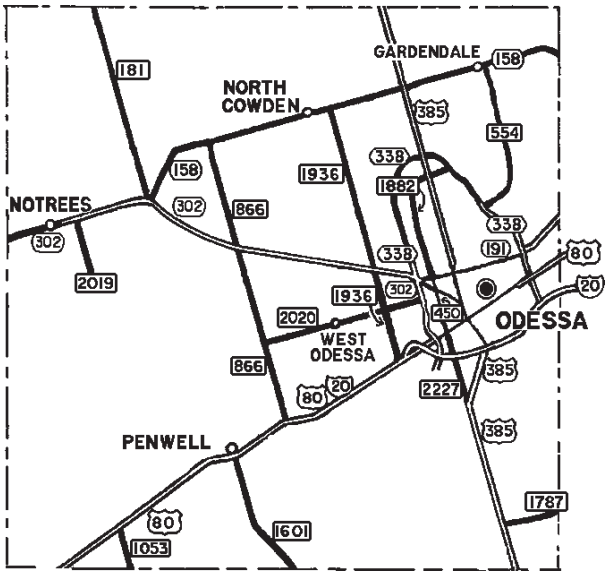
Radiation Branch Site No. 050

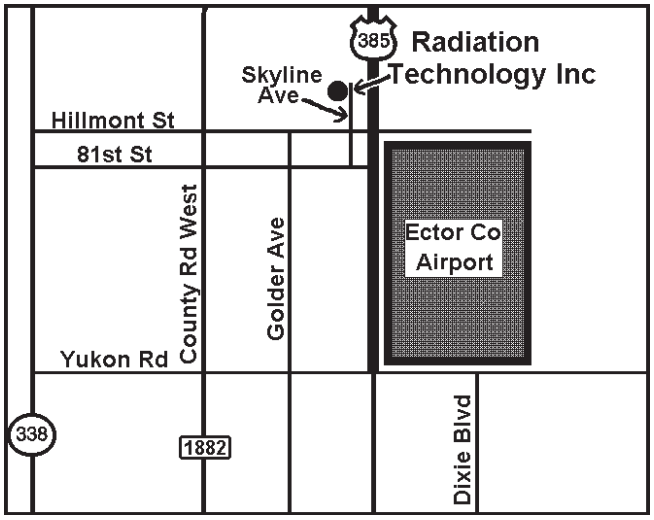
Radiation Technology, Inc. (RTI), located six miles north of downtown Odessa, provides installation, repair, and maintenance of nuclear gauging devices and services for loading and unloading radioactive sources in nuclear gauges. The Radiation Branch surveillance program consists of TLD monitoring.



Shaded area indicates location of Ector County

Ector County

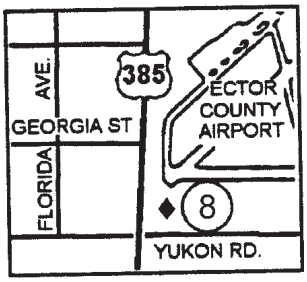




Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security -- Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results[1]
(quarterly and annual readings are in mrem)

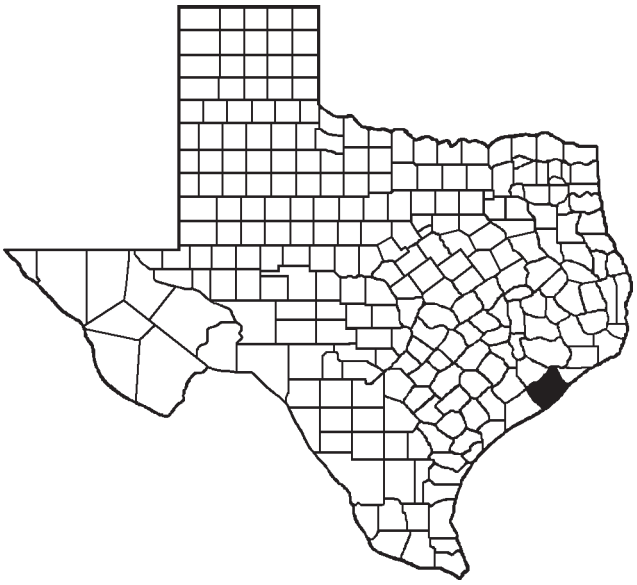
Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual[2] Dose*	*Notes*
01	53.5	79.9	154.2	163.0	450.6	
02	1478.5	1104.1	1062.0	998.2	4642.8	
03	249.4	257.8	648.8	613.3	1769.3	Q2-photon & beta evaluation only
04	124.2	132.5	128.5	126.1	511.3	
08	7.5	8.1	2.1	2.8	20.5	Background TLD provided by Landauer, Inc.

NOTE: [1]Combined neutron/gamma dosimeters are deployed at this facility. Exposure reported includes neutron and gamma doses.
[2]Occupancy factors not provided. Occupancy factors have been requested from licensee.

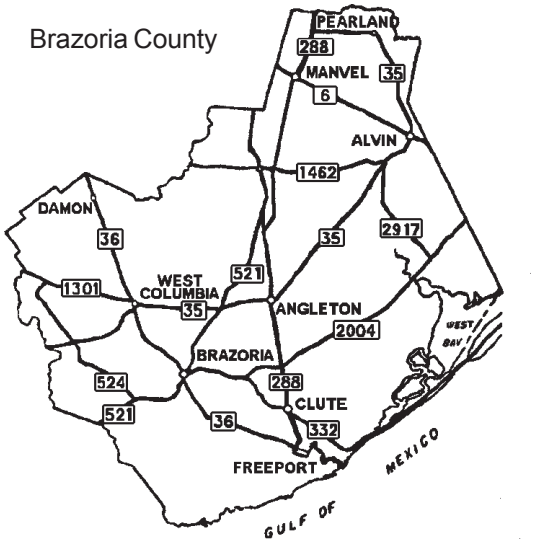
Rhodia, Inc.

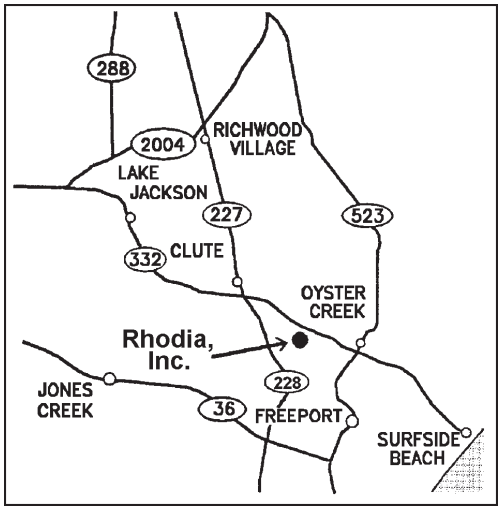
Radiation Branch Site No. 026

Rhodia, Inc. is an international specialty chemicals manufacturer. Rhodia's Freeport facility, located approximately 55 miles south of Houston, uses material containing uranium and thorium. The Radiation Branch surveillance program consists of TLD monitoring.



Shaded area indicates location of Brazoria County





Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security --
Diagram Removed

Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

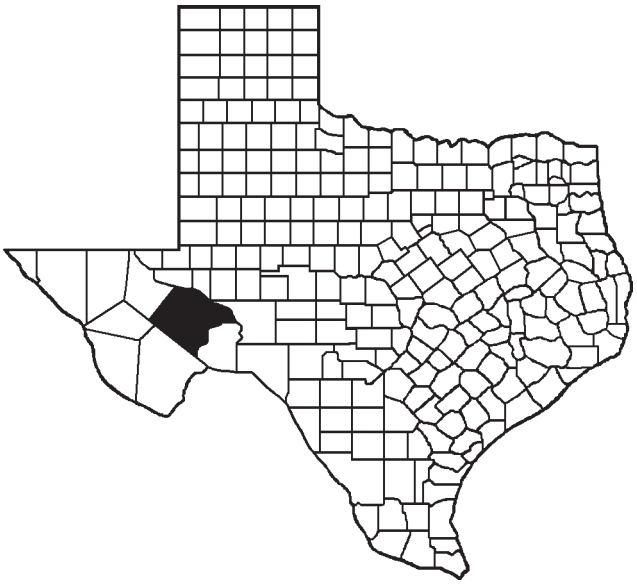
Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual* Dose*	*Notes*
01	0.0	0.0	0.0	0.0	0.0	
02	0.0	0.0	0.0	0.0	0.0	
04	6.5	5.6	5.0	7.0	24.1	
05	32.5	29.7	29.0	31.0	122.2	
06	26.0	26.0	25.0	25.0	102.0	
16	18.4	13.9	15.0	17.0	64.3	Background

Note: *Value does not include 1/16 occupancy factor.

U. T. Systems Interim Waste Storage Facility

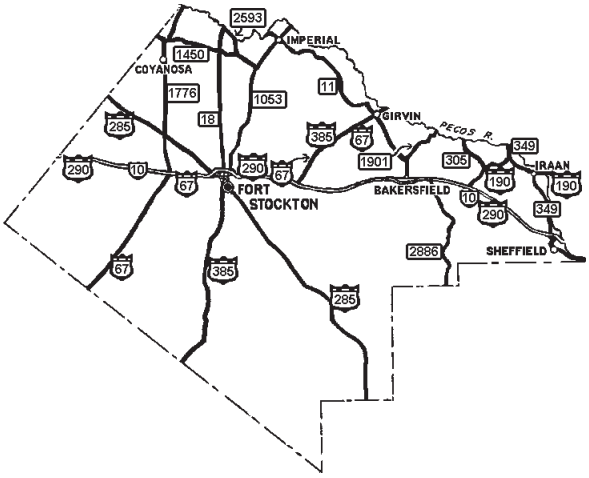
Radiation Branch Site No. 042

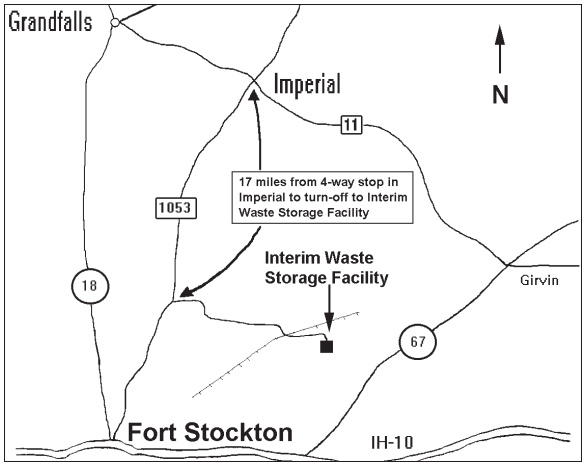
University of Texas Systems Interim Waste Storage Facility, located in Pecos County, provides temporary storage for low-level radioactive waste from several U.T. campuses throughout Texas. The Radiation Branch surveillance program consists of TLD monitoring.



Shaded area indicates location of Pecos County

Pecos County

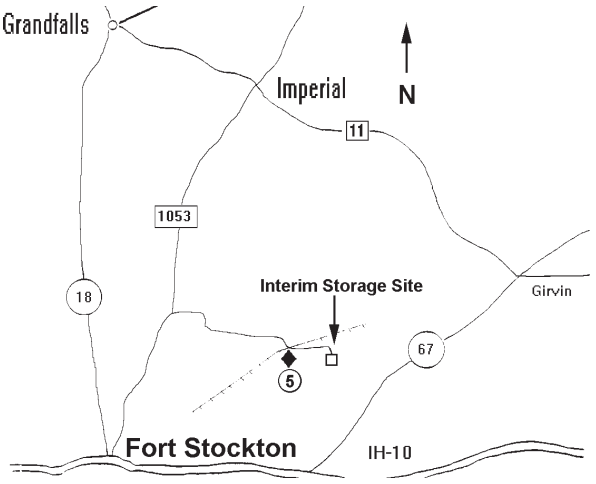




Monitoring Station Locations

♦ TLD Station	♥ Sample Station	♣ TLD & Sample Station

Homeland Security -- Diagram Removed



Thermoluminescent Dosimeter (TLD) Monitoring Results
(quarterly and annual readings are in mrem)

Station	*Q1*	*Q2*	*Q3*	*Q4*	*Annual[1] Dose*	*Note*
01	2.1	1.0	--	0.9	5.3	[2]Q3-TLD missing
02	0.0	0.0	0.0	0.0	0.0	
03	0.0	0.0	0.0	0.0	0.0	
04	0.0	0.0	0.0	0.0	0.0	
05	24.1	21.0	20.1	22.3	87.5	Background

NOTE: [1]Occupancy factors not provided.
[2]If data are missing during a quarter, an average of known quarter readings for that year and location is used to fill in for the missing data.

Appendices

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QAP 0403

QAP 60 Results by Laboratory

Lab: TX Texas Dept. of Health/Laboratories, Austin

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation
Matrix: AI Air Filter Bq/filter							
1	AM241	0.115	0.01	0.1045	0.0025	1.100	A
1	CO60	37.5	0.4	35.4	0.85	1.059	A
1	CS134	16.7	0.2	18.2	0.402	0.918	A
1	CS137	28.9	0.5	26.4	0.86	1.095	A
1	Gross Alpha	1.19	0.08	1.2	0.12	0.992	A
1	Gross Beta	2.89	0.13	2.85	0.28	1.014	A
1	PU238	0.041	0.002	0.0405	0.0027	1.012	A
1	PU239	0.164	0.005	0.1644	0.0112	0.998	A
1	U234	0.092	0.005	0.0858	0.0008	1.072	A
1	U238	0.09	0.005	0.085	0.0029	1.059	A
Matrix: SO Soil Bq/kg							
1	AC228	52.4	1.8	49.0	1.96	1.069	A
1	AM241	13.9	0.9	13.0	0.43	1.069	A
1	BI212	51.2	8.2	50.43	4.61	1.015	A
1	BI214	52.3	1.9	58.4	2.2	0.896	A
1	CS137	1359.0	30.0	1323.0	66.17	1.027	A
1	K40	564.0	17.0	539.0	29.11	1.046	A
1	PB212	50.1	1.9	47.73	2.53	1.050	A
1	PB214	55.6	2.0	61.0	2.38	0.911	A
1	PU238	0.888	0.185	0.82	0.05	1.083	A
1	PU239	22.4	1.2	22.82	0.56	0.982	A
1	SR90	52.5	9.4	51.0 *	5.9	1.029	A
1	TH234	71.1	8.9	84.0	5.96	0.846	A
1	U234	84.6	2.7	87.22	1.97	0.970	A
1	U238	90.6	2.7	89.73	4.22	1.010	A
Matrix: VE Vegetation Bq/kg							
1	AM241	5.33	0.56	4.93	0.29	1.081	A
1	CO60	17.7	0.9	14.47	0.64	1.223	A
1	CS137	659.0	11.0	584.67	29.23	1.127	A
1	K40	837.0	25.0	720.0	37.92	1.163	A
1	PU238	0.592	0.159	0.455	0.0485	1.301	A
1	PU239	6.56	0.53	6.81	0.28	0.963	A
1	SR90	688.0	22.0	734.0 *	82.0	0.937	A
Matrix: WA Water Bq/L							
1	AM241	1.22	0.11	1.31	0.04	0.931	A
1	CO60	162.0	1.0	163.2	5.9	0.993	A
1	CS137	52.2	0.9	51.95	2.7	1.005	A
1	Gross Alpha	320.0	28.0	326.0	32.0	0.982	A
1	Gross Beta	1217.0	60.0	1170.0	117.0	1.040	A
1	H3	255.0	18.0	186.6	3.3	1.367	W
1	PU238	1.03	0.06	1.1	0.03	0.936	A
1	PU239	2.86	0.14	3.08	0.1	0.929	A
1	SR90	5.68	0.67	4.76 *	0.5	1.193	W
1	U234	2.26	0.09	2.28	0.02	0.991	A
1	U238	2.25	0.09	2.25	0.06	1.000	A

Values for elemental uranium are reported in µg/filter, g, or mL. **pCi/g or mL = Bq x 0.027**

Evaluation: A=Acceptable, W=Acceptable with Warning, N=Not Acceptable

If the evaluation system is not appropriate for the types of analyses performed in your lab, apply site specific evaluation.

* Grand mean average used in lieu of experimentally determined EML value

Department of Homeland Security
Environmental Measurements Laboratory
201 Varick Street
New York, NY 10014-7447

March 1, 2004

To: Participants in Quality Assessment Program (QAP)
From: Mitchell D. Erickson, Laboratory Director

TERMINATION OF THE QUALITY ASSESSMENT PROGRAM

The Department of Energy's (DOE) Quality Assessment Program (QAP), managed by the Environmental Measurements Laboratory (EML), will be terminated after we issue the report for this current performance sample distribution (QAP 60).

The Program was established in 1976 to test the quality of the environmental radiological analysis being reported to DOE by its contractors for site cleanup and regulatory compliance. Since the Program's inception, DOE/EML successfully prepared, analyzed, and distributed thousands of performance samples to DOE contractors and other participants in the program. DOE/EML then collected, compiled, assessed, and reported the resulting analytical data, which was used by DOE program managers to select qualified contractors, monitor contractors' performance, and assure data quality. QAP data show continuous improvement in radiochemical analyses as labs gained proficiency and EML's QA scientists encouraged better performance through consultation, feedback, and new methods. Detailed information on QAP, including full reports, is available at http://www.eml.doe.gov/qap/.

EML is proud to have successfully managed the Program for 27 years on behalf of DOE; helping the Nation by ensuring that the quality of the radiological analysis from DOE contractors was demonstrated. We would also like to take this opportunity to thank all those individuals and organizations that have helped and supported us over the years.

EML transferred to the Science and Technology (S&T) Directorate of the Department of Homeland Security (DHS) on March 1, 2003. As we continue to respond to the challenges of our new mission, we need to redirect our proficiency testing (PT) activities to reflect our new mission. We will keep you informed as these new PT activities develop.

Laboratory Services Section
Environmental Sciences Branch

Each laboratory procedure is performed under unique analysis conditions. Variations occur in volumes, counting efficiencies, detector backgrounds, count times, decay factors, chemical recoveries, and other analysis parameters which affect the sensitivity of the measurement. The detection limits listed in the following tables were derived using standard analysis conditions and are routinely achievable on normal samples. If greater sensitivity is required, it is usually possible to adjust detection limits by changing one or more of these parameters.

Detection Limits for Gamma Spectroscopy
Sample Type

Isotope	Soil - Sediment		Air Filter		Water - Milk		Vegetation - Fish	
	µCi/g	pCi/kg	µCi/filter	pCi/filter	µCi/ml	pCi/l	µCi/g	pCi/kg
Ac-228	2.0E-07	2.0E+02	2.0E-05	2.0E+01	2.0E-08	2.0E+01	1.0E-07	1.0E+02
Ag-110m	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Am-241	1.0E-07	1.0E+02	5.0E-06	5.0E+00	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Ba-140	4.0E-07	4.0E+02	2.0E-05	2.0E+01	2.0E-08	2.0E+01	1.0E-07	1.0E+02
Be-7	1.0E-06	1.0E+03	3.0E-05	3.0E+01	3.0E-08	3.0E+01	1.0E-07	1.0E+02
Bi-212	5.0E-07	5.0E+02	3.0E-05	3.0E+01	1.0E-07	1.0E+02	1.0E-07	1.0E+02
Bi-214	2.0E-07	2.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Co-57	1.0E-07	1.0E+02	2.0E-06	2.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Co-58	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Co-60	1.0E-07	1.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Cr-51	1.0E-06	1.0E+03	3.0E-05	3.0E+01	3.0E-08	3.0E+01	1.0E-07	1.0E+02
Cs-134	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Cs-137	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Fe-59	1.0E-07	1.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02
I-125	1.0E-06	1.0E+03	1.0E-05	1.0E+01	2.0E-08	2.0E+01	1.0E-07	1.0E+02
I-131*	1.0E-07	1.0E+02	5.0E-06	5.0E+00	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Ir-192	1.0E-07	1.0E+02	5.0E-06	5.0E+00	1.0E-08	1.0E+01	1.0E-07	1.0E+02
K-40	2.0E-06	2.0E+03	1.0E-04	1.0E+02	4.0E-08	4.0E+01	1.0E-07	1.0E+02
La-140	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Mn-54	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Nb-95	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Pb-210	4.0E-07	4.0E+02	2.0E-05	2.0E+01	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Pb-212	2.0E-07	2.0E+02	1.0E-05	1.0E+01	3.0E-08	3.0E+01	1.0E-07	1.0E+02
Pb-214	2.0E-07	2.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Ra-226	2.0E-06	2.0E+03	1.0E-04	1.0E+02	1.0E-07	1.0E+02	2.0E-07	2.0E+02
Sb-124	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Sc-46	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
Th-230	1.0E-05	1.0E+04	3.0E-04	3.0E+02	1.0E-06	1.0E+03	2.0E-06	2.0E+03
Th-234	1.0E-06	1.0E+03	4.0E-05	4.0E+01	1.0E-07	1.0E+02	2.0E-07	2.0E+02
Tl-208	1.0E-07	1.0E+02	5.0E-06	5.0E+00	5.0E-09	5.0E+00	1.0E-07	1.0E+02
U-235	4.0E-07	4.0E+02	2.0E-05	2.0E+01	3.0E-08	3.0E+01	1.0E-07	1.0E+02
U-238	1.0E-06	1.0E+03	3.0E-05	3.0E+01	6.0E-08	6.0E+01	2.0E-07	2.0E+02
Zn-65	2.0E-07	2.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02
Zr-95	1.0E-07	1.0E+02	1.0E-05	1.0E+01	1.0E-08	1.0E+01	1.0E-07	1.0E+02

*Air iodine can be determined by using cartridges. Detection limits are 2.0E-14µCi/ml or 2.0E-02 pCi/m^3.

Laboratory Services Section
Environmental Sciences Branch

Detection Limits for Chemical Analysis Procedures
Sample Type

Isotope	Soil - Sediment		Air Filter		Water - Milk		Vegetation - Fish	
	µCi/g	pCi/kg	µCi/filter	pCi/filter	µCi/ml	pCi/l	µCi/g	pCi/kg
Alpha	6.1E-06	6.1E+03	7.0E-07	7.0E-01	3.3E-09	3.3E+00	3.3E-06	3.3E+03
Beta	1.2E-05	1.2E+04	1.3E-06	1.3E+00	6.6E-09	6.6E+00	6.6E-06	6.6E+03
C-14					3.0E-07	3.0E+02		
H-3			2.0E-06	2.0E+00	1.0E-06	1.0E+03		
Ra-226	4.0E-07	4.0E+02	8.0E-07	8.0E-01	8.0E-10	8.0E-01	4.0E-07	4.0E+02
Ra-228	1.9E-06	1.9E+03	3.9E-06	3.9E+00	3.9E-09	3.9E+00	1.9E-06	1.9E+03
Sr-89	9.0E-07	9.0E+02	1.7E-06	1.7E+00	1.7E-09	1.7E+00	9.0E-07	9.0E+02
Sr-90	1.3E-06	1.3E+03	2.7E-06	2.7E+00	2.7E-09	2.7E+00	1.3E-06	1.3E+03

Detection Limits for Alpha Spectroscopy
Sample Type

Isotope	Soil - Sediment		Air Filter		Water - Milk		Vegetation - Fish	
	µCi/g	pCi/kg	µCi/filter	pCi/filter	µCi/ml	pCi/l	µCi/g	pCi/kg
Am-241	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03
Pu-239	2.0E-07	2.0E+02	2.0E-07	2.0E-01	2.0E-10	2.0E-01	2.0E-07	2.0E+02
Th-228	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03
Th-230	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03
Th-232	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03
U-234	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03
U-238	1.0E-06	1.0E+03	1.0E-06	1.0E+00	1.0E-09	1.0E+00	1.0E-06	1.0E+03

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