Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
FHWA/TX-93/1283-2F		

4. Title and Subtitle	5. Report Date
CLOSURE OF THE GIWW AND ITS IMPACT ON THE TEXAS HIGHWAY TRANSPORTATION SYSTEM: FINAL REPORT - VOLUME II	September 1993
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Stephen S. Roop, Daryl U. Wang, Richard W. Dickinson, and Gordon M. Clarke	Research Report 1283-2F, Volume II

9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135	11. Contract or Grant No. Study No. 0-1283

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Texas Department of Transportation Research and Technology Transfer Office P. O. Box 5080 Austin, Texas 78763-5080	Final: September 91 - August 93
	14. Sponsoring Agency Code

15. Supplementary Notes

Research performed in cooperation with the Texas Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration.
Research Study Title: Closure of the GIWW and Its Impact on the Texas Highway Transportation System

16. Abstract

This report was developed for use by TxDOT in planning efforts to reduce the degree of impact on the Texas highways in the event of a closure to the Texas Gulf Intracoastal Waterway. With the provision of up-to-date GIWW commodities and roadway conditions, the methodologies developed in this report can predict the expected tonnage to be shifted to the highway system and its associated detrimental effects.

17. Key Words	18. Distribution Statement
Modal Shift, Waterborne, Roadway Impact, Freight, Impact	No restrictions. This document is available to the public through NTIS: National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161

19. Security Classif.(of this report)	20. Security Classif.(of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	226	

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

CLOSURE OF THE GIWW AND ITS IMPACT ON THE TEXAS HIGHWAY TRANSPORTATION SYSTEM: FINAL REPORT - VOLUME II

by

Stephen S. Roop
Associate Research Scientist

Daryl U. Wang
Engineering Research Associate

Richard W. Dickinson
Assistant Research Scientist

and

Gordon M. Clarke
Research Assistant

Research Report 1283-2F
Research Study Number 0-1283
Study Title: Closure of the GIWW and Its Impact on the Texas Highway Transportation System: Final Report - Volume II

Sponsored by the
Texas Department of Transportation
In Cooperation with the
U.S. Department of Transportation
Federal Highway Administration

TEXAS TRANSPORTATION INSTITUTE
The Texas A&M University System
College Station, TX 77843-3135

September 1993

IMPLEMENTATION

The information developed, analyzed, and presented herein can be used by TxDOT in planning efforts to reduce the degree of impact on the Texas highways in the event of a closure to the Texas Gulf Intracoastal Waterway. With the provision of up-to-date GIWW commodities and roadway conditions, the methodologies developed in this report can predict the expected tonnage to be shifted to the highway system and its associated detrimental effects. When one considers the magnitude of these effects, the usefulness of this study becomes clear.

DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration or the Texas Department of Transportation. This report does not constitute a standard, specification, or regulation.

ACKNOWLEDGMENT

The authors of this report would like to express their appreciation to TxDOT and the U.S. Department of Transportation, Federal Highway Administration for their ongoing support throughout the duration of this study. A special thanks goes to Tom Scullion of TTI and Susan Hassett of the Waterborne Commerce Statistics Center for their respective expert advice on pavement characteristics and GIWW commodity flow.

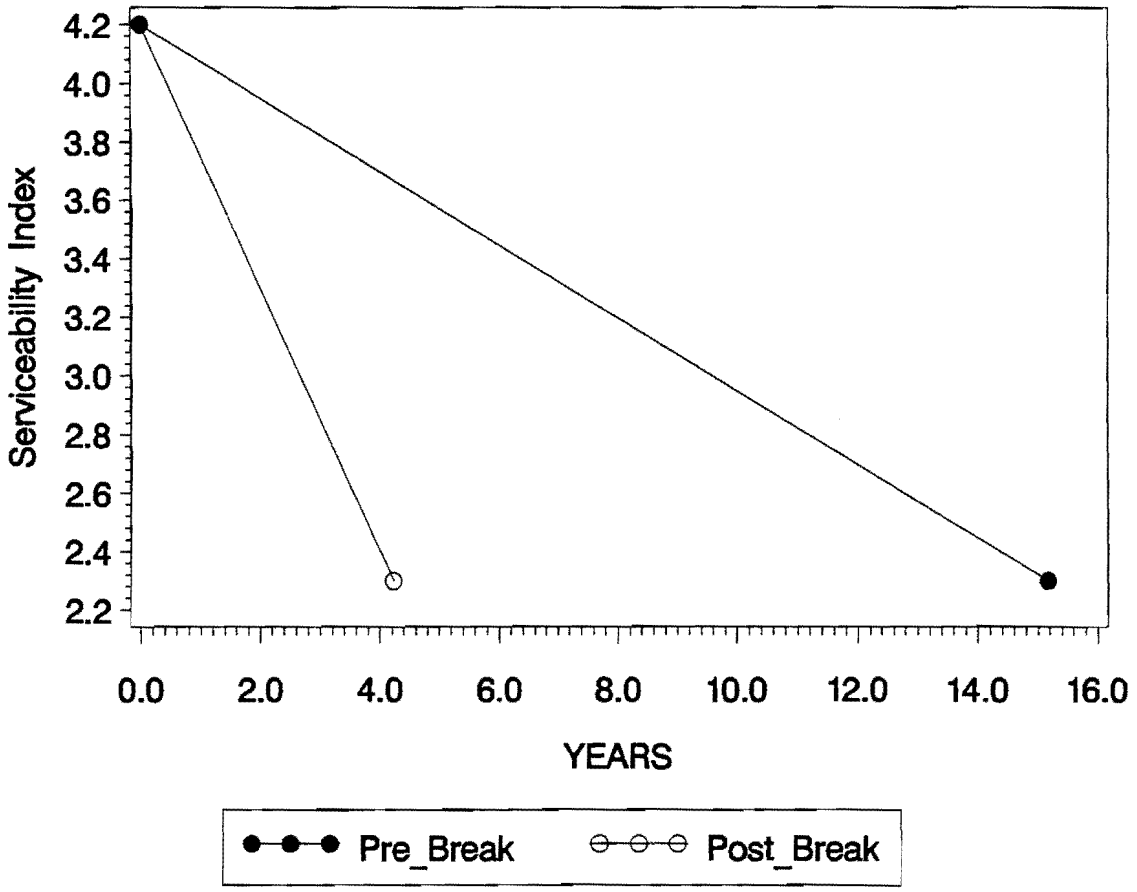
TABLE OF CONTENTS

APPENDIX D

West Galveston Bay Break Range (360-380)

PAVEMENT LIFETIME

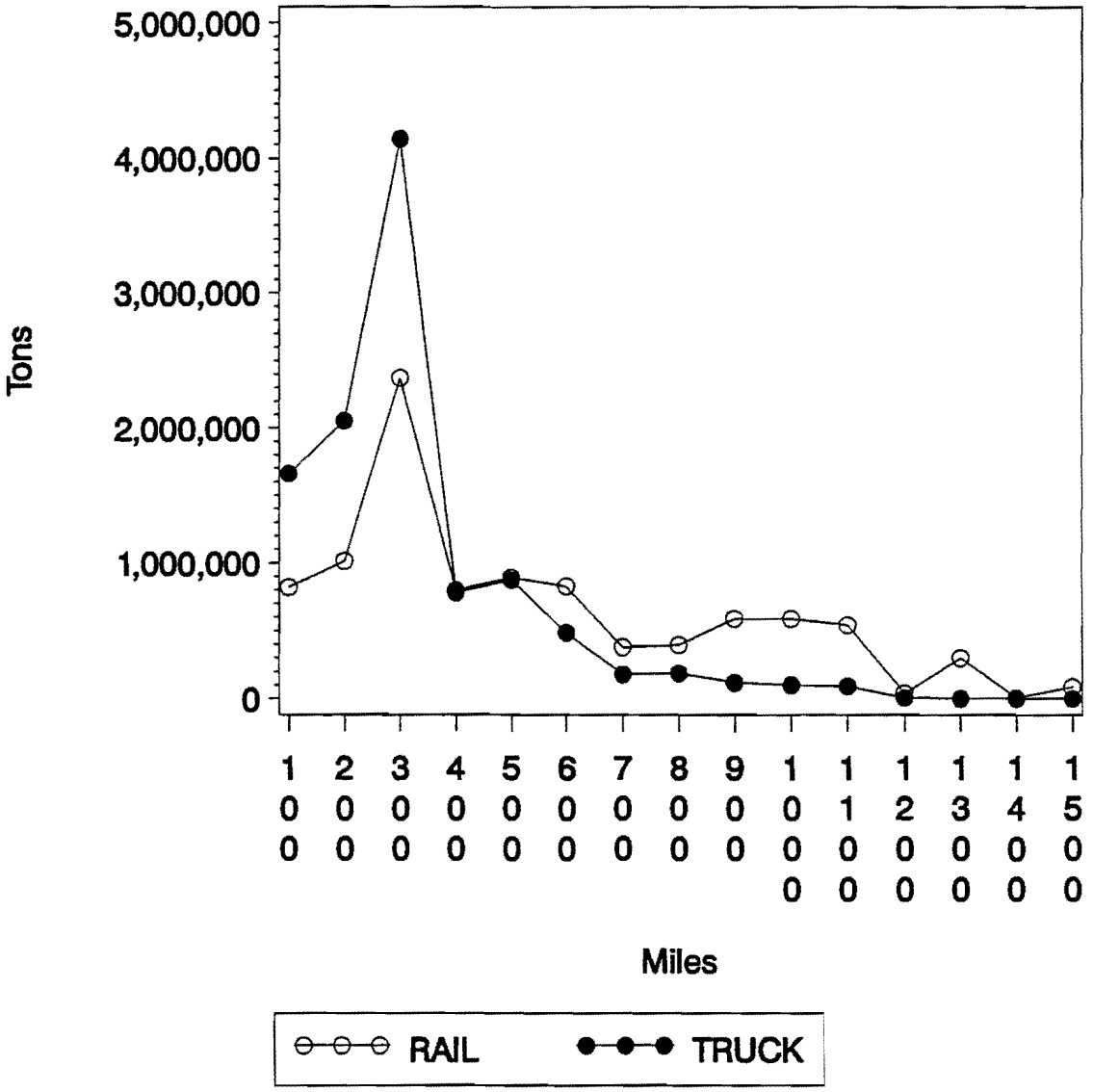
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 360 – 380 / West Galveston Bay
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

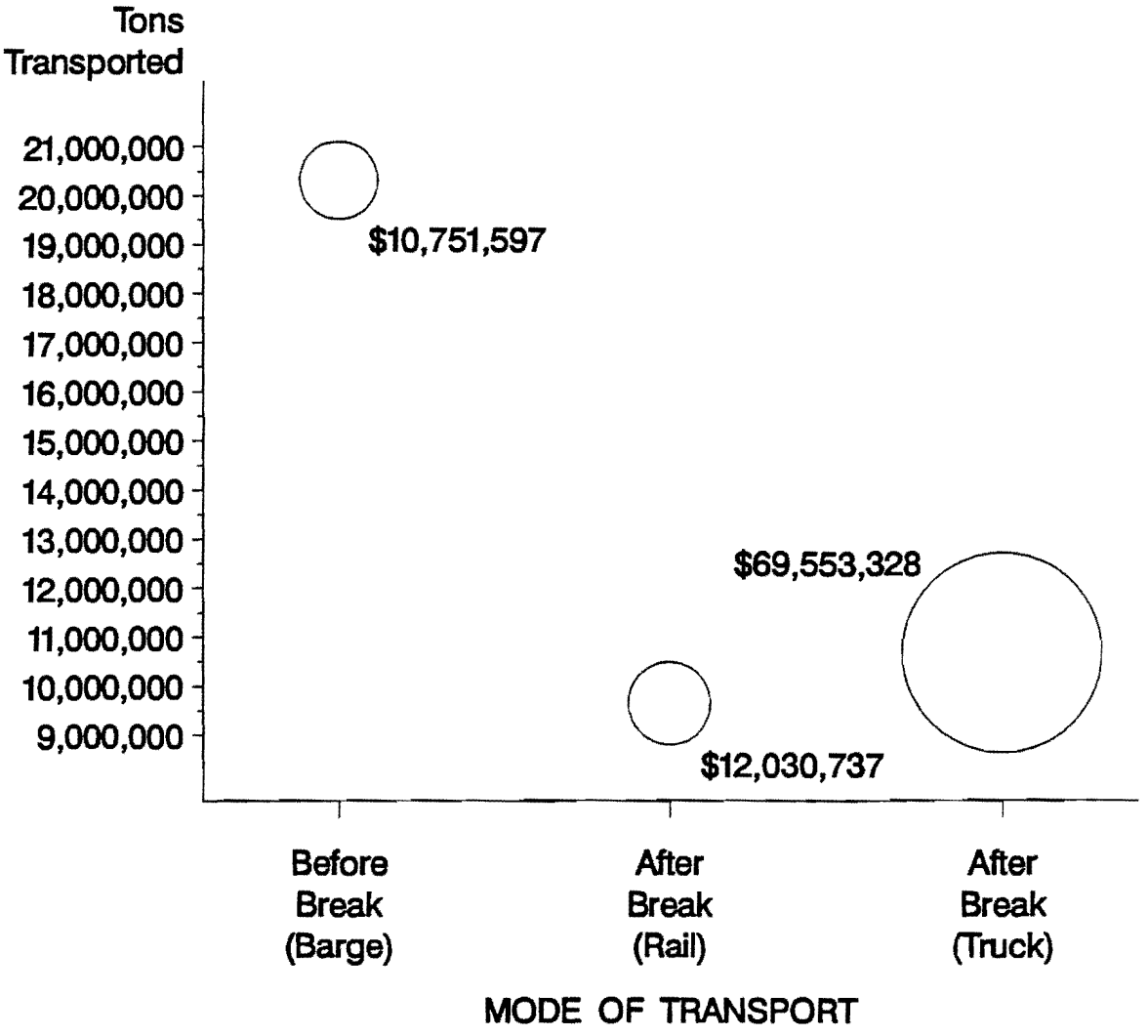
AS A FUNCTION OF DISTANCE

BREAK POINT 360 – 380 / West Galveston Bay



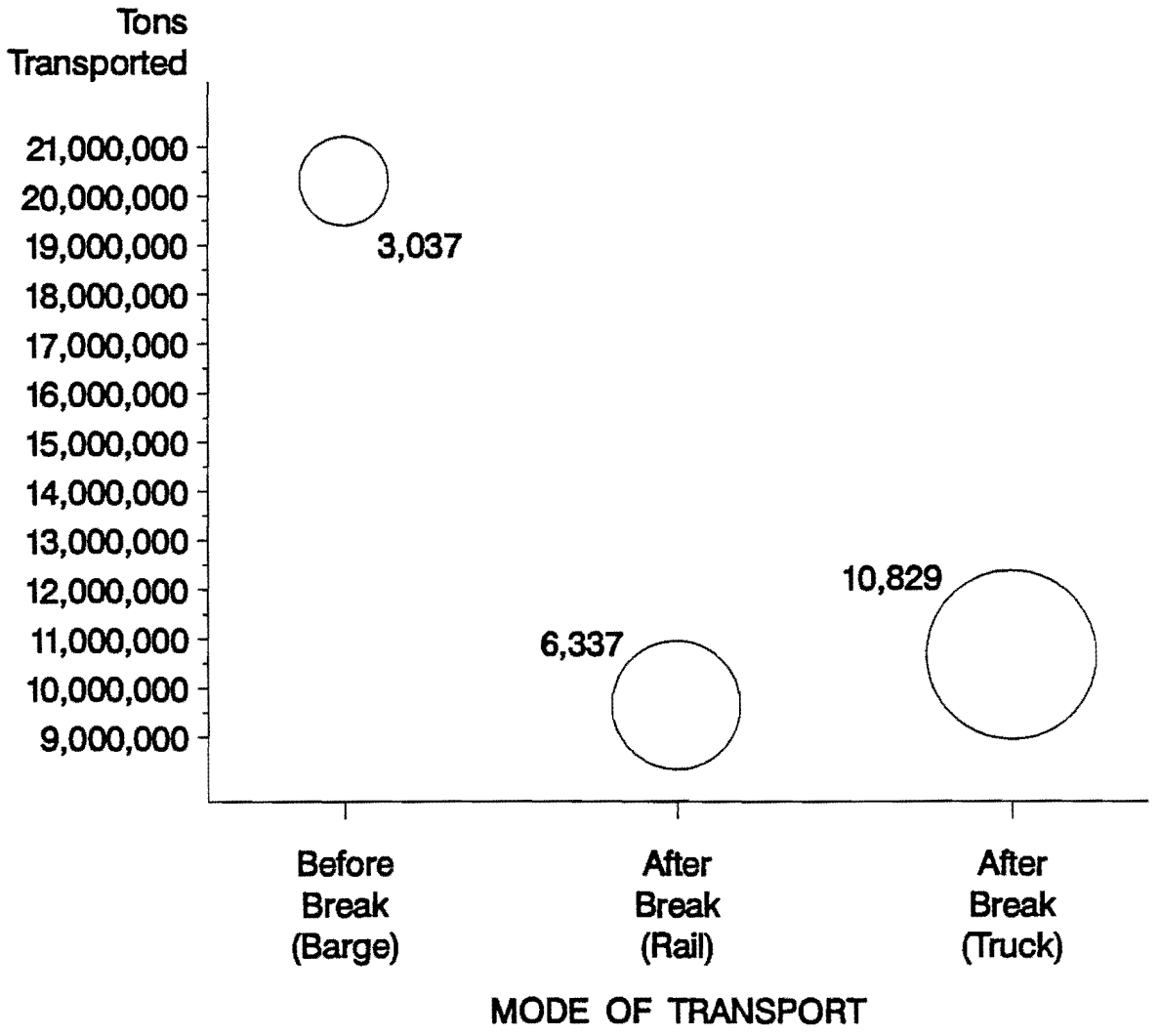
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON-MILES EFFICIENCY
BREAK POINT 360-380 / West Galveston Bay



EMISSIONS (Tons)

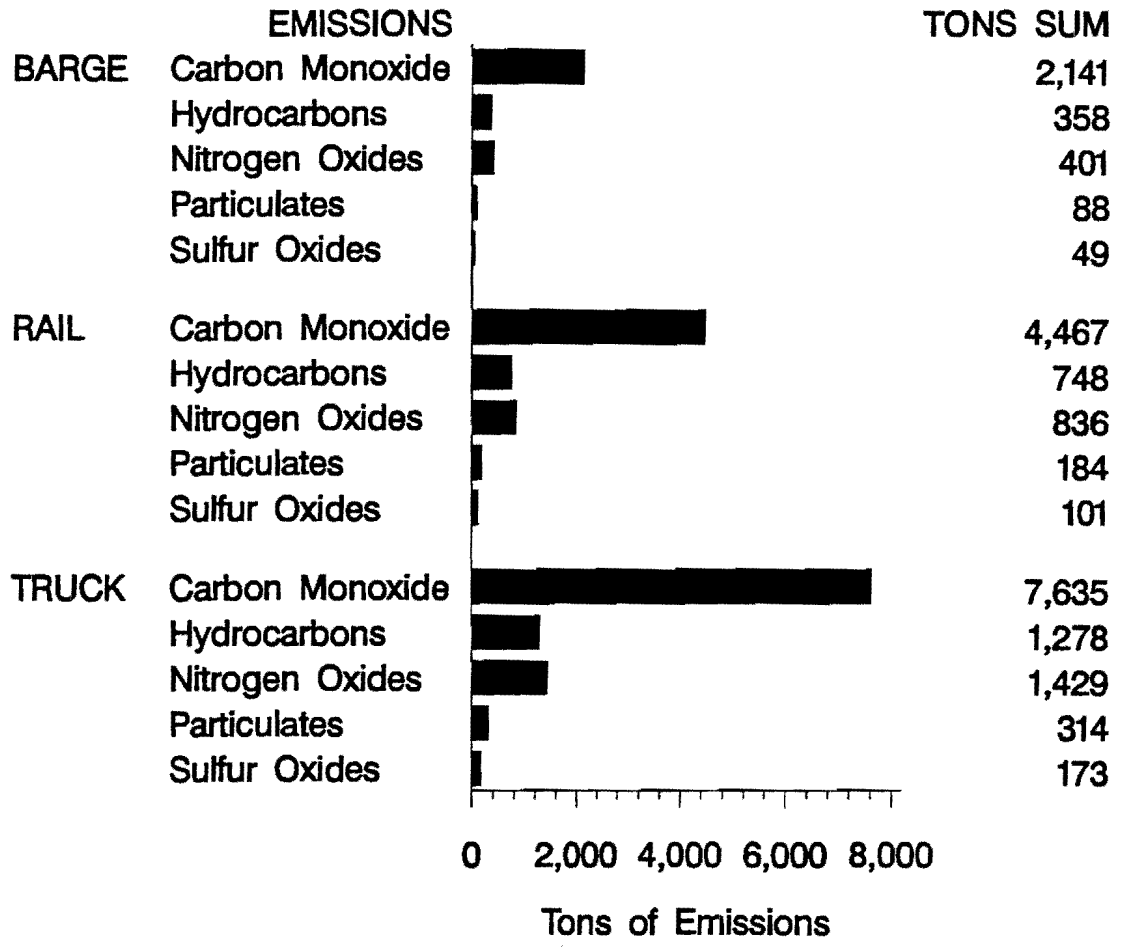
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 360–380 / West Galveston Bay



EMISSIONS (Tons)

LOW END OF TON–MILE EFFICIENCY

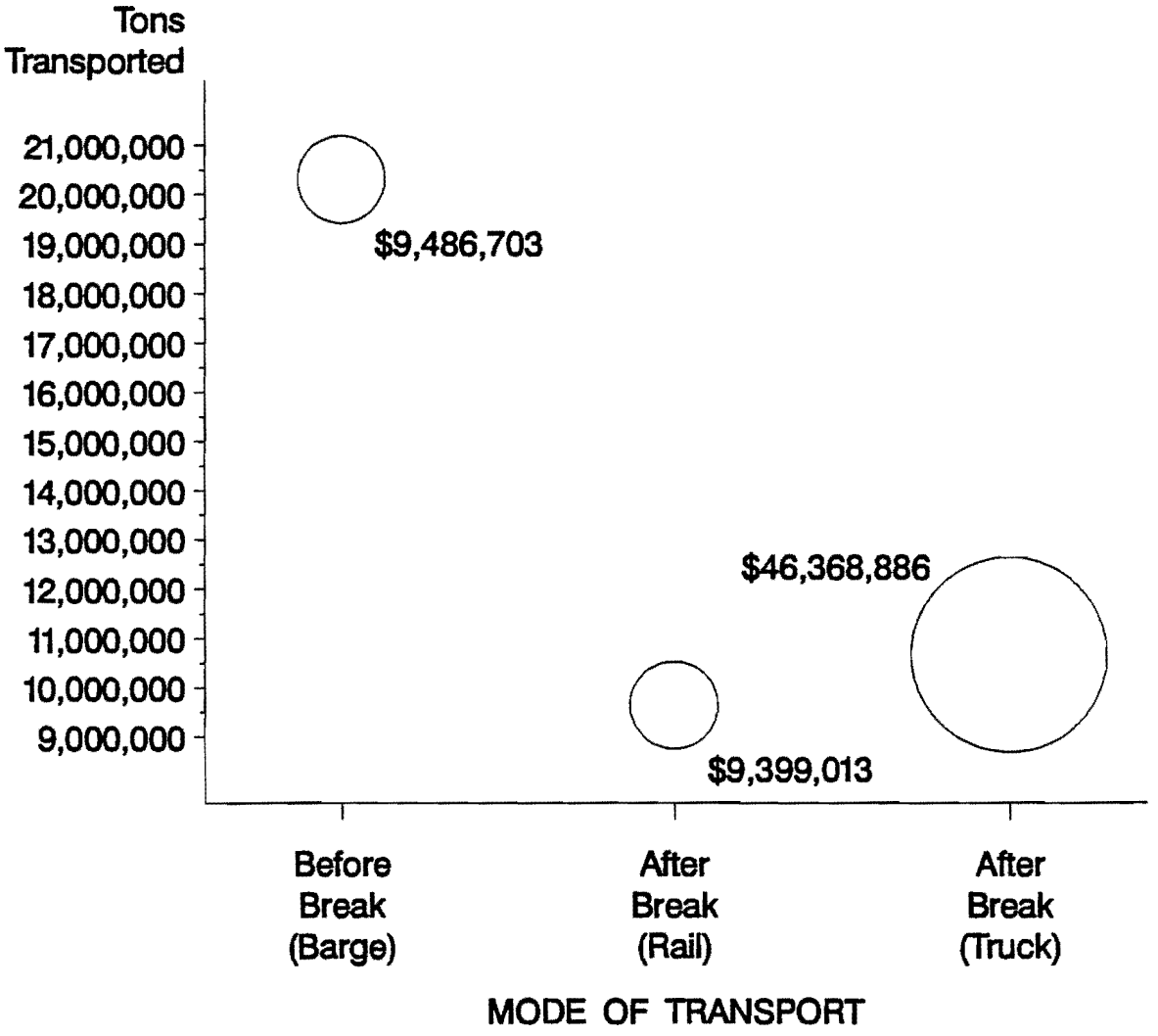
BREAK POINT 360–380 / West Galveston Bay



Note: Barge emissions are pre–break
Rail & Truck emissions are post–break

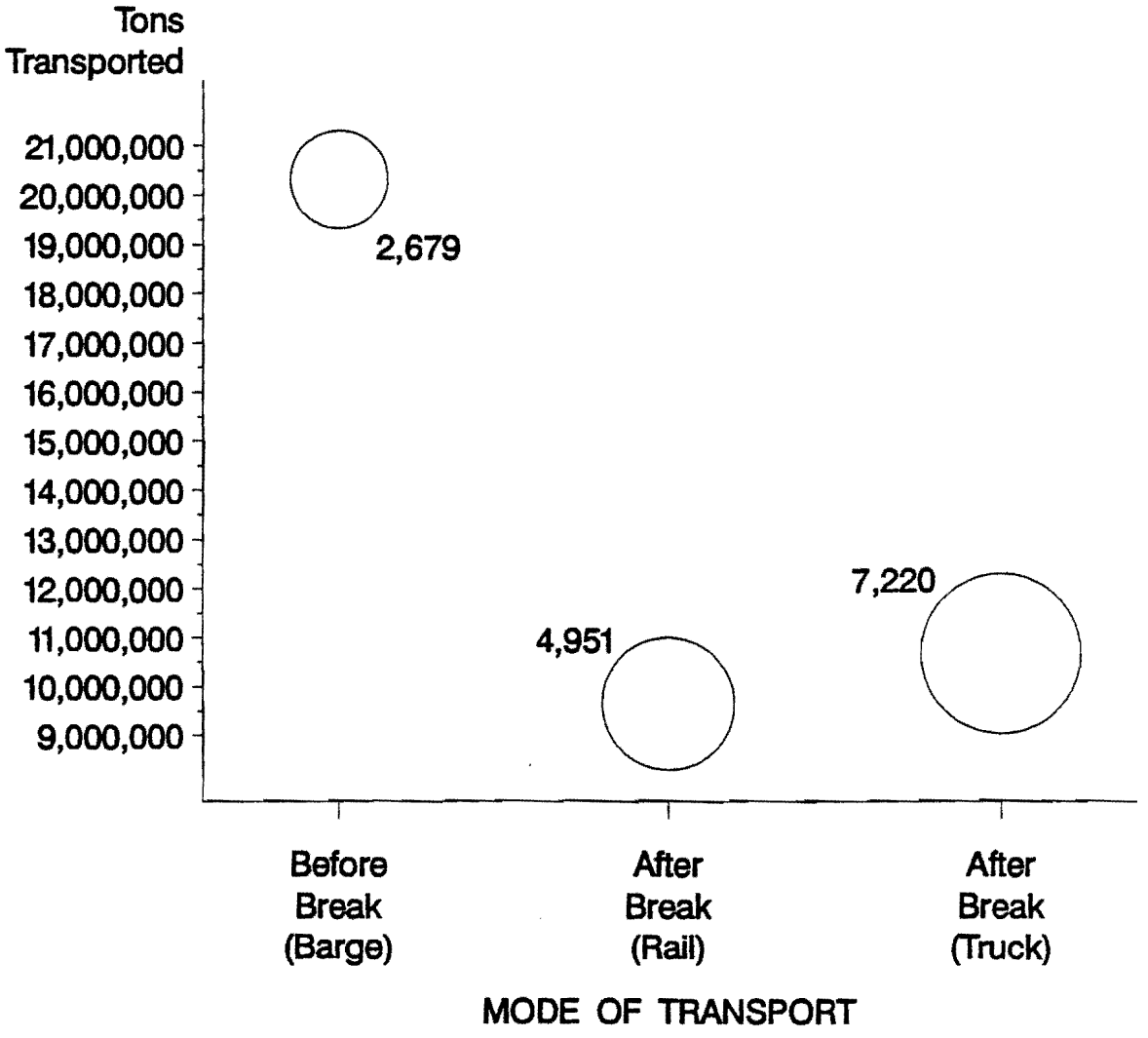
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON – MILES EFFICIENCY
BREAK POINT 360 – 380 / West Galveston Bay



EMISSIONS (Tons)

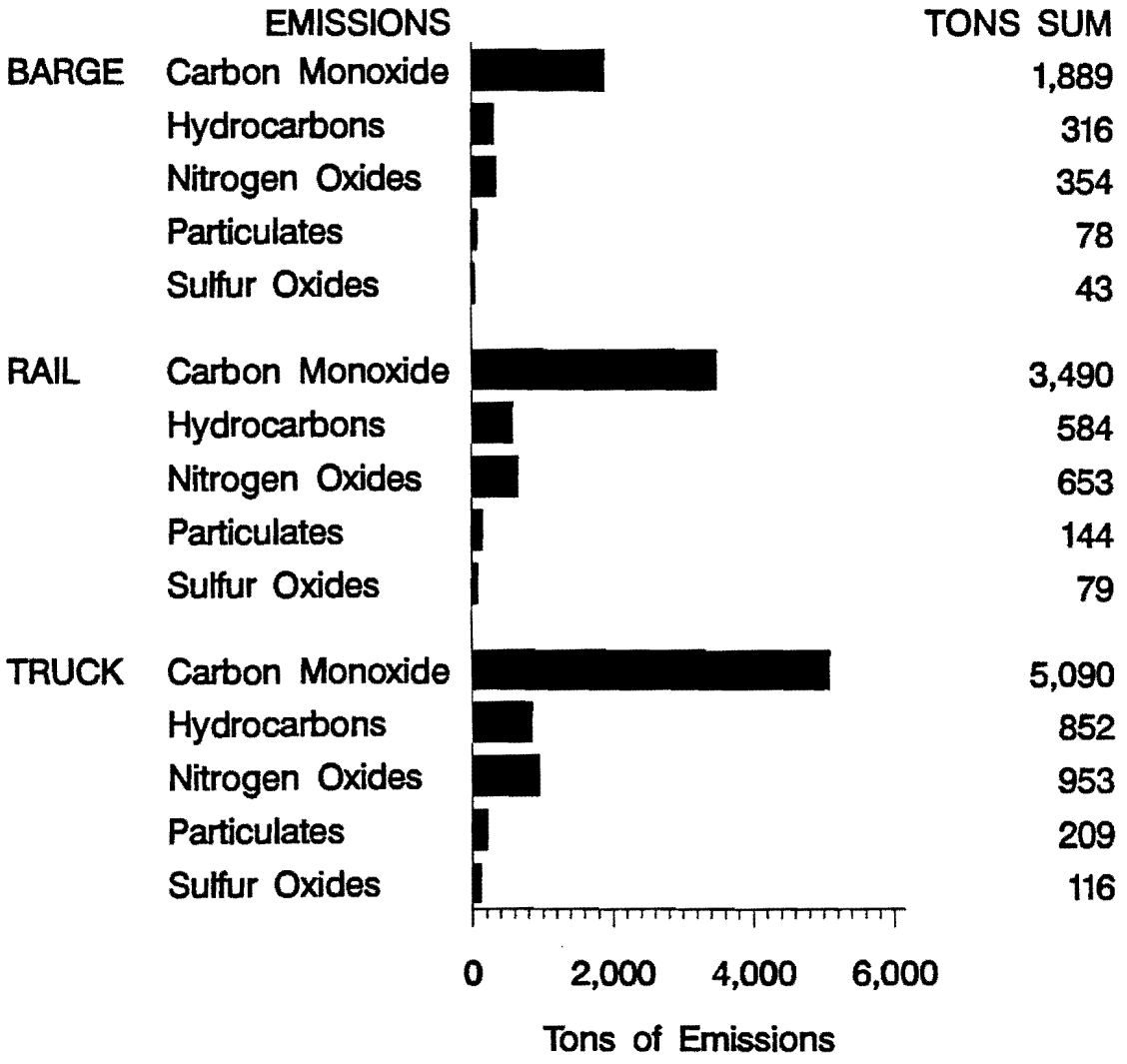
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON-MILES EFFICIENCY
BREAK POINT 360-380 / West Galveston Bay



EMISSIONS (Tons)

HIGH END OF TON–MILE EFFICIENCY

BREAK POINT 360–380 / West Galveston Bay



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	380	274,920	253,641	215,664	490,584	2,197,476	234,111	258,582	2,173,006	342.15	123.31	73.03	392.42	2.33
1	390	572	572	585	1,157	5,748	619	680	5,687	0.89	0.33	0.19	1.03	0.01
1	400	524,054	338,096	533,093	1,057,147	4,732,631	574,219	595,800	4,711,050	736.87	302.45	168.28	871.05	5.02
1	450	963	.	1,268	2,231	7,694	1,485	1,275	7,904	1.20	0.78	0.36	1.62	0.01
1	470	116,950	58,298	121,717	238,667	1,231,165	135,568	147,321	1,219,412	191.69	71.41	41.61	221.49	1.31
1	480	302	302	308	610	3,418	368	404	3,382	0.53	0.19	0.11	0.61	0.00
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	380	62,247	21,884	30,749	92,996	166,123	8,639	14,515	160,247	25.87	4.55	4.10	26.32	0.18
280	400	41,836	35,319	20,666	62,502	137,437	7,147	12,009	132,575	21.40	3.76	3.39	21.77	0.15
280	410	5,134	.	2,536	7,670	17,568	914	1,535	16,947	2.74	0.48	0.43	2.78	0.02
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	380	115,342	11,893	56,978	172,320	274,715	14,286	24,004	264,997	42.77	7.52	6.78	43.52	0.29
290	400	60,034	57,612	29,656	89,690	184,073	9,572	16,084	177,562	28.66	5.04	4.54	29.16	0.20
290	470	1,791	.	884	2,675	8,921	464	780	8,606	1.39	0.24	0.22	1.41	0.01
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	370	535,655	.	264,607	800,262	248,962	12,947	21,753	240,156	38.76	6.82	6.14	39.44	0.26
350	400	366,452	352,862	181,022	547,474	501,604	26,085	43,828	483,861	78.10	13.74	12.38	79.46	0.53
350	410	4,938	4,938	2,440	7,378	7,436	387	650	7,173	1.16	0.20	0.18	1.18	0.01
350	450	152,560	117,520	75,362	227,922	396,768	20,633	34,668	382,734	61.78	10.87	9.79	62.85	0.42
350	470	100,509	98,951	49,650	150,159	330,187	17,171	28,851	318,507	51.41	9.04	8.15	52.31	0.35
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	400	194,200	28,009	95,932	290,132	239,998	12,481	20,970	231,509	37.37	6.57	5.92	38.02	0.25
360	450	59,430	48,174	29,357	88,787	146,426	7,615	12,794	141,247	22.80	4.01	3.61	23.20	0.16
360	460	4,114	.	2,032	6,146	10,924	568	955	10,538	1.70	0.30	0.27	1.73	0.01
360	470	2,107	2,107	1,041	3,148	6,634	345	580	6,399	1.03	0.18	0.16	1.05	0.01
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	1	128,543	92,136	207,913	336,456	1,763,302	360,929	303,644	1,820,588	274.55	190.11	85.76	378.89	1.87
380	280	28,935	15,971	14,293	43,228	79,971	4,159	6,988	77,142	12.45	2.19	1.97	12.67	0.08
380	400	10,151	10,151	5,014	15,165	6,947	361	607	6,701	1.08	0.19	0.17	1.10	0.01

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	1	462,667	430,241	710,364	1,173,031	4,791,832	1,150,309	919,313	5,022,828	746.09	605.89	259.65	1,092.33	5.09
400	280	43,226	39,123	21,353	64,579	150,689	7,836	13,167	145,359	23.46	4.13	3.72	23.87	0.16
400	290	21,394	20,430	10,568	31,962	65,596	3,411	5,732	63,276	10.21	1.80	1.62	10.39	0.07
400	350	209,371	163,238	103,427	312,798	286,590	14,904	25,041	276,453	44.62	7.85	7.07	45.40	0.30
400	360	26,365	15,074	13,024	39,389	32,480	1,689	2,838	31,331	5.06	0.89	0.80	5.15	0.03
410	1	117,043	2,063	127,193	244,236	1,326,485	164,825	169,150	1,322,160	206.53	86.82	47.78	245.58	1.41
410	280	862	862	426	1,288	2,950	153	258	2,846	0.46	0.08	0.07	0.47	0.00
410	350	95,370	2,902	47,111	142,481	143,597	7,468	12,547	138,518	22.36	3.93	3.54	22.75	0.15
410	360	36,869	935	18,213	55,082	50,467	2,624	4,410	48,682	7.86	1.38	1.25	7.99	0.05
410	380	5,691	5,691	2,812	8,503	4,674	243	408	4,509	0.73	0.13	0.12	0.74	0.00
450	1	676	.	692	1,368	6,352	684	751	6,284	0.99	0.36	0.21	1.14	0.01
450	350	170,372	120,664	84,161	254,533	443,093	23,043	38,716	427,420	68.99	12.14	10.94	70.19	0.47
450	360	926	926	458	1,384	2,282	119	199	2,202	0.36	0.06	0.06	0.36	0.00
460	360	35,005	.	17,292	52,297	92,956	4,834	8,122	89,668	14.47	2.55	2.29	14.73	0.10
470	1	118,616	115,662	553,954	672,570	2,506,983	1,350,869	897,105	2,960,747	390.34	711.53	253.38	848.48	2.66
470	290	25,226	.	12,462	37,688	124,309	6,465	10,862	119,912	19.36	3.40	3.07	19.69	0.13
470	350	6,586	6,586	3,254	9,840	21,637	1,125	1,891	20,872	3.37	0.59	0.53	3.43	0.02
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		10,670,943	5,661,786	9,643,251	20,314,194	69,553,328	12,030,737	10,751,597	70,832,468	10,829.50	6,336.80	3,036.71	14,129.59	73.82

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	380	274,920	253,641	215,664	490,584	1,464,984	182,900	228,161	1,419,723	228.10	96.34	64.44	259.99	2.33
1	390	572	572	585	1,157	3,832	483	600	3,715	0.60	0.25	0.17	0.68	0.01
1	400	524,054	338,096	533,093	1,057,147	3,155,087	448,609	525,706	3,077,990	491.25	236.29	148.48	579.06	5.02
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	380	62,247	21,884	30,749	92,996	110,749	6,749	12,808	104,691	17.24	3.55	3.62	17.18	0.18
280	400	41,836	35,319	20,666	62,502	91,624	5,584	10,596	86,612	14.27	2.94	2.99	14.21	0.15
280	410	5,134	.	2,536	7,670	11,712	714	1,354	11,072	1.82	0.38	0.38	1.82	0.02
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	380	115,342	11,893	56,978	172,320	183,143	11,161	21,180	173,125	28.52	5.88	5.98	28.41	0.29
290	400	60,034	57,612	29,656	89,690	122,715	7,479	14,191	116,002	19.11	3.94	4.01	19.04	0.20
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	370	535,655	.	264,607	800,262	165,975	10,115	19,194	156,895	25.84	5.33	5.42	25.75	0.26
350	400	366,452	352,862	181,022	547,474	334,402	20,379	38,672	316,110	52.07	10.73	10.92	51.88	0.53
350	410	4,938	4,938	2,440	7,378	4,957	302	573	4,686	0.77	0.16	0.16	0.77	0.01
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	400	194,200	28,009	95,932	290,132	159,999	9,751	18,503	151,246	24.91	5.14	5.23	24.82	0.25
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	1	128,543	92,136	207,913	336,456	1,175,535	281,976	267,921	1,189,590	183.03	148.52	75.67	255.88	1.87
380	280	28,935	15,971	14,293	43,228	53,314	3,249	6,166	50,398	8.30	1.71	1.74	8.27	0.08
380	400	10,151	10,151	5,014	15,165	4,631	282	536	4,378	0.72	0.15	0.15	0.72	0.01

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	1	462,667	430,241	710,364	1,173,031	3,194,554	898,679	811,158	3,282,075	497.39	473.35	229.11	741.64	5.09
400	280	43,226	39,123	21,353	64,579	100,460	6,122	11,618	94,964	15.64	3.22	3.28	15.58	0.16
400	290	21,394	20,430	10,568	31,962	43,731	2,665	5,057	41,339	6.81	1.40	1.43	6.78	0.07
400	350	209,371	163,238	103,427	312,798	191,060	11,644	22,095	180,608	29.75	6.13	6.24	29.64	0.30
400	360	26,365	15,074	13,024	39,389	21,653	1,320	2,504	20,469	3.37	0.70	0.71	3.36	0.03
410	1	117,043	2,063	127,193	244,236	884,323	128,770	149,250	863,843	137.69	67.83	42.15	163.36	1.41
410	280	862	862	426	1,288	1,967	120	227	1,859	0.31	0.06	0.06	0.31	0.00
410	350	95,370	2,902	47,111	142,481	95,732	5,834	11,071	90,495	14.91	3.07	3.13	14.85	0.15
410	360	36,869	935	18,213	55,082	33,645	2,050	3,891	31,804	5.24	1.08	1.10	5.22	0.05
410	380	5,691	5,691	2,812	8,503	3,116	190	360	2,946	0.49	0.10	0.10	0.48	0.00
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		10,670,943	5,661,786	9,643,251	20,314,194	46,368,886	9,399,013	9,486,703	46,281,195	7,219.67	4,950.63	2,679.45	9,490.84	73.82

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	1,127,684	872,673	2,342,909	20.00	4.84	75.80	3.4	7.3	3,600	3,750	112.50	121.85	0.09
FM1764	160701	151,360	74,303	4,149,703	14.52	13.86	4.55	4.5	4.6	24,000	24,020	375.00	375.63	0.27
FM1764	160702	100,907	49,535	4,149,703	20.00	19.09	4.55	3.0	3.1	24,000	24,013	750.00	750.84	0.54
FM2918	293901	260,217	11,701	4,334,935	20.00	5.60	71.98	7.0	13.0	500	535	15.63	17.78	0.01
FM360	52706	1,141,206	771,908	5,014,448	20.00	5.19	74.07	9.2	17.5	1,500	1,651	46.88	56.33	0.04
FM523	100301	229,532	173,538	1,867,826	20.00	14.54	27.29	3.2	3.6	6,625	6,655	207.03	208.93	0.15
I45	11004	141,377	69,402	12,973,790	6.95	6.90	0.68	11.4	11.4	62,000	62,019	968.75	969.34	0.44
I45	11005	124,458	61,097	5,528,218	2.18	2.17	0.44	10.0	10.0	95,667	95,684	1494.8	1495.3	0.68
I45	67508	215,718	105,897	15,422,523	12.91	12.70	1.60	17.4	17.5	26,000	26,029	406.25	407.14	0.19
S134	37602	785,801	417,645	7,009,427	20.00	15.89	20.54	6.5	7.1	15,900	16,004	496.88	503.39	0.36
S146	38905	745,688	396,281	2,496,949	9.75	7.72	20.75	6.2	6.8	15,700	15,799	245.31	248.40	0.18
S146	38906	908,939	483,228	2,496,949	10.65	7.89	25.85	7.5	8.5	11,786	11,907	184.16	187.92	0.13
S146	38912	580,713	308,415	2,496,949	9.98	8.26	17.27	4.8	5.2	19,700	19,777	307.81	310.22	0.22
S197	38911	182,052	89,370	3,294,557	20.00	16.72	16.39	5.4	5.8	5,833	5,857	182.28	183.79	0.13
S288	59804	1,337,480	1,003,410	2,655,275	6.85	5.26	23.12	12.2	13.4	12,600	12,777	196.88	202.42	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	583,610	441,240	2,057,202	11.46	8.93	22.09	8.1	8.9	8,767	8,844	273.97	278.81	0.20
S341	62801	201,813	99,071	4,149,703	20.00	16.34	18.32	6.0	6.5	5,100	5,127	79.69	80.52	0.06
S348	68601	376,718	184,932	7,909,001	19.32	17.88	7.42	11.2	11.5	14,500	14,550	453.13	456.25	0.33
S35	17801	2,862,874	1,738,517	1,764,574	5.81	3.15	45.90	5.3	7.0	21,500	21,880	335.94	347.80	0.25
S35	17802	2,862,874	1,738,517	2,342,909	10.26	4.82	53.00	6.3	8.8	13,773	14,153	215.20	227.07	0.16
S35	17803	2,862,874	1,738,517	2,342,909	13.82	5.49	60.30	7.2	11.0	8,900	9,280	139.06	150.93	0.11
S35	17901	1,899,996	1,026,850	2,342,909	10.29	5.88	42.87	10.4	13.0	8,300	8,552	129.69	137.56	0.10
S35	17902	1,899,996	1,026,850	2,342,909	10.46	5.93	43.27	10.3	13.0	8,222	8,474	256.94	272.69	0.19
S35	17903	1,799,688	1,019,009	2,342,909	13.90	7.09	48.99	10.5	13.9	6,067	6,306	189.59	204.51	0.15
S36	18705	1,247,510	780,610	2,535,398	13.80	8.57	37.91	15.1	18.0	4,600	4,765	143.75	154.09	0.11
S36	18801	1,247,510	780,610	2,535,398	11.10	7.44	32.94	8.7	10.2	9,900	10,065	309.38	319.72	0.23
S36	18802	1,247,510	780,610	2,535,398	19.72	10.53	46.60	10.2	13.3	4,750	4,915	148.44	158.78	0.11
S36	18803	1,247,510	780,610	3,516,385	20.00	11.73	41.35	10.2	12.6	6,013	6,178	187.91	198.25	0.14
S36	18804	1,247,510	780,610	3,516,385	16.53	10.94	33.83	7.4	8.7	11,367	11,532	355.22	365.56	0.26
S36	18805	1,247,510	780,610	3,516,385	20.00	10.59	47.05	8.1	10.5	6,000	6,165	187.50	197.84	0.14
S36	18806	1,247,510	780,610	3,516,385	20.00	10.98	45.10	7.7	9.9	6,820	6,985	213.13	223.47	0.16
S8	325603	1,999,962	1,249,703	4,149,703	15.04	9.11	39.47	4.0	5.0	26,067	26,332	271.53	277.06	0.20
S8	325604	1,999,962	1,249,703	4,149,703	15.68	9.34	40.48	4.0	5.0	25,000	25,265	260.42	265.94	0.19
S87	37606	1,012,851	497,211	6,504,983	20.00	11.44	42.81	9.2	11.6	5,000	5,134	156.25	164.65	0.12
US59	17707	6,522,324	3,420,953	4,149,703	2.37	1.78	25.13	6.2	7.0	106,000	106,865	1656.3	1683.3	0.77
US75	5104	1,012,851	497,211	6,011,120	10.14	8.79	13.32	6.2	6.6	36,000	36,134	562.50	566.70	0.26
US90	2801	233,977	192,980	3,715,330	12.14	11.36	6.43	7.1	7.2	16,375	16,406	255.86	256.83	0.12
US90	2802	233,977	192,980	3,715,330	20.00	17.82	10.91	7.3	7.6	8,900	8,931	139.06	140.03	0.06
US90A	2710	47,185	23,163	3,715,330	13.96	13.74	1.57	3.8	3.8	26,480	26,486	413.75	413.95	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	384,927	287,284	1,252,801	20.00	5.63	71.84	7.9	14.5	660	711	20.63	23.82	0.02
FM2717	271401	169,446	127,815	2,094,784	20.00	4.88	75.58	7.9	15.8	240	262	7.50	8.90	0.01
FM2760	271403	204,281	154,091	2,568,860	20.00	9.41	52.96	9.5	13.1	660	687	20.63	22.32	0.02
S316	58001	373,727	281,906	1,642,425	20.00	4.37	78.15	4.8	10.8	740	790	23.13	26.22	0.02
S35	17904	1,793,692	1,018,147	2,276,676	7.94	5.08	36.02	10.5	12.5	10,317	10,555	161.20	168.64	0.12
S35	17906	1,410,405	730,863	2,276,676	11.85	7.14	39.76	11.8	14.4	6,150	6,337	96.09	101.94	0.07
S35	17907	1,410,405	730,863	2,276,676	15.25	8.24	45.94	16.4	20.8	3,430	3,617	107.19	118.88	0.08
S35	17908	1,410,405	730,863	2,276,676	20.00	5.20	74.00	6.4	12.6	2,638	2,825	82.44	94.13	0.07
S35	17909	1,371,286	730,863	2,276,676	18.12	9.14	49.54	15.3	20.0	3,100	3,282	96.88	108.24	0.08
S35	17910	1,371,286	730,863	1,795,577	8.02	5.17	35.52	10.0	11.8	8,500	8,682	132.81	138.50	0.10
S35	18001	1,233,427	623,218	1,795,577	6.49	4.63	28.64	13.1	14.9	7,964	8,128	248.88	259.10	0.19
S60	24101	384,927	287,284	1,952,424	16.05	12.50	22.16	10.8	11.8	4,260	4,311	133.13	136.32	0.10
S60	24102	384,927	287,284	2,276,676	15.73	12.69	19.30	8.7	9.4	6,325	6,376	98.83	100.42	0.07
S60	24103	384,927	287,284	2,276,676	20.00	12.29	38.53	3.6	4.4	5,800	5,851	90.63	92.22	0.07
S60	24104	384,927	287,284	2,276,676	20.00	11.16	44.21	6.9	8.8	2,400	2,451	75.00	78.19	0.06
US59	8905	5,379,479	2,649,046	2,112,832	2.78	1.70	38.88	21.1	25.1	13,600	14,313	212.50	234.80	0.11
US59	8904	5,379,479	2,649,046	2,112,832	2.78	1.70	38.92	21.4	25.4	13,400	14,113	209.38	231.67	0.11
US59	8903	5,379,479	2,649,046	2,112,832	2.39	1.54	35.34	21.8	25.3	15,350	16,063	239.84	262.14	0.12
US59	8901	5,379,479	2,649,046	5,841,189	11.03	5.76	47.76	13.6	17.5	14,767	15,480	230.73	253.03	0.12
US59	8804	4,715,640	2,155,362	5,841,189	11.42	6.24	45.33	15.0	19.0	12,867	13,492	201.05	220.59	0.10
US87	14306	235,868	174,261	5,841,189	20.00	15.32	23.42	9.2	10.2	2,850	2,881	89.06	91.02	0.04
US87	14307	235,868	174,261	5,841,189	20.00	13.22	33.90	9.2	10.8	1,700	1,731	53.13	55.08	0.03
US87	14308	235,868	174,261	8,872,292	20.00	17.47	12.65	9.2	9.7	6,020	6,051	188.13	190.08	0.09
US87	14309	235,868	174,261	8,872,292	20.00	17.55	12.24	10.1	10.6	5,667	5,698	177.09	179.05	0.08
US87	14310	235,868	174,261	5,009,267	19.39	17.92	7.59	11.8	12.1	8,280	8,311	258.75	260.71	0.12
US87	14401	235,868	174,261	5,009,267	20.00	16.85	15.74	6.7	7.2	6,363	6,394	198.84	200.80	0.09
US87	14403	235,868	174,261	2,276,676	20.00	16.36	18.22	7.5	8.1	4,800	4,831	150.00	151.96	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	23,577	12,366	3,436,383	20.00	19.47	2.66	5.8	5.9	5,100	5,103	79.69	79.79	0.06
FM2725	275601	27,235	14,285	3,074,361	20.00	18.69	6.56	6.7	6.9	2,000	2,004	62.50	62.73	0.04
S35	18003	73,388	21,362	1,791,737	15.08	14.29	5.26	14.0	14.3	3,200	3,210	100.00	100.61	0.07
S35	18004	73,388	21,362	1,791,737	6.71	6.55	2.41	9.5	9.6	10,592	10,602	331.00	331.61	0.24
S35	18005	73,388	21,362	1,791,737	7.71	7.50	2.76	9.9	10.0	8,867	8,877	277.09	277.70	0.20
S358	61701	4,562,647	2,123,022	2,810,157	5.12	2.94	42.55	4.3	5.5	48,638	49,243	506.65	519.25	0.37
S361	18010	50,812	26,651	1,470,362	9.81	9.52	2.96	10.3	10.4	5,500	5,507	171.88	172.30	0.12

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay

DISTRICT=CORPUS CHRISTI DISTRICT (continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
S44	10201	4,562,647	2,123,022	1,316,451	8.73	2.35	73.14	7.4	14.1	7,700	8,305	120.31	139.22	0.1
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.0
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.0
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.0
US77	37102	2,041,354	959,203	2,129,917	4.02	2.98	25.73	19.9	22.0	10,043	10,314	156.92	165.38	0.0
US77	37103	2,041,354	959,203	2,129,917	20.00	3.93	80.37	18.8	37.6	900	1,171	14.06	22.52	0.0
US77	37104	4,715,338	2,155,060	2,483,647	6.83	3.15	53.82	18.8	25.2	7,300	7,925	114.06	133.61	0.0
US77	37203	4,705,067	2,149,771	2,483,647	15.17	4.23	72.11	7.8	14.5	7,933	8,557	123.95	143.45	0.0
US77	37201	4,705,067	2,149,771	2,483,647	4.38	2.51	42.74	16.2	20.0	13,200	13,824	206.25	225.75	0.1
US77	37301	4,705,067	2,149,771	1,167,359	1.42	0.94	33.94	16.0	18.6	19,475	20,099	304.30	323.80	0.1
US77	10202	142,421	26,749	1,167,359	1.52	1.50	1.65	20.7	20.8	13,975	13,994	218.36	218.95	0.1
US77	10203	142,421	26,749	1,167,359	1.33	1.31	1.44	20.4	20.5	16,300	16,319	254.69	255.28	0.1
US77	10204	142,421	26,749	2,483,647	3.34	3.28	1.69	22.7	22.8	12,386	12,405	193.53	194.12	0.0
US77	32701	142,421	26,749	2,483,647	4.78	4.66	2.40	28.9	29.1	6,800	6,819	106.25	106.84	0.0

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
I10	73902	3,464,424	2,023,719	4,790,983	2.67	2.28	14.68	26.5	27.8	26,000	26,459	406.25	420.61	0.1
I10	73901	3,464,424	2,023,719	4,790,983	2.55	2.19	14.12	28.9	30.2	25,000	25,459	390.63	404.98	0.1
I10	50803	3,464,424	2,023,719	4,790,983	2.56	2.20	14.17	26.2	27.4	27,500	27,959	429.69	444.05	0.2
I10	50802	3,464,424	2,023,719	4,790,983	2.56	2.20	14.15	23.8	24.9	30,333	30,792	473.95	488.31	0.2
US90	2807	233,977	192,980	1,436,461	2.65	2.55	3.73	8.1	8.2	25,333	25,364	395.83	396.80	0.1
US90	2806	233,977	192,980	1,436,461	6.02	5.53	8.10	12.7	13.1	7,122	7,153	111.28	112.25	0.0

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
FM106	142503	71,643	26,749	1,673,506	20.00	18.57	7.15	10.9	11.2	2,900	2,910	90.63	91.22	0.0
FM2925	63003	71,643	26,749	1,673,506	20.00	13.00	35.02	7.7	9.2	587	597	18.34	18.94	0.0
FM508	34204	71,643	26,749	1,673,506	20.00	17.08	14.59	6.6	7.0	2,160	2,170	67.50	68.09	0.0
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.3

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay

DISTRICT=CORPUS CHRISTI DISTRICT (continued)

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
44	10201	4,562,647	2,123,022	1,316,451	8.73	2.35	73.14	7.4	14.1	7,700	8,305	120.31	139.22	0.10
S59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
S59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
S59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
S77	37102	2,041,354	959,203	2,129,917	4.02	2.98	25.73	19.9	22.0	10,043	10,314	156.92	165.38	0.08
S77	37103	2,041,354	959,203	2,129,917	20.00	3.93	80.37	18.8	37.6	900	1,171	14.06	22.52	0.01
S77	37104	4,715,338	2,155,060	2,483,647	6.83	3.15	53.82	18.8	25.2	7,300	7,925	114.06	133.61	0.06
S77	37203	4,705,067	2,149,771	2,483,647	15.17	4.23	72.11	7.8	14.5	7,933	8,557	123.95	143.45	0.07
S77	37201	4,705,067	2,149,771	2,483,647	4.38	2.51	42.74	16.2	20.0	13,200	13,824	206.25	225.75	0.10
S77	37301	4,705,067	2,149,771	1,167,359	1.42	0.94	33.94	16.0	18.6	19,475	20,099	304.30	323.80	0.15
S77	10202	142,421	26,749	1,167,359	1.52	1.50	1.65	20.7	20.8	13,975	13,994	218.36	218.95	0.10
S77	10203	142,421	26,749	1,167,359	1.33	1.31	1.44	20.4	20.5	16,300	16,319	254.69	255.28	0.12
S77	10204	142,421	26,749	2,483,647	3.34	3.28	1.69	22.7	22.8	12,386	12,405	193.53	194.12	0.09
S77	32701	142,421	26,749	2,483,647	4.78	4.66	2.40	28.9	29.1	6,800	6,819	106.25	106.84	0.05

DISTRICT=BEAUMONT DISTRICT

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
10	73902	3,464,424	2,023,719	4,790,983	2.67	2.28	14.68	26.5	27.8	26,000	26,459	406.25	420.61	0.19
10	73901	3,464,424	2,023,719	4,790,983	2.55	2.19	14.12	28.9	30.2	25,000	25,459	390.63	404.98	0.18
10	50803	3,464,424	2,023,719	4,790,983	2.56	2.20	14.17	26.2	27.4	27,500	27,959	429.69	444.05	0.20
10	50802	3,464,424	2,023,719	4,790,983	2.56	2.20	14.15	23.8	24.9	30,333	30,792	473.95	488.31	0.22
S90	2807	233,977	192,980	1,436,461	2.65	2.55	3.73	8.1	8.2	25,333	25,364	395.83	396.80	0.18
S90	2806	233,977	192,980	1,436,461	6.02	5.53	8.10	12.7	13.1	7,122	7,153	111.28	112.25	0.05

DISTRICT=PHARR DISTRICT

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
106	142503	71,643	26,749	1,673,506	20.00	18.57	7.15	10.9	11.2	2,900	2,910	90.63	91.22	0.07
2925	63003	71,643	26,749	1,673,506	20.00	13.00	35.02	7.7	9.2	587	597	18.34	18.94	0.01
508	34204	71,643	26,749	1,673,506	20.00	17.08	14.59	6.6	7.0	2,160	2,170	67.50	68.09	0.05
00	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	142,421	26,749	5,006,733	9.84	9.60	2.46	29.6	29.8	6,500	6,519	101.56	102.15	0.05
US77	32703	142,421	26,749	5,006,733	10.24	9.98	2.55	30.3	30.5	6,100	6,119	95.31	95.90	0.04
US77	32704	142,421	26,749	5,006,733	10.38	10.11	2.59	30.4	30.6	6,000	6,019	93.75	94.34	0.04
US77	32705	142,421	26,749	5,006,733	9.39	9.17	2.35	30.1	30.3	6,700	6,719	104.69	105.28	0.05
US77	32710	142,421	26,749	1,951,437	3.48	3.40	2.23	25.6	25.8	8,287	8,306	129.48	130.07	0.06
US77	32708	142,421	26,749	1,951,437	13.66	12.54	8.23	5.4	5.6	10,000	10,019	104.17	104.56	0.05
US77	3907	142,421	26,749	1,951,437	1.14	1.13	0.74	23.2	23.3	27,920	27,939	436.25	436.84	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	380	164,952	152,185	129,398	294,350	1,318,486	140,467	155,149	1,303,803	205.29	73.99	43.82	235.45	1.40
1	390	343	343	351	694	3,449	371	408	3,412	0.54	0.20	0.12	0.62	0.00
1	400	314,432	202,858	319,856	634,288	2,839,579	344,531	357,480	2,826,630	442.12	181.47	100.97	522.63	3.01
1	450	578	.	761	1,339	4,617	891	765	4,742	0.72	0.47	0.22	0.97	0.00
1	470	70,170	34,979	73,030	143,200	738,699	81,341	88,392	731,647	115.02	42.84	24.97	132.89	0.78
1	480	181	181	185	366	2,051	221	243	2,029	0.32	0.12	0.07	0.37	0.00
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	380	37,348	13,131	18,449	55,798	99,674	5,183	8,709	96,148	15.52	2.73	2.46	15.79	0.11
280	400	25,101	21,191	12,400	37,501	82,462	4,288	7,205	79,545	12.84	2.26	2.04	13.06	0.09
280	410	3,080	.	1,522	4,602	10,541	548	921	10,168	1.64	0.29	0.26	1.67	0.01
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	380	69,205	7,136	34,187	103,392	164,829	8,572	14,402	158,998	25.66	4.51	4.07	26.11	0.17
290	400	36,020	34,567	17,794	53,814	110,444	5,743	9,650	106,537	17.20	3.03	2.73	17.50	0.12
290	470	1,074	.	531	1,605	5,353	278	468	5,163	0.83	0.15	0.13	0.85	0.01
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	370	321,393	.	158,764	480,157	149,377	7,768	13,052	144,093	23.26	4.09	3.69	23.66	0.16
350	400	219,871	211,717	108,613	328,484	300,962	15,651	26,297	290,316	46.86	8.24	7.43	47.68	0.32
350	410	2,963	2,963	1,464	4,427	4,461	232	390	4,304	0.69	0.12	0.11	0.71	0.00
350	450	91,536	70,512	45,217	136,753	238,061	12,380	20,801	229,640	37.07	6.52	5.88	37.71	0.25
350	470	60,305	59,371	29,790	90,095	198,112	10,303	17,310	191,104	30.85	5.43	4.89	31.38	0.21
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	400	116,520	16,805	57,559	174,079	143,999	7,488	12,582	138,905	22.42	3.94	3.55	22.81	0.15
360	450	35,658	28,904	17,614	53,272	87,856	4,569	7,677	84,748	13.68	2.41	2.17	13.92	0.09
360	460	2,468	.	1,219	3,688	6,555	341	573	6,323	1.02	0.18	0.16	1.04	0.01
360	470	1,264	1,264	625	1,889	3,980	207	348	3,839	0.62	0.11	0.10	0.63	0.00
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	1	77,126	55,282	124,748	201,874	1,057,981	216,558	182,186	1,092,353	164.73	114.06	51.46	227.34	1.12
380	280	17,361	9,582	8,576	25,937	47,983	2,495	4,193	46,285	7.47	1.31	1.18	7.60	0.05
380	400	6,090	6,090	3,009	9,099	4,168	217	364	4,021	0.65	0.11	0.10	0.66	0.00

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	1	277,600	258,145	426,218	703,819	2,875,099	690,185	551,588	3,013,697	447.65	363.53	155.79	655.40	3.05
400	280	25,936	23,474	12,812	38,747	90,414	4,702	7,900	87,216	14.08	2.48	2.23	14.32	0.10
400	290	12,836	12,258	6,341	19,177	39,358	2,047	3,439	37,966	6.13	1.08	0.97	6.23	0.04
400	350	125,623	97,943	62,056	187,679	171,954	8,942	15,025	165,872	26.77	4.71	4.24	27.24	0.18
400	360	15,819	9,045	7,814	23,633	19,488	1,013	1,703	18,799	3.03	0.53	0.48	3.09	0.02
410	1	70,226	1,238	76,316	146,542	795,891	98,895	101,490	793,296	123.92	52.09	28.67	147.35	0.84
410	280	517	517	256	773	1,770	92	155	1,708	0.28	0.05	0.04	0.28	0.00
410	350	57,222	1,741	28,267	85,489	86,158	4,481	7,528	83,111	13.41	2.36	2.13	13.65	0.09
410	360	22,121	561	10,928	33,049	30,280	1,575	2,646	29,209	4.71	0.83	0.75	4.80	0.03
410	380	3,415	3,415	1,687	5,102	2,805	146	245	2,705	0.44	0.08	0.07	0.44	0.00
450	1	406	.	415	821	3,811	410	451	3,770	0.59	0.22	0.13	0.68	0.00
450	350	102,223	72,398	50,497	152,720	265,856	13,826	23,230	256,452	41.39	7.28	6.56	42.12	0.28
450	360	556	556	275	830	1,369	71	120	1,321	0.21	0.04	0.03	0.22	0.00
460	360	21,003	.	10,375	31,378	55,773	2,900	4,873	53,801	8.68	1.53	1.38	8.84	0.06
470	1	71,170	69,397	332,372	403,542	1,504,190	810,521	538,263	1,776,448	234.20	426.92	152.03	509.09	1.60
470	290	15,136	.	7,477	22,613	74,585	3,879	6,517	71,947	11.61	2.04	1.84	11.82	0.08
470	350	3,952	3,952	1,952	5,904	12,982	675	1,134	12,523	2.02	0.36	0.32	2.06	0.01
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		6,402,566	3,397,071	5,785,950	12,188,516	41,731,997	7,218,442	6,450,958	42,499,481	6,497.70	3,802.08	1,822.03	8,477.75	44.29

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	380	274,920	253,641	215,664	490,584	1,464,984	182,900	228,161	1,419,723	228.10	96.34	64.44	259.99	2.33
1	390	572	572	585	1,157	3,832	483	600	3,715	0.60	0.25	0.17	0.68	0.01
1	400	524,054	338,096	533,093	1,057,147	3,155,087	448,609	525,706	3,077,990	491.25	236.29	148.48	579.06	5.02
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	380	62,247	21,884	30,749	92,996	110,749	6,749	12,808	104,691	17.24	3.55	3.62	17.18	0.18
280	400	41,836	35,319	20,666	62,502	91,624	5,584	10,596	86,612	14.27	2.94	2.99	14.21	0.15
280	410	5,134	.	2,536	7,670	11,712	714	1,354	11,072	1.82	0.38	0.38	1.82	0.02
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	380	115,342	11,893	56,978	172,320	183,143	11,161	21,180	173,125	28.52	5.88	5.98	28.41	0.29
290	400	60,034	57,612	29,656	89,690	122,715	7,479	14,191	116,002	19.11	3.94	4.01	19.04	0.20
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	370	535,655	.	264,607	800,262	165,975	10,115	19,194	156,895	25.84	5.33	5.42	25.75	0.26
350	400	366,452	352,862	181,022	547,474	334,402	20,379	38,672	316,110	52.07	10.73	10.92	51.88	0.53
350	410	4,938	4,938	2,440	7,378	4,957	302	573	4,686	0.77	0.16	0.16	0.77	0.01
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	400	194,200	28,009	95,932	290,132	159,999	9,751	18,503	151,246	24.91	5.14	5.23	24.82	0.25
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	1	128,543	92,136	207,913	336,456	1,175,535	281,976	267,921	1,189,590	183.03	148.52	75.67	255.88	1.87
380	280	28,935	15,971	14,293	43,228	53,314	3,249	6,166	50,398	8.30	1.71	1.74	8.27	0.08
380	400	10,151	10,151	5,014	15,165	4,631	282	536	4,378	0.72	0.15	0.15	0.72	0.01

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 360-380 / West Galveston Bay

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	1	462,667	430,241	710,364	1,173,031	3,194,554	898,679	811,158	3,282,075	497.39	473.35	229.11	741.64	5.09
400	280	43,226	39,123	21,353	64,579	100,460	6,122	11,618	94,964	15.64	3.22	3.28	15.58	0.16
400	290	21,394	20,430	10,568	31,962	43,731	2,665	5,057	41,339	6.81	1.40	1.43	6.78	0.07
400	350	209,371	163,238	103,427	312,798	191,060	11,644	22,095	180,608	29.75	6.13	6.24	29.64	0.30
400	360	26,365	15,074	13,024	39,389	21,653	1,320	2,504	20,469	3.37	0.70	0.71	3.36	0.03
410	1	117,043	2,063	127,193	244,236	884,323	128,770	149,250	863,843	137.69	67.83	42.15	163.36	1.41
410	280	862	862	426	1,288	1,967	120	227	1,859	0.31	0.06	0.06	0.31	0.00
410	350	95,370	2,902	47,111	142,481	95,732	5,834	11,071	90,495	14.91	3.07	3.13	14.85	0.15
410	360	36,869	935	18,213	55,082	33,645	2,050	3,891	31,804	5.24	1.08	1.10	5.22	0.05
410	380	5,691	5,691	2,812	8,503	3,116	190	360	2,946	0.49	0.10	0.10	0.48	0.00
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		10,670,943	5,661,786	9,643,251	20,314,194	46,368,886	9,399,013	9,486,703	46,281,195	7,219.67	4,950.63	2,679.45	9,490.84	73.82

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	676,611	523,604	2,342,909	20.00	6.95	65.27	3.4	5.7	3,600	3,690	112.50	118.11	0.08
FM1764	160701	90,816	44,582	4,149,703	14.52	14.12	2.78	4.5	4.5	24,000	24,012	375.00	375.38	0.27
FM1764	160702	60,544	29,721	4,149,703	20.00	19.44	2.78	3.0	3.0	24,000	24,008	750.00	750.50	0.54
FM2918	293901	156,130	7,021	4,334,935	20.00	7.87	60.65	7.0	10.7	500	521	15.63	16.92	0.01
FM360	52706	684,723	463,145	5,014,448	20.00	7.37	63.16	9.2	14.4	1,500	1,591	46.88	52.55	0.04
FM523	100301	137,719	104,123	1,867,826	20.00	16.32	18.38	3.2	3.5	6,625	6,643	207.03	208.17	0.15
I45	11004	84,826	41,641	12,973,790	6.95	6.92	0.41	11.4	11.4	62,000	62,011	968.75	969.10	0.44
I45	11005	74,675	36,658	5,528,218	2.18	2.17	0.26	10.0	10.0	95,667	95,677	1494.8	1495.1	0.68
I45	67508	129,431	63,538	15,422,523	12.91	12.78	0.96	17.4	17.4	26,000	26,017	406.25	406.79	0.18
S134	37602	471,481	250,587	7,009,427	20.00	17.31	13.43	6.5	6.9	15,900	15,963	496.88	500.78	0.36
S146	38905	447,413	237,769	2,496,949	9.75	8.42	13.58	6.2	6.5	15,700	15,759	245.31	247.17	0.18
S146	38906	545,363	289,937	2,496,949	10.65	8.81	17.30	7.5	8.1	11,786	11,858	184.16	186.42	0.13
S146	38912	348,428	185,049	2,496,949	9.98	8.87	11.13	4.8	5.0	19,700	19,746	307.81	309.26	0.22
S197	38911	109,231	53,622	3,294,557	20.00	17.89	10.53	5.4	5.6	5,833	5,847	182.28	183.19	0.13
S288	59804	802,488	602,046	2,655,275	6.85	5.80	15.29	12.2	12.9	12,600	12,706	196.88	200.20	0.14
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
S332	58601	350,166	264,744	2,057,202	11.46	9.80	14.54	8.1	8.6	8,767	8,813	273.97	276.87	0.20
S341	62801	121,088	59,442	4,149,703	20.00	17.63	11.86	6.0	6.3	5,100	5,116	79.69	80.19	0.06
S348	68601	226,031	110,959	7,909,001	19.32	18.43	4.59	11.2	11.4	14,500	14,530	453.13	455.00	0.32
S35	17801	1,717,724	1,043,110	1,764,574	5.81	3.85	33.73	5.3	6.3	21,500	21,728	335.94	343.06	0.25
S35	17802	1,717,724	1,043,110	2,342,909	10.26	6.12	40.36	6.3	7.8	13,773	14,001	215.20	222.32	0.16
S35	17803	1,717,724	1,043,110	2,342,909	13.82	7.23	47.68	7.2	9.5	8,900	9,128	139.06	146.18	0.10
S35	17901	1,139,998	616,110	2,342,909	10.29	7.09	31.04	10.4	12.0	8,300	8,451	129.69	134.41	0.10
S35	17902	1,139,998	616,110	2,342,909	10.46	7.17	31.40	10.3	11.9	8,222	8,373	256.94	266.39	0.19
S35	17903	1,079,813	611,405	2,342,909	13.90	8.82	36.56	10.5	12.6	6,067	6,210	189.59	198.54	0.14
S36	18705	748,506	468,366	2,535,398	13.80	10.10	26.81	15.1	16.9	4,600	4,699	143.75	149.95	0.11
S36	18801	748,506	468,366	2,535,398	11.10	8.57	22.76	8.7	9.6	9,900	9,999	309.38	315.58	0.23
S36	18802	748,506	468,366	2,535,398	19.72	12.94	34.37	10.2	12.1	4,750	4,849	148.44	154.64	0.11
S36	18803	748,506	468,366	3,516,385	20.00	14.05	29.73	10.2	11.6	6,013	6,112	187.91	194.11	0.14
S36	18804	748,506	468,366	3,516,385	16.53	12.65	23.47	7.4	8.2	11,367	11,466	355.22	361.42	0.26
S36	18805	748,506	468,366	3,516,385	20.00	13.05	34.77	8.1	9.6	6,000	6,099	187.50	193.70	0.14
S36	18806	748,506	468,366	3,516,385	20.00	13.40	33.02	7.7	9.0	6,820	6,919	213.13	219.33	0.16
S8	325603	1,199,977	749,822	4,149,703	15.04	10.81	28.12	4.0	4.6	26,067	26,226	271.53	274.85	0.20
S8	325604	1,199,977	749,822	4,149,703	15.68	11.14	28.98	4.0	4.6	25,000	25,159	260.42	263.73	0.19
S87	37606	607,710	298,326	6,504,983	20.00	13.80	31.00	9.2	10.6	5,000	5,081	156.25	161.29	0.12
US59	17707	3,913,395	2,052,572	4,149,703	2.37	1.98	16.76	6.2	6.7	106,000	106,519	1656.3	1672.5	0.76
US75	5104	607,710	298,326	6,011,120	10.14	9.28	8.44	6.2	6.4	36,000	36,081	562.50	565.02	0.26
US90	2801	140,386	115,788	3,715,330	12.14	11.65	3.96	7.1	7.2	16,375	16,394	255.86	256.44	0.12
US90	2802	140,386	115,788	3,715,330	20.00	18.63	6.84	7.3	7.5	8,900	8,919	139.06	139.64	0.06
US90A	2710	28,311	13,898	3,715,330	13.96	13.82	0.95	3.8	3.8	26,480	26,484	413.75	413.87	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	230,956	172,371	1,252,801	20.00	7.90	60.48	7.9	12.0	660	691	20.63	22.54	0.02
FM2717	271401	101,667	76,689	2,094,784	20.00	7.00	65.00	7.9	12.8	240	253	7.50	8.34	0.01
FM2760	271403	122,569	92,455	2,568,860	20.00	11.94	40.31	9.5	11.7	660	676	20.63	21.64	0.02
S316	58001	224,236	169,144	1,642,425	20.00	6.36	68.22	4.8	8.5	740	770	23.13	24.98	0.02
S35	17904	1,076,215	610,888	2,276,676	7.94	5.94	25.25	10.5	11.7	10,317	10,460	161.20	165.66	0.12
S35	17906	846,243	438,518	2,276,676	11.85	8.48	28.37	11.8	13.4	6,150	6,262	96.09	99.60	0.07
S35	17907	846,243	438,518	2,276,676	15.25	10.10	33.77	16.4	19.1	3,430	3,542	107.19	114.20	0.08
S35	17908	846,243	438,518	2,276,676	20.00	7.39	63.07	6.4	10.2	2,638	2,750	82.44	89.45	0.06
S35	17909	822,772	438,518	2,276,676	18.12	11.40	37.07	15.3	18.2	3,100	3,209	96.88	103.70	0.07
S35	17910	822,772	438,518	1,795,577	8.02	6.03	24.84	10.0	11.1	8,500	8,609	132.81	136.22	0.10
S35	18001	740,056	373,931	1,795,577	6.49	5.23	19.41	13.1	14.2	7,964	8,062	248.88	255.01	0.18
S60	24101	230,956	172,371	1,952,424	16.05	13.71	14.59	10.8	11.4	4,260	4,291	133.13	135.04	0.10
S60	24102	230,956	172,371	2,276,676	15.73	13.75	12.55	8.7	9.1	6,325	6,356	98.83	99.79	0.07
S60	24103	230,956	172,371	2,276,676	20.00	14.53	27.33	3.6	4.1	5,800	5,831	90.63	91.58	0.07
S60	24104	230,956	172,371	2,276,676	20.00	13.56	32.22	6.9	8.1	2,400	2,431	75.00	76.91	0.05
US59	8905	3,227,688	1,589,427	2,112,832	2.78	2.01	27.63	21.1	23.5	13,600	14,028	212.50	225.88	0.10
US59	8904	3,227,688	1,589,427	2,112,832	2.78	2.01	27.66	21.4	23.9	13,400	13,828	209.38	222.75	0.10
US59	8903	3,227,688	1,589,427	2,112,832	2.39	1.80	24.70	21.8	23.9	15,350	15,778	239.84	253.22	0.12
US59	8901	3,227,688	1,589,427	5,841,189	11.03	7.13	35.42	13.6	16.0	14,767	15,195	230.73	244.11	0.11
US59	8804	2,829,384	1,293,217	5,841,189	11.42	7.63	33.23	15.0	17.4	12,867	13,242	201.05	212.77	0.10
US87	14306	141,521	104,557	5,841,189	20.00	16.90	15.51	9.2	9.8	2,850	2,869	89.06	90.24	0.04
US87	14307	141,521	104,557	5,841,189	20.00	15.29	23.53	9.2	10.2	1,700	1,719	53.13	54.30	0.02
US87	14308	141,521	104,557	8,872,292	20.00	18.40	7.99	9.2	9.5	6,020	6,039	188.13	189.30	0.09
US87	14309	141,521	104,557	8,872,292	20.00	18.46	7.72	10.1	10.4	5,667	5,686	177.09	178.27	0.08
US87	14310	141,521	104,557	5,009,267	19.39	18.48	4.70	11.8	12.0	8,280	8,299	258.75	259.92	0.12
US87	14401	141,521	104,557	5,009,267	20.00	17.98	10.08	6.7	7.0	6,363	6,382	198.84	200.02	0.09
US87	14403	141,521	104,557	2,276,676	20.00	17.64	11.79	7.5	7.9	4,800	4,819	150.00	151.17	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	14,146	7,420	3,436,383	20.00	19.68	1.61	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	16,341	8,571	3,074,361	20.00	19.19	4.04	6.7	6.8	2,000	2,002	62.50	62.64	0.04
S35	18003	44,033	12,817	1,791,737	15.08	14.59	3.23	14.0	14.2	3,200	3,206	100.00	100.36	0.07
S35	18004	44,033	12,817	1,791,737	6.71	6.61	1.46	9.5	9.6	10,592	10,598	331.00	331.36	0.24
S35	18005	44,033	12,817	1,791,737	7.71	7.58	1.68	9.9	10.0	8,867	8,873	277.09	277.46	0.20
S358	61701	2,737,588	1,273,813	2,810,157	5.12	3.54	30.76	4.3	5.1	48,638	49,001	506.65	514.21	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
S361	18010	30,487	15,990	1,470,362	9.81	9.63	1.80	10.3	10.4	5,500	5,504	171.88	172.13	0.12
S44	10201	2,737,588	1,273,813	1,316,451	8.73	3.32	62.03	7.4	11.6	7,700	8,063	120.31	131.66	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,224,812	575,522	2,129,917	4.02	3.33	17.21	19.9	21.2	10,043	10,205	156.92	162.00	0.07
US77	37103	1,224,812	575,522	2,129,917	20.00	5.79	71.06	18.8	31.2	900	1,062	14.06	19.14	0.01
US77	37104	2,829,203	1,293,036	2,483,647	6.83	4.02	41.16	18.8	22.8	7,300	7,675	114.06	125.79	0.06
US77	37203	2,823,040	1,289,863	2,483,647	15.17	5.95	60.80	7.8	12.0	7,933	8,307	123.95	135.65	0.06
US77	37201	2,823,040	1,289,863	2,483,647	4.38	3.03	30.93	16.2	18.5	13,200	13,574	206.25	217.95	0.10
US77	37301	2,823,040	1,289,863	1,167,359	1.42	1.08	23.56	16.0	17.6	19,475	19,849	304.30	316.00	0.14
US77	10202	85,452	16,049	1,167,359	1.52	1.51	0.99	20.7	20.8	13,975	13,986	218.36	218.71	0.10
US77	10203	85,452	16,049	1,167,359	1.33	1.32	0.87	20.4	20.4	16,300	16,311	254.69	255.04	0.12
US77	10204	85,452	16,049	2,483,647	3.34	3.30	1.02	22.7	22.8	12,386	12,397	193.53	193.89	0.09
US77	32701	85,452	16,049	2,483,647	4.78	4.71	1.46	28.9	29.0	6,800	6,811	106.25	106.60	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
I10	73902	2,078,654	1,214,231	4,790,983	2.67	2.42	9.36	26.5	27.3	26,000	26,276	406.25	414.87	0.19
I10	73901	2,078,654	1,214,231	4,790,983	2.55	2.32	8.98	28.9	29.7	25,000	25,276	390.63	399.24	0.18
I10	50803	2,078,654	1,214,231	4,790,983	2.56	2.33	9.01	26.2	26.9	27,500	27,776	429.69	438.30	0.20
I10	50802	2,078,654	1,214,231	4,790,983	2.56	2.33	9.00	23.8	24.4	30,333	30,609	473.95	482.57	0.22
US90	2807	140,386	115,788	1,436,461	2.65	2.59	2.27	8.1	8.2	25,333	25,352	395.83	396.41	0.18
US90	2806	140,386	115,788	1,436,461	6.02	5.71	5.02	12.7	12.9	7,122	7,141	111.28	111.86	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM106	142503	42,986	16,049	1,673,506	20.00	19.12	4.42	10.9	11.1	2,900	2,906	90.63	90.98	0.06
FM2925	63003	42,986	16,049	1,673,506	20.00	15.11	24.43	7.7	8.6	587	593	18.34	18.70	0.01

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 360-380 / West Galveston Bay
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

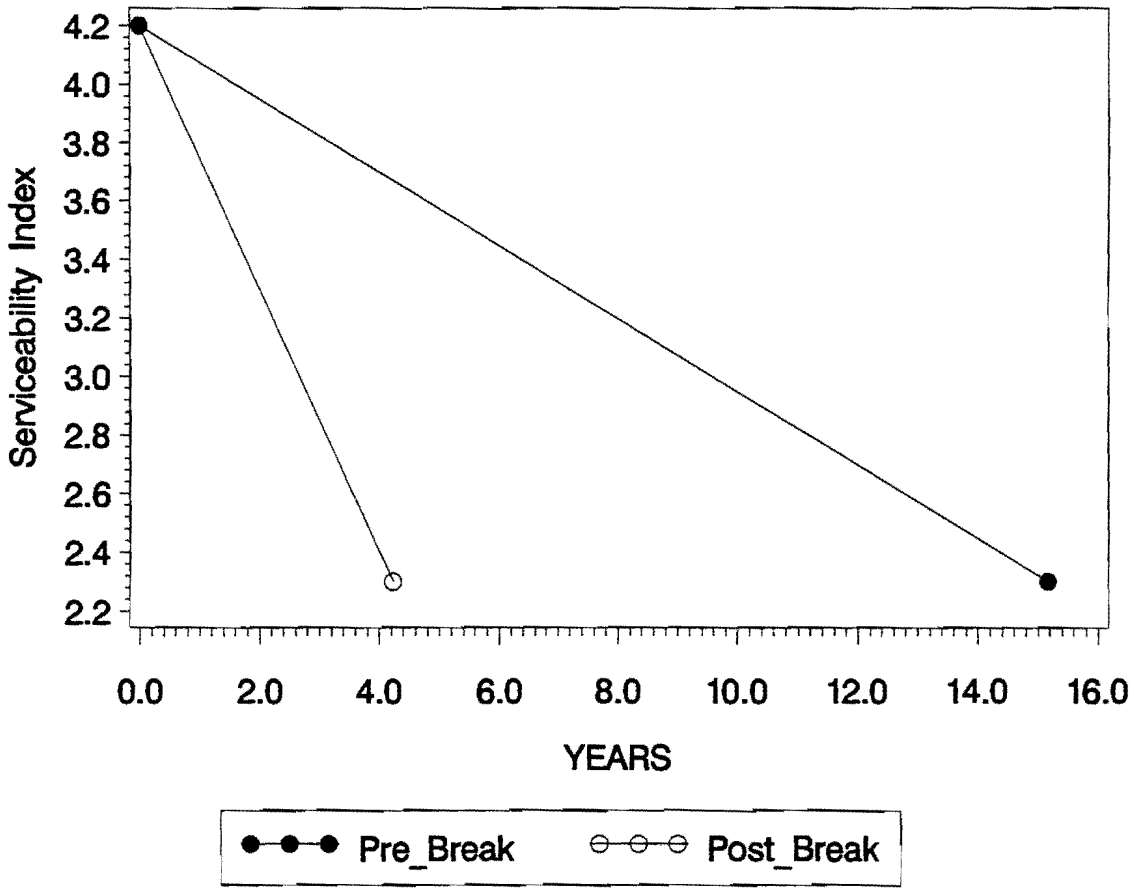
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM508	34204	42,986	16,049	1,673,506	20.00	18.14	9.30	6.6	6.8	2,160	2,166	67.50	67.86	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	85,452	16,049	5,006,733	9.84	9.70	1.49	29.6	29.7	6,500	6,511	101.56	101.92	0.05
US77	32703	85,452	16,049	5,006,733	10.24	10.08	1.55	30.3	30.4	6,100	6,111	95.31	95.67	0.04
US77	32704	85,452	16,049	5,006,733	10.38	10.21	1.57	30.4	30.5	6,000	6,011	93.75	94.10	0.04
US77	32705	85,452	16,049	5,006,733	9.39	9.26	1.42	30.1	30.2	6,700	6,711	104.69	105.04	0.05
US77	32710	85,452	16,049	1,951,437	3.48	3.43	1.35	25.6	25.7	8,287	8,298	129.48	129.84	0.06
US77	32708	85,452	16,049	1,951,437	13.66	12.96	5.11	5.4	5.5	10,000	10,011	104.17	104.40	0.05
US77	3907	85,452	16,049	1,951,437	1.14	1.13	0.45	23.2	23.2	27,920	27,931	436.25	436.60	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX E

Freeport Break Range (393-394)

PAVEMENT LIFETIME

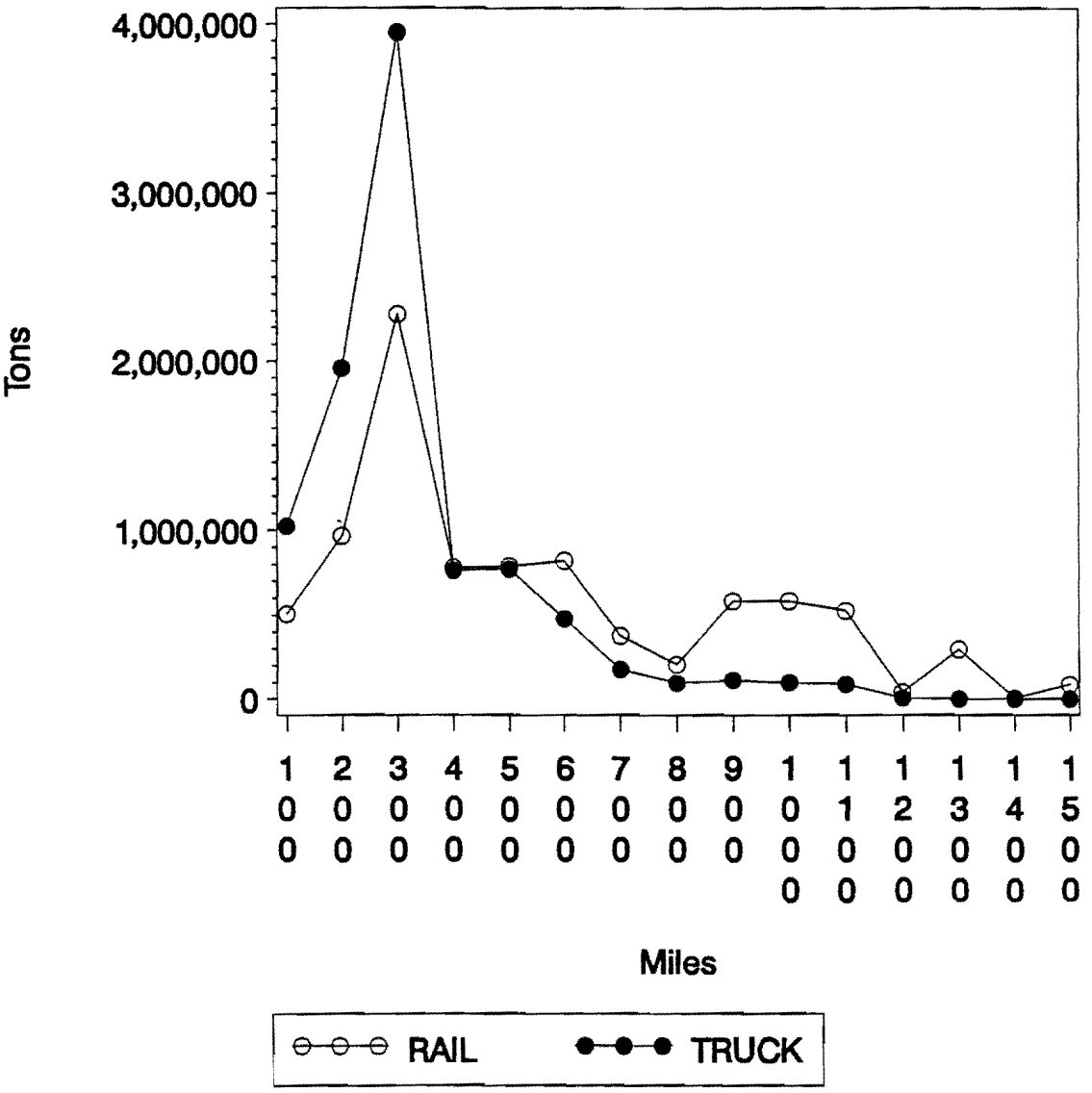
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 393 – 394 / Freeport
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

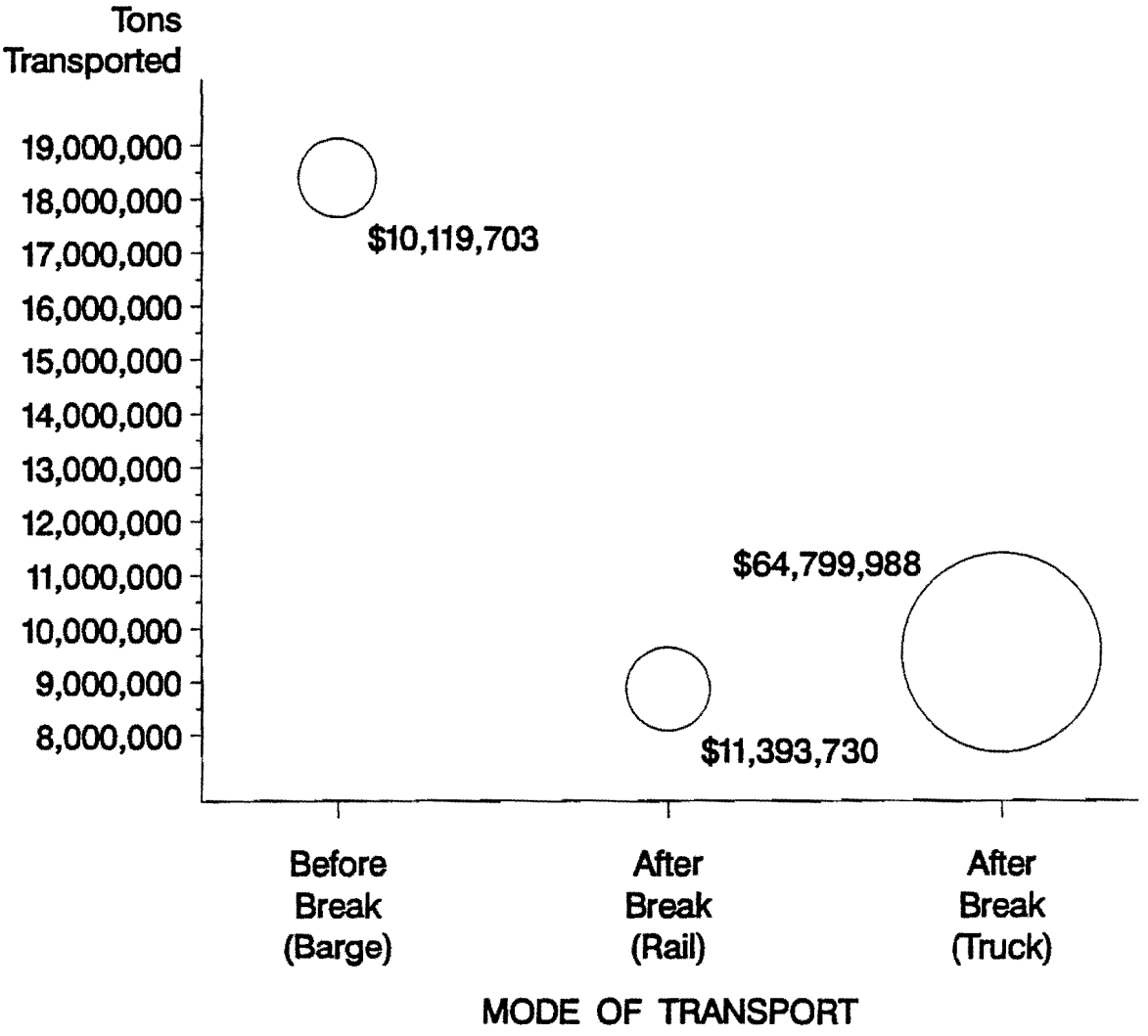
AS A FUNCTION OF DISTANCE

BREAK POINT 393 – 394 / Freeport



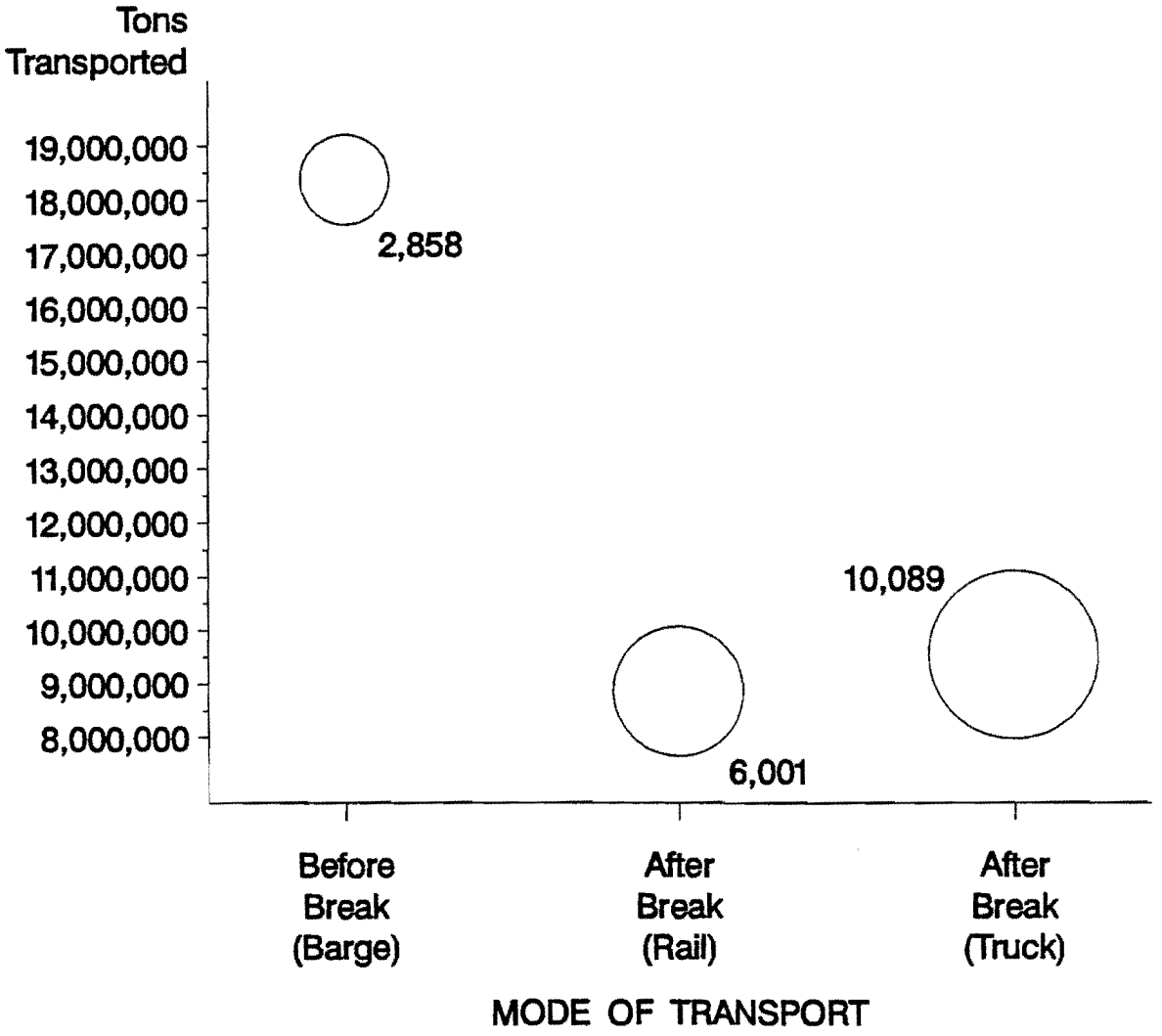
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 393–394 / Freeport



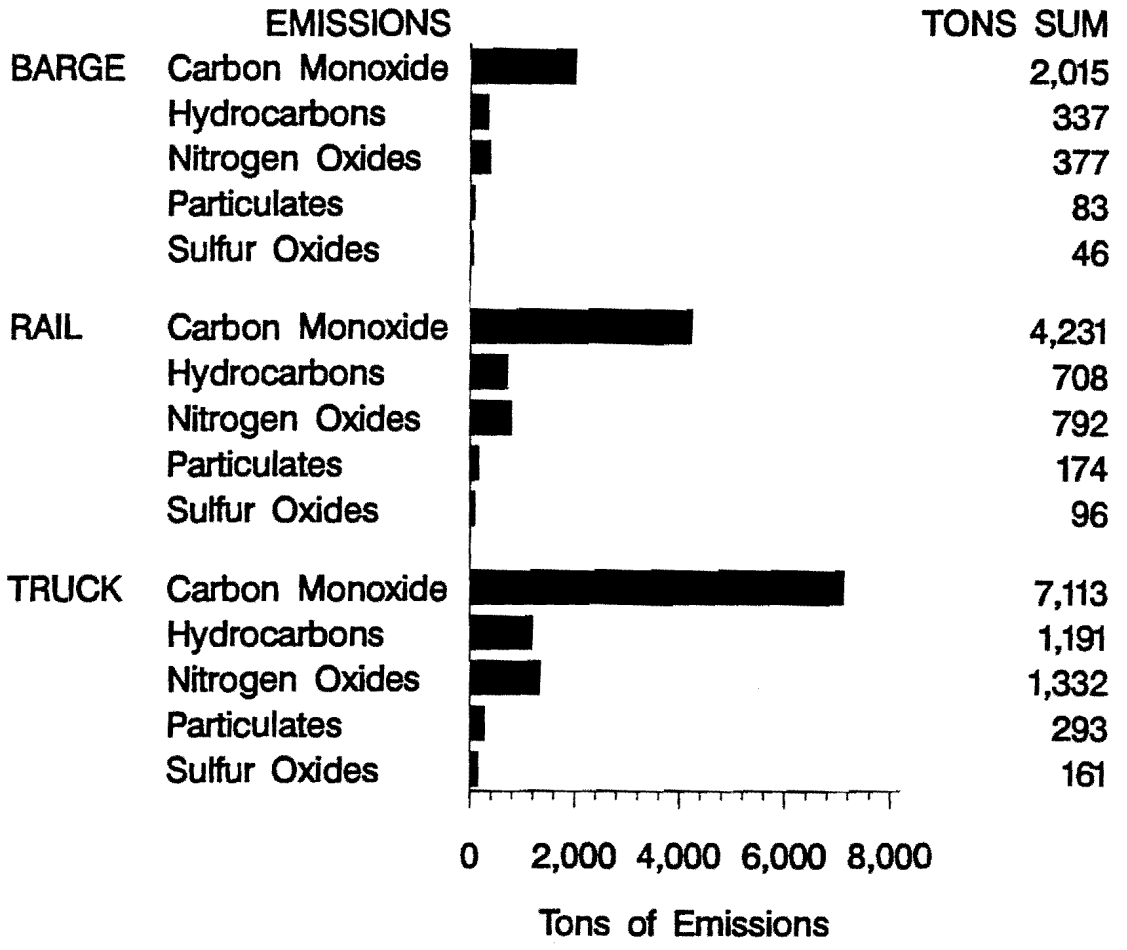
EMISSIONS (Tons)

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 393–394 / Freeport



EMISSIONS (Tons)

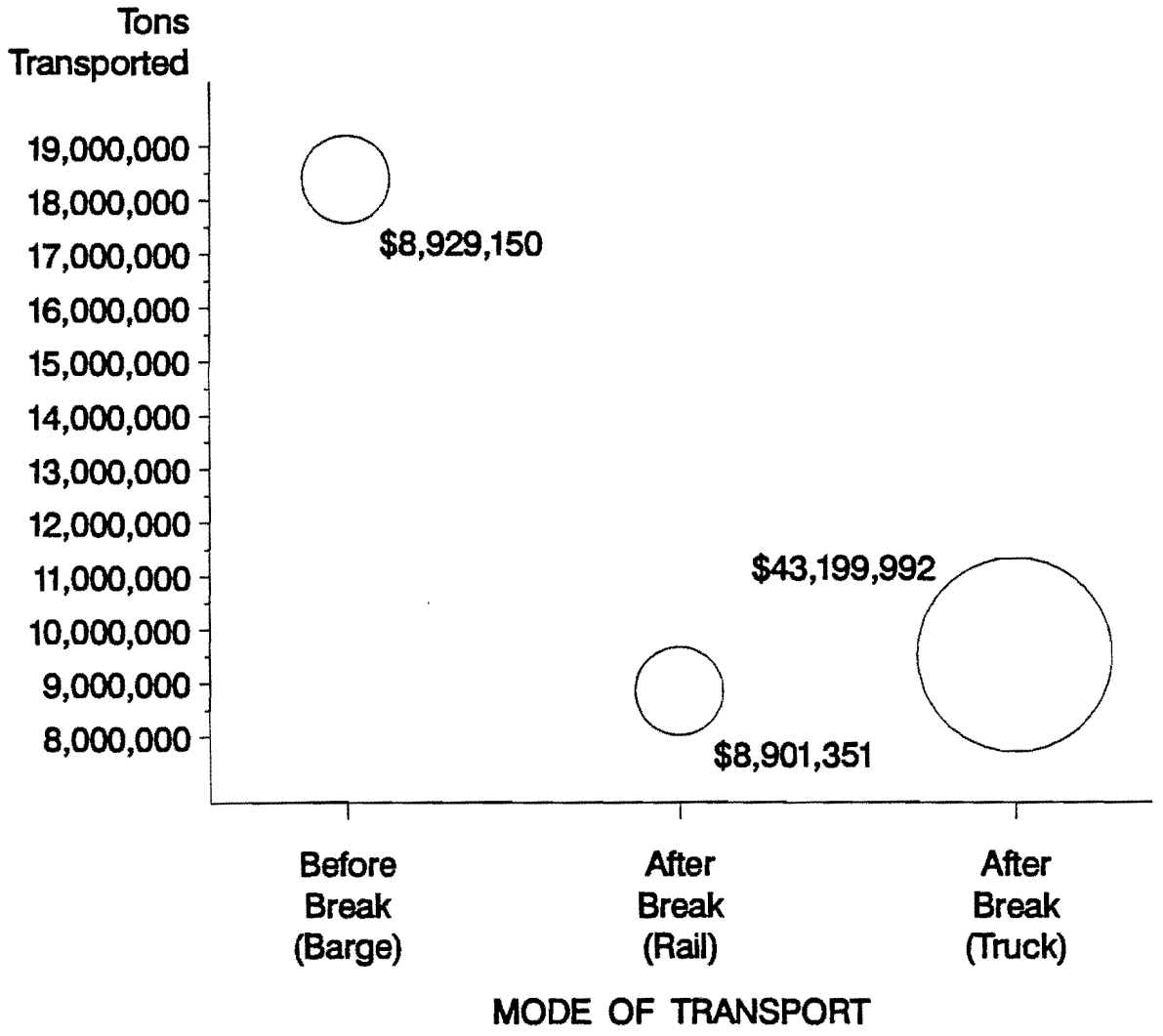
LOW END OF TON–MILE EFFICIENCY
BREAK POINT 393–394 / Freeport



Note: Barge emissions are pre–break
Rail & Truck emissions are post–break

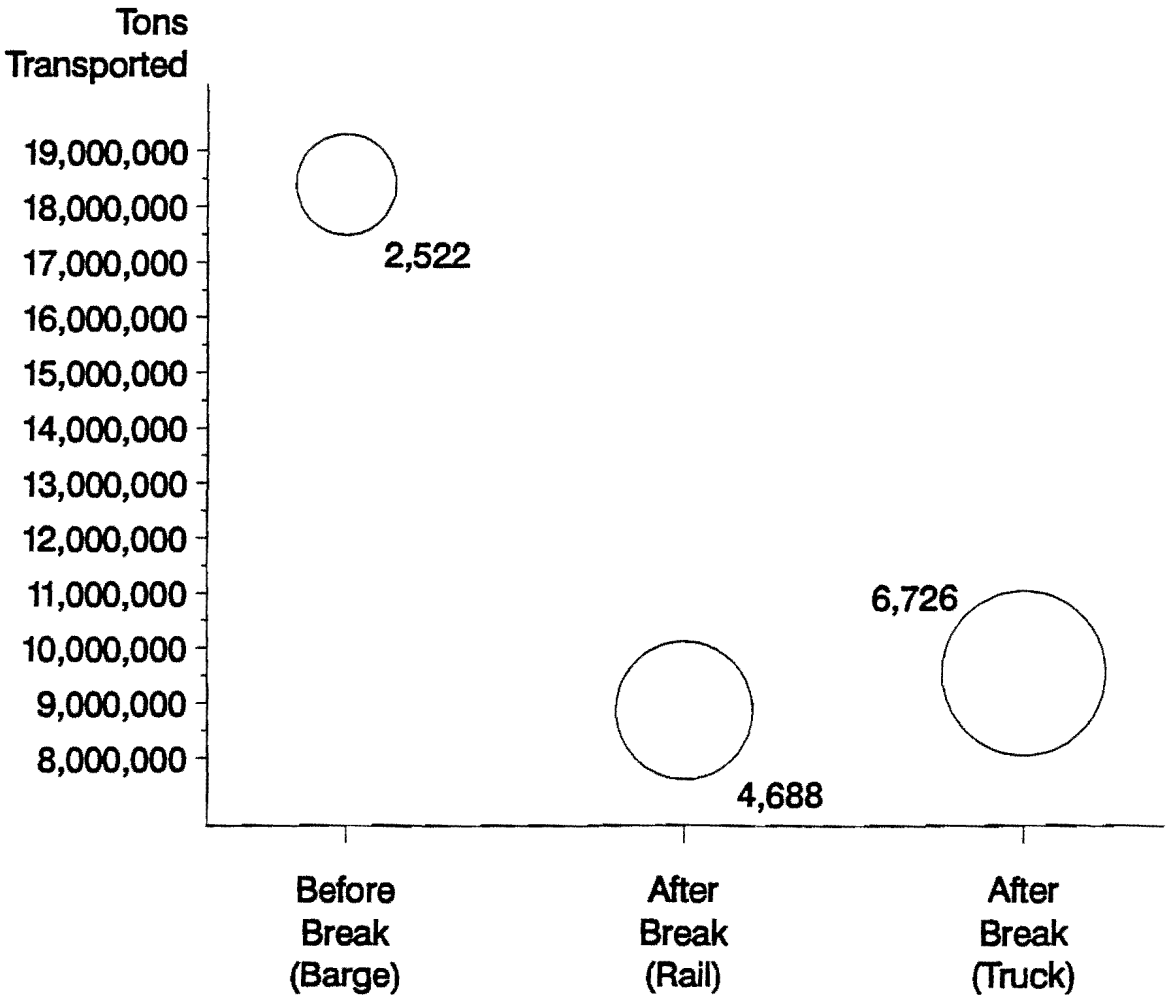
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 393–394 / Freeport



EMISSIONS (Tons)

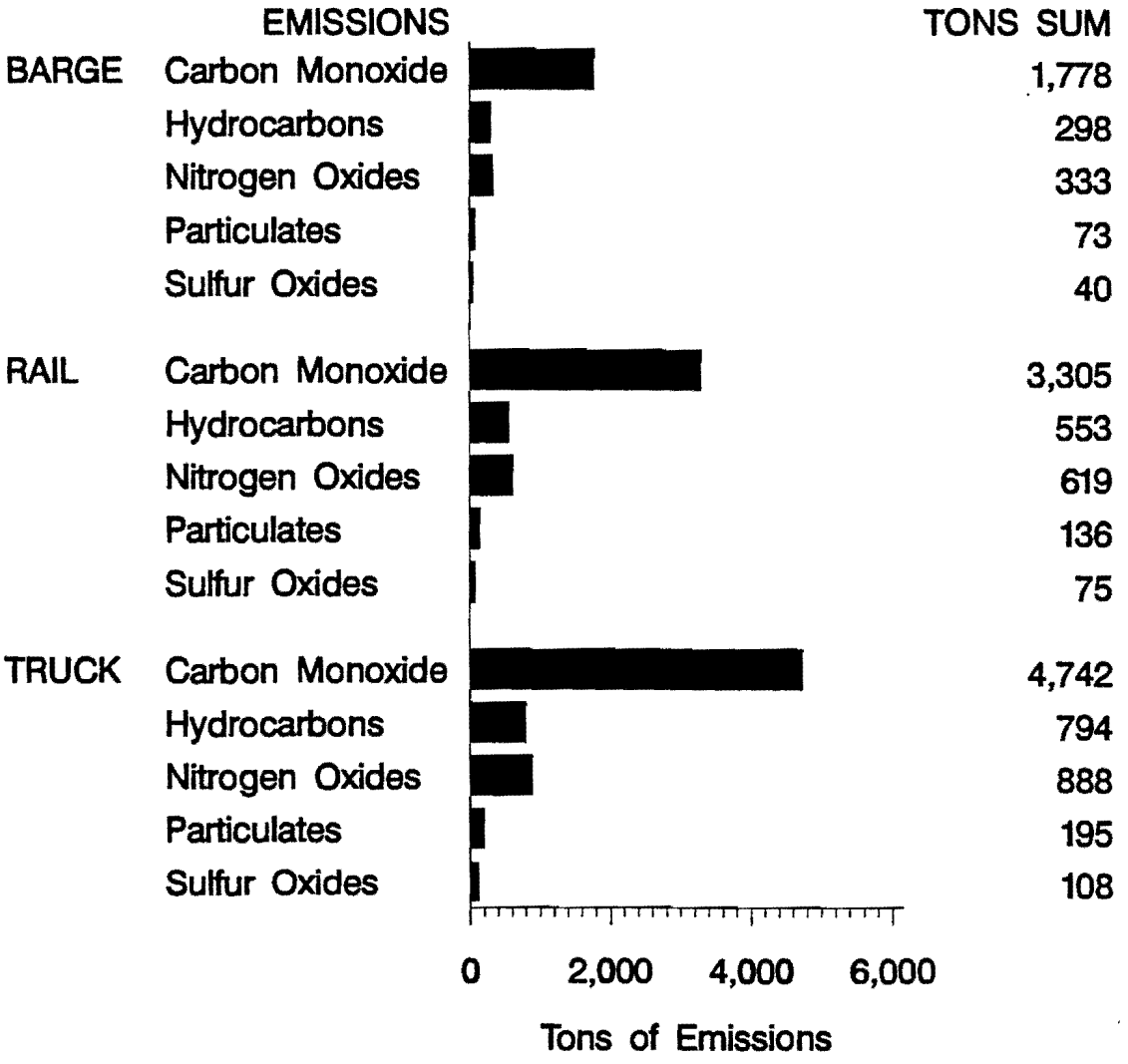
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 393–394 / Freeport



EMISSIONS (Tons)

HIGH END OF TON – MILE EFFICIENCY

BREAK POINT 393 – 394 / Freeport



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 393-394 / Freeport

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	400	524,054	338,096	533,093	1,057,147	4,732,631	574,219	595,800	4,711,050	736.87	302.45	168.28	871.05	5.02
1	450	963	.	1,268	2,231	7,694	1,485	1,275	7,904	1.20	0.78	0.36	1.62	0.01
1	470	116,950	58,298	121,717	238,667	1,231,165	135,568	147,321	1,219,412	191.69	71.41	41.61	221.49	1.31
1	480	302	302	308	610	3,418	368	404	3,382	0.53	0.19	0.11	0.61	0.00
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	400	41,836	35,319	20,666	62,502	137,437	7,147	12,009	132,575	21.40	3.76	3.39	21.77	0.15
280	410	5,134	.	2,536	7,670	17,568	914	1,535	16,947	2.74	0.48	0.43	2.78	0.02
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	400	60,034	57,612	29,656	89,690	184,073	9,572	16,084	177,562	28.66	5.04	4.54	29.16	0.20
290	470	1,791	.	884	2,675	8,921	464	780	8,606	1.39	0.24	0.22	1.41	0.01
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	400	366,452	352,862	181,022	547,474	501,604	26,085	43,828	483,861	78.10	13.74	12.38	79.46	0.53
350	410	4,938	4,938	2,440	7,378	7,436	387	650	7,173	1.16	0.20	0.18	1.18	0.01
350	450	152,560	117,520	75,362	227,922	396,768	20,633	34,668	382,734	61.78	10.87	9.79	62.85	0.42
350	470	100,509	98,951	49,650	150,159	330,187	17,171	28,851	318,507	51.41	9.04	8.15	52.31	0.35
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	400	194,200	28,009	95,932	290,132	239,998	12,481	20,970	231,509	37.37	6.57	5.92	38.02	0.25
360	450	59,430	48,174	29,357	88,787	146,426	7,615	12,794	141,247	22.80	4.01	3.61	23.20	0.16
360	460	4,114	.	2,032	6,146	10,924	568	955	10,538	1.70	0.30	0.27	1.73	0.01
360	470	2,107	2,107	1,041	3,148	6,634	345	580	6,399	1.03	0.18	0.16	1.05	0.01
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	400	10,151	10,151	5,014	15,165	6,947	361	607	6,701	1.08	0.19	0.17	1.10	0.01
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	1	461,910	430,241	709,591	1,171,501	4,784,088	1,149,476	918,397	5,015,166	744.89	605.45	259.39	1,090.94	5.08
400	280	39,123	39,123	19,326	58,449	137,996	7,176	12,058	133,115	21.49	3.78	3.41	21.86	0.15
400	290	21,394	20,430	10,568	31,962	65,596	3,411	5,732	63,276	10.21	1.80	1.62	10.39	0.07
400	350	209,371	163,238	103,427	312,798	286,590	14,904	25,041	276,453	44.62	7.85	7.07	45.40	0.30
400	360	26,365	15,074	13,024	39,389	32,480	1,689	2,838	31,331	5.06	0.89	0.80	5.15	0.03

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 393-394 / Freeport

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
400	400	15,457	57	7,635	23,092	3,385	176	296	3,265	0.53	0.09	0.08	0.54	0.00
410	1	117,043	2,063	127,193	244,236	1,326,485	164,825	169,150	1,322,160	206.53	86.82	47.78	245.58	1.41
410	280	862	862	426	1,288	2,950	153	258	2,846	0.46	0.08	0.07	0.47	0.00
410	350	95,370	2,902	47,111	142,481	143,597	7,468	12,547	138,518	22.36	3.93	3.54	22.75	0.15
410	360	36,869	935	18,213	55,082	50,467	2,624	4,410	48,682	7.86	1.38	1.25	7.99	0.05
410	380	5,691	5,691	2,812	8,503	4,674	243	408	4,509	0.73	0.13	0.12	0.74	0.00
450	1	676	.	692	1,368	6,352	684	751	6,284	0.99	0.36	0.21	1.14	0.01
450	350	170,372	120,664	84,161	254,533	443,093	23,043	38,716	427,420	68.99	12.14	10.94	70.19	0.47
450	360	926	926	458	1,384	2,282	119	199	2,202	0.36	0.06	0.06	0.36	0.00
460	360	35,005	.	17,292	52,297	92,956	4,834	8,122	89,668	14.47	2.55	2.29	14.73	0.10
470	1	118,616	115,662	553,954	672,570	2,506,983	1,350,869	897,105	2,960,747	390.34	711.53	253.38	848.48	2.66
470	290	25,226	.	12,462	37,688	124,309	6,465	10,862	119,912	19.36	3.40	3.07	19.69	0.13
470	350	6,586	6,586	3,254	9,840	21,637	1,125	1,891	20,872	3.37	0.59	0.53	3.43	0.02
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
480	400	4	.	2	6	9	0	1	9	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		9,535,330	5,265,745	8,857,299	18,392,629	64,799,988	11,393,730	10,119,703	66,074,014	10,089.40	6,001.28	2,858.24	13,232.44	68.77

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 393-394 / Freeport

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	400	524,054	338,096	533,093	1,057,147	3,155,087	448,609	525,706	3,077,990	491.25	236.29	148.48	579.06	5.02
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	400	41,836	35,319	20,666	62,502	91,624	5,584	10,596	86,612	14.27	2.94	2.99	14.21	0.15
280	410	5,134	.	2,536	7,670	11,712	714	1,354	11,072	1.82	0.38	0.38	1.82	0.02
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	400	60,034	57,612	29,656	89,690	122,715	7,479	14,191	116,002	19.11	3.94	4.01	19.04	0.20
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	400	366,452	352,862	181,022	547,474	334,402	20,379	38,672	316,110	52.07	10.73	10.92	51.88	0.53
350	410	4,938	4,938	2,440	7,378	4,957	302	573	4,686	0.77	0.16	0.16	0.77	0.01
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	400	194,200	28,009	95,932	290,132	159,999	9,751	18,503	151,246	24.91	5.14	5.23	24.82	0.25
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	400	10,151	10,151	5,014	15,165	4,631	282	536	4,378	0.72	0.15	0.15	0.72	0.01
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	1	461,910	430,241	709,591	1,171,501	3,189,392	898,028	810,350	3,277,069	496.59	473.01	228.88	740.72	5.08
400	280	39,123	39,123	19,326	58,449	91,998	5,607	10,639	86,965	14.32	2.95	3.00	14.27	0.15
400	290	21,394	20,430	10,568	31,962	43,731	2,665	5,057	41,339	6.81	1.40	1.43	6.78	0.07
400	350	209,371	163,238	103,427	312,798	191,060	11,644	22,095	180,608	29.75	6.13	6.24	29.64	0.30
400	360	26,365	15,074	13,024	39,389	21,653	1,320	2,504	20,469	3.37	0.70	0.71	3.36	0.03

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 393-394 / Freeport

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
400	400	15,457	57	7,635	23,092	2,257	138	261	2,133	0.35	0.07	0.07	0.35	0.00
410	1	117,043	2,063	127,193	244,236	884,323	128,770	149,250	863,843	137.69	67.83	42.15	163.36	1.41
410	280	862	862	426	1,288	1,967	120	227	1,859	0.31	0.06	0.06	0.31	0.00
410	350	95,370	2,902	47,111	142,481	95,732	5,834	11,071	90,495	14.91	3.07	3.13	14.85	0.15
410	360	36,869	935	18,213	55,082	33,645	2,050	3,891	31,804	5.24	1.08	1.10	5.22	0.05
410	380	5,691	5,691	2,812	8,503	3,116	190	360	2,946	0.49	0.10	0.10	0.48	0.00
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	4	.	2	6	6	0	1	6	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		9,535,330	5,265,745	8,857,299	18,392,629	43,199,992	8,901,351	8,929,150	43,172,193	6,726.27	4,688.50	2,521.97	8,892.79	68.77

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM1495	58701	1,125,758	872,101	2,342,909	20.00	4.85	75.77	3.4	7.2	3,600	3,749	112.50	121.83	0.09
FM1764	160701	151,360	74,303	4,149,703	14.52	13.86	4.55	4.5	4.6	24,000	24,020	375.00	375.63	0.27
FM1764	160702	100,907	49,535	4,149,703	20.00	19.09	4.55	3.0	3.1	24,000	24,013	750.00	750.84	0.54
FM2918	293901	260,217	11,701	4,334,935	20.00	5.60	71.98	7.0	13.0	500	535	15.63	17.78	0.01
FM360	52706	1,139,877	771,335	5,014,448	20.00	5.19	74.05	9.2	17.5	1,500	1,651	46.88	56.32	0.04
FM523	100301	228,840	173,481	1,867,826	20.00	14.55	27.23	3.2	3.6	6,625	6,655	207.03	208.93	0.15
I45	11004	141,377	69,402	12,973,790	6.95	6.90	0.68	11.4	11.4	62,000	62,019	968.75	969.34	0.44
I45	11005	124,458	61,097	5,528,218	2.18	2.17	0.44	10.0	10.0	95,667	95,684	1494.8	1495.3	0.68
I45	67508	215,718	105,897	15,422,523	12.91	12.70	1.60	17.4	17.5	26,000	26,029	406.25	407.14	0.19
S134	37602	785,801	417,645	7,009,427	20.00	15.89	20.54	6.5	7.1	15,900	16,004	496.88	503.39	0.36
S146	38905	745,688	396,281	2,496,949	9.75	7.72	20.75	6.2	6.8	15,700	15,799	245.31	248.40	0.18
S146	38906	908,939	483,228	2,496,949	10.65	7.89	25.85	7.5	8.5	11,786	11,907	184.16	187.92	0.13
S146	38912	580,713	308,415	2,496,949	9.98	8.26	17.27	4.8	5.2	19,700	19,777	307.81	310.22	0.22
S197	38911	182,052	89,370	3,294,557	20.00	16.72	16.39	5.4	5.8	5,833	5,857	182.28	183.79	0.13
S288	59804	1,332,877	1,003,192	2,655,275	6.85	5.27	23.06	12.2	13.4	12,600	12,777	196.88	202.40	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	581,851	441,096	2,057,202	11.46	8.94	22.04	8.1	8.9	8,767	8,844	273.97	278.79	0.20
S341	62801	201,813	99,071	4,149,703	20.00	16.34	18.32	6.0	6.5	5,100	5,127	79.69	80.52	0.06
S348	68601	376,718	184,932	7,909,001	19.32	17.88	7.42	11.2	11.5	14,500	14,550	453.13	456.25	0.33
S35	17801	2,858,770	1,738,517	1,764,574	5.81	3.15	45.86	5.3	7.0	21,500	21,879	335.94	347.79	0.25
S35	17802	2,858,770	1,738,517	2,342,909	10.26	4.83	52.97	6.3	8.8	13,773	14,152	215.20	227.05	0.16
S35	17803	2,858,770	1,738,517	2,342,909	13.82	5.49	60.27	7.2	11.0	8,900	9,279	139.06	150.91	0.11
S35	17901	1,899,996	1,026,850	2,342,909	10.29	5.88	42.87	10.4	13.0	8,300	8,552	129.69	137.56	0.10
S35	17902	1,899,996	1,026,850	2,342,909	10.46	5.93	43.27	10.3	13.0	8,222	8,474	256.94	272.69	0.19
S35	17903	1,799,688	1,019,009	2,342,909	13.90	7.09	48.99	10.5	13.9	6,067	6,306	189.59	204.51	0.15
S36	18705	1,246,181	780,038	2,535,398	13.80	8.57	37.89	15.1	18.0	4,600	4,765	143.75	154.08	0.11
S36	18801	1,246,181	780,038	2,535,398	11.10	7.45	32.92	8.7	10.2	9,900	10,065	309.38	319.70	0.23
S36	18802	1,246,181	780,038	2,535,398	19.72	10.53	46.58	10.2	13.2	4,750	4,915	148.44	158.77	0.11
S36	18803	1,246,181	780,038	3,516,385	20.00	11.73	41.33	10.2	12.6	6,013	6,178	187.91	198.24	0.14
S36	18804	1,246,181	780,038	3,516,385	16.53	10.94	33.80	7.4	8.7	11,367	11,532	355.22	365.55	0.26
S36	18805	1,246,181	780,038	3,516,385	20.00	10.60	47.02	8.1	10.5	6,000	6,165	187.50	197.83	0.14
S36	18806	1,246,181	780,038	3,516,385	20.00	10.98	45.08	7.7	9.9	6,820	6,985	213.13	223.45	0.16
S8	325603	1,999,962	1,249,703	4,149,703	15.04	9.11	39.47	4.0	5.0	26,067	26,332	271.53	277.06	0.20
S8	325604	1,999,962	1,249,703	4,149,703	15.68	9.34	40.48	4.0	5.0	25,000	25,265	260.42	265.94	0.19
S87	37606	1,012,851	497,211	6,504,983	20.00	11.44	42.81	9.2	11.6	5,000	5,134	156.25	164.65	0.12
US59	17707	6,520,996	3,420,381	4,149,703	2.37	1.78	25.12	6.2	7.0	106,000	106,865	1656.3	1683.3	0.77
US75	5104	1,012,851	497,211	6,011,120	10.14	8.79	13.32	6.2	6.6	36,000	36,134	562.50	566.70	0.26
US90	2801	233,977	192,980	3,715,330	12.14	11.36	6.43	7.1	7.2	16,375	16,406	255.86	256.83	0.12
US90	2802	233,977	192,980	3,715,330	20.00	17.82	10.91	7.3	7.6	8,900	8,931	139.06	140.03	0.06
US90A	2710	47,185	23,163	3,715,330	13.96	13.74	1.57	3.8	3.8	26,480	26,486	413.75	413.95	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	384,927	287,284	1,252,801	20.00	5.63	71.84	7.9	14.5	660	711	20.63	23.82	0.02
FM2717	271401	169,448	127,815	2,094,784	20.00	4.88	75.58	7.9	15.8	240	262	7.50	8.90	0.01
FM2760	271403	204,283	154,091	2,568,860	20.00	9.41	52.96	9.5	13.1	660	687	20.63	22.32	0.02
S316	58001	373,731	281,906	1,642,425	20.00	4.37	78.15	4.8	10.8	740	790	23.13	26.22	0.02
S35	17904	1,793,692	1,018,147	2,276,676	7.94	5.08	36.02	10.5	12.5	10,317	10,555	161.20	168.64	0.12
S35	17906	1,410,405	730,863	2,276,676	11.85	7.14	39.76	11.8	14.4	6,150	6,337	96.09	101.94	0.07
S35	17907	1,410,405	730,863	2,276,676	15.25	8.24	45.94	16.4	20.8	3,430	3,617	107.19	118.88	0.08
S35	17908	1,410,405	730,863	2,276,676	20.00	5.20	74.00	6.4	12.6	2,638	2,825	82.44	94.13	0.07
S35	17909	1,371,286	730,863	2,276,676	18.12	9.14	49.54	15.3	20.0	3,100	3,282	96.88	108.24	0.08
S35	17910	1,371,286	730,863	1,795,577	8.02	5.17	35.52	10.0	11.8	8,500	8,682	132.81	138.50	0.10
S35	18001	1,233,427	623,218	1,795,577	6.49	4.63	28.64	13.1	14.9	7,964	8,128	248.88	259.10	0.19
S60	24101	384,927	287,284	1,952,424	16.05	12.50	22.16	10.8	11.8	4,260	4,311	133.13	136.32	0.10
S60	24102	384,927	287,284	2,276,676	15.73	12.69	19.30	8.7	9.4	6,325	6,376	98.83	100.42	0.07
S60	24103	384,927	287,284	2,276,676	20.00	12.29	38.53	3.6	4.4	5,800	5,851	90.63	92.22	0.07
S60	24104	384,927	287,284	2,276,676	20.00	11.16	44.21	6.9	8.8	2,400	2,451	75.00	78.19	0.06
US59	8905	5,379,479	2,649,046	2,112,832	2.78	1.70	38.88	21.1	25.1	13,600	14,313	212.50	234.80	0.11
US59	8904	5,379,479	2,649,046	2,112,832	2.78	1.70	38.92	21.4	25.4	13,400	14,113	209.38	231.67	0.11
US59	8903	5,379,479	2,649,046	2,112,832	2.39	1.54	35.34	21.8	25.3	15,350	16,063	239.84	262.14	0.12
US59	8901	5,379,479	2,649,046	5,841,189	11.03	5.76	47.76	13.6	17.5	14,767	15,480	230.73	253.03	0.12
US59	8804	4,715,640	2,155,362	5,841,189	11.42	6.24	45.33	15.0	19.0	12,867	13,492	201.05	220.59	0.10
US87	14306	235,868	174,261	5,841,189	20.00	15.32	23.42	9.2	10.2	2,850	2,881	89.06	91.02	0.04
US87	14307	235,868	174,261	5,841,189	20.00	13.22	33.90	9.2	10.8	1,700	1,731	53.13	55.08	0.03
US87	14308	235,868	174,261	8,872,292	20.00	17.47	12.65	9.2	9.7	6,020	6,051	188.13	190.08	0.09
US87	14309	235,868	174,261	8,872,292	20.00	17.55	12.24	10.1	10.6	5,667	5,698	177.09	179.05	0.08
US87	14310	235,868	174,261	5,009,267	19.39	17.92	7.59	11.8	12.1	8,280	8,311	258.75	260.71	0.12
US87	14401	235,868	174,261	5,009,267	20.00	16.85	15.74	6.7	7.2	6,363	6,394	198.84	200.80	0.09
US87	14403	235,868	174,261	2,276,676	20.00	16.36	18.22	7.5	8.1	4,800	4,831	150.00	151.96	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	23,577	12,366	3,436,383	20.00	19.47	2.66	5.8	5.9	5,100	5,103	79.69	79.79	0.06
FM2725	275601	27,235	14,285	3,074,361	20.00	18.69	6.56	6.7	6.9	2,000	2,004	62.50	62.73	0.04
S35	18003	73,388	21,362	1,791,737	15.08	14.29	5.26	14.0	14.3	3,200	3,210	100.00	100.61	0.07
S35	18004	73,388	21,362	1,791,737	6.71	6.55	2.41	9.5	9.6	10,592	10,602	331.00	331.61	0.24
S35	18005	73,388	21,362	1,791,737	7.71	7.50	2.76	9.9	10.0	8,867	8,877	277.09	277.70	0.20
S358	61701	4,562,647	2,123,022	2,810,157	5.12	2.94	42.55	4.3	5.5	48,638	49,243	506.65	519.25	0.37
S361	18010	50,812	26,651	1,470,362	9.81	9.52	2.96	10.3	10.4	5,500	5,507	171.88	172.30	0.12

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport

DISTRICT=CORPUS CHRISTI DISTRICT (continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S44	10201	4,562,647	2,123,022	1,316,451	8.73	2.35	73.14	7.4	14.1	7,700	8,305	120.31	139.22	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,041,354	959,203	2,129,917	4.02	2.98	25.73	19.9	22.0	10,043	10,314	156.92	165.38	0.08
US77	37103	2,041,354	959,203	2,129,917	20.00	3.93	80.37	18.8	37.6	900	1,171	14.06	22.52	0.01
US77	37104	4,715,338	2,155,060	2,483,647	6.83	3.15	53.82	18.8	25.2	7,300	7,925	114.06	133.61	0.06
US77	37203	4,705,067	2,149,771	2,483,647	15.17	4.23	72.11	7.8	14.5	7,933	8,557	123.95	143.45	0.07
US77	37201	4,705,067	2,149,771	2,483,647	4.38	2.51	42.74	16.2	20.0	13,200	13,824	206.25	225.75	0.10
US77	37301	4,705,067	2,149,771	1,167,359	1.42	0.94	33.94	16.0	18.6	19,475	20,099	304.30	323.80	0.15
US77	10202	142,421	26,749	1,167,359	1.52	1.50	1.65	20.7	20.8	13,975	13,994	218.36	218.95	0.10
US77	10203	142,421	26,749	1,167,359	1.33	1.31	1.44	20.4	20.5	16,300	16,319	254.69	255.28	0.12
US77	10204	142,421	26,749	2,483,647	3.34	3.28	1.69	22.7	22.8	12,386	12,405	193.53	194.12	0.09
US77	32701	142,421	26,749	2,483,647	4.78	4.66	2.40	28.9	29.1	6,800	6,819	106.25	106.84	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	3,458,992	2,023,147	4,790,983	2.67	2.28	14.66	26.5	27.8	26,000	26,459	406.25	420.59	0.19
I10	73901	3,458,992	2,023,147	4,790,983	2.55	2.19	14.10	28.9	30.2	25,000	25,459	390.63	404.96	0.18
I10	50803	3,458,992	2,023,147	4,790,983	2.56	2.20	14.15	26.2	27.4	27,500	27,959	429.69	444.02	0.20
I10	50802	3,458,992	2,023,147	4,790,983	2.56	2.20	14.13	23.8	24.9	30,333	30,792	473.95	488.29	0.22
US90	2807	233,977	192,980	1,436,461	2.65	2.55	3.73	8.1	8.2	25,333	25,364	395.83	396.80	0.18
US90	2806	233,977	192,980	1,436,461	6.02	5.53	8.10	12.7	13.1	7,122	7,153	111.28	112.25	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	71,643	26,749	1,673,506	20.00	18.57	7.15	10.9	11.2	2,900	2,910	90.63	91.22	0.07
FM2925	63003	71,643	26,749	1,673,506	20.00	13.00	35.02	7.7	9.2	587	597	18.34	18.94	0.01
FM508	34204	71,643	26,749	1,673,506	20.00	17.08	14.59	6.6	7.0	2,160	2,170	67.50	68.09	0.05
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	142,421	26,749	5,006,733	9.84	9.60	2.46	29.6	29.8	6,500	6,519	101.56	102.15	0.05
US77	32703	142,421	26,749	5,006,733	10.24	9.98	2.55	30.3	30.5	6,100	6,119	95.31	95.90	0.04
US77	32704	142,421	26,749	5,006,733	10.38	10.11	2.59	30.4	30.6	6,000	6,019	93.75	94.34	0.04
US77	32705	142,421	26,749	5,006,733	9.39	9.17	2.35	30.1	30.3	6,700	6,719	104.69	105.28	0.05
US77	32710	142,421	26,749	1,951,437	3.48	3.40	2.23	25.6	25.8	8,287	8,306	129.48	130.07	0.06
US77	32708	142,421	26,749	1,951,437	13.66	12.54	8.23	5.4	5.6	10,000	10,019	104.17	104.56	0.05
US77	3907	142,421	26,749	1,951,437	1.14	1.13	0.74	23.2	23.3	27,920	27,939	436.25	436.84	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 393-394 / Freeport

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	400	314,432	202,858	319,856	634,288	2,839,579	344,531	357,480	2,826,630	442.12	181.47	100.97	522.63	3.01
1	450	578	.	761	1,339	4,617	891	765	4,742	0.72	0.47	0.22	0.97	0.00
1	470	70,170	34,979	73,030	143,200	738,699	81,341	88,392	731,647	115.02	42.84	24.97	132.89	0.78
1	480	181	181	185	366	2,051	221	243	2,029	0.32	0.12	0.07	0.37	0.00
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	400	25,101	21,191	12,400	37,501	82,462	4,288	7,205	79,545	12.84	2.26	2.04	13.06	0.09
280	410	3,080	.	1,522	4,602	10,541	548	921	10,168	1.64	0.29	0.26	1.67	0.01
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	400	36,020	34,567	17,794	53,814	110,444	5,743	9,650	106,537	17.20	3.03	2.73	17.50	0.12
290	470	1,074	.	531	1,605	5,353	278	468	5,163	0.83	0.15	0.13	0.85	0.01
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	400	219,871	211,717	108,613	328,484	300,962	15,651	26,297	290,316	46.86	8.24	7.43	47.68	0.32
350	410	2,963	2,963	1,464	4,427	4,461	232	390	4,304	0.69	0.12	0.11	0.71	0.00
350	450	91,536	70,512	45,217	136,753	238,061	12,380	20,801	229,640	37.07	6.52	5.88	37.71	0.25
350	470	60,305	59,371	29,790	90,095	198,112	10,303	17,310	191,104	30.85	5.43	4.89	31.38	0.21
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	400	116,520	16,805	57,559	174,079	143,999	7,488	12,582	138,905	22.42	3.94	3.55	22.81	0.15
360	450	35,658	28,904	17,614	53,272	87,856	4,569	7,677	84,748	13.68	2.41	2.17	13.92	0.09
360	460	2,468	.	1,219	3,688	6,555	341	573	6,323	1.02	0.18	0.16	1.04	0.01
360	470	1,264	1,264	625	1,889	3,980	207	348	3,839	0.62	0.11	0.10	0.63	0.00
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	400	6,090	6,090	3,009	9,099	4,168	217	364	4,021	0.65	0.11	0.10	0.66	0.00
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	1	277,146	258,145	425,754	702,901	2,870,453	689,685	551,038	3,009,100	446.93	363.27	155.64	654.56	3.05
400	280	23,474	23,474	11,596	35,069	82,798	4,306	7,235	79,869	12.89	2.27	2.04	13.12	0.09
400	290	12,836	12,258	6,341	19,177	39,358	2,047	3,439	37,966	6.13	1.08	0.97	6.23	0.04
400	350	125,623	97,943	62,056	187,679	171,954	8,942	15,025	165,872	26.77	4.71	4.24	27.24	0.18
400	360	15,819	9,045	7,814	23,633	19,488	1,013	1,703	18,799	3.03	0.53	0.48	3.09	0.02

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 393-394 / Freeport

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
400	400	9,274	34	4,581	13,855	2,031	106	177	1,959	0.32	0.06	0.05	0.32	0.00
410	1	70,226	1,238	76,316	146,542	795,891	98,895	101,490	793,296	123.92	52.09	28.67	147.35	0.84
410	280	517	517	256	773	1,770	92	155	1,708	0.28	0.05	0.04	0.28	0.00
410	350	57,222	1,741	28,267	85,489	86,158	4,481	7,528	83,111	13.41	2.36	2.13	13.65	0.09
410	360	22,121	561	10,928	33,049	30,280	1,575	2,646	29,209	4.71	0.83	0.75	4.80	0.03
410	380	3,415	3,415	1,687	5,102	2,805	146	245	2,705	0.44	0.08	0.07	0.44	0.00
450	1	406	.	415	821	3,811	410	451	3,770	0.59	0.22	0.13	0.68	0.00
450	350	102,223	72,398	50,497	152,720	265,856	13,826	23,230	256,452	41.39	7.28	6.56	42.12	0.28
450	360	556	556	275	830	1,369	71	120	1,321	0.21	0.04	0.03	0.22	0.00
460	360	21,003	.	10,375	31,378	55,773	2,900	4,873	53,801	8.68	1.53	1.38	8.84	0.06
470	1	71,170	69,397	332,372	403,542	1,504,190	810,521	538,263	1,776,448	234.20	426.92	152.03	509.09	1.60
470	290	15,136	.	7,477	22,613	74,585	3,879	6,517	71,947	11.61	2.04	1.84	11.82	0.08
470	350	3,952	3,952	1,952	5,904	12,982	675	1,134	12,523	2.02	0.36	0.32	2.06	0.01
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
480	400	2	.	1	4	5	0	0	5	0.00	0.00	0.00	0.00	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		5,721,198	3,159,447	5,314,380	11,035,577	38,879,993	6,836,238	6,071,822	39,644,408	6,053.64	3,600.77	1,714.94	7,939.46	41.26

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 393-394 / Freeport

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	400	524,054	338,096	533,093	1,057,147	3,155,087	448,609	525,706	3,077,990	491.25	236.29	148.48	579.06	5.02
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	400	41,836	35,319	20,666	62,502	91,624	5,584	10,596	86,612	14.27	2.94	2.99	14.21	0.15
280	410	5,134	.	2,536	7,670	11,712	714	1,354	11,072	1.82	0.38	0.38	1.82	0.02
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	400	60,034	57,612	29,656	89,690	122,715	7,479	14,191	116,002	19.11	3.94	4.01	19.04	0.20
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	400	366,452	352,862	181,022	547,474	334,402	20,379	38,672	316,110	52.07	10.73	10.92	51.88	0.53
350	410	4,938	4,938	2,440	7,378	4,957	302	573	4,686	0.77	0.16	0.16	0.77	0.01
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	400	194,200	28,009	95,932	290,132	159,999	9,751	18,503	151,246	24.91	5.14	5.23	24.82	0.25
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	400	10,151	10,151	5,014	15,165	4,631	282	536	4,378	0.72	0.15	0.15	0.72	0.01
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	1	461,910	430,241	709,591	1,171,501	3,189,392	898,028	810,350	3,277,069	496.59	473.01	228.88	740.72	5.08
400	280	39,123	39,123	19,326	58,449	91,998	5,607	10,639	86,965	14.32	2.95	3.00	14.27	0.15
400	290	21,394	20,430	10,568	31,962	43,731	2,665	5,057	41,339	6.81	1.40	1.43	6.78	0.07
400	350	209,371	163,238	103,427	312,798	191,060	11,644	22,095	180,608	29.75	6.13	6.24	29.64	0.30
400	360	26,365	15,074	13,024	39,389	21,653	1,320	2,504	20,469	3.37	0.70	0.71	3.36	0.03

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 393-394 / Freeport

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
400	400	15,457	57	7,635	23,092	2,257	138	261	2,133	0.35	0.07	0.07	0.35	0.00
410	1	117,043	2,063	127,193	244,236	884,323	128,770	149,250	863,843	137.69	67.83	42.15	163.36	1.41
410	280	862	862	426	1,288	1,967	120	227	1,859	0.31	0.06	0.06	0.31	0.00
410	350	95,370	2,902	47,111	142,481	95,732	5,834	11,071	90,495	14.91	3.07	3.13	14.85	0.15
410	360	36,869	935	18,213	55,082	33,645	2,050	3,891	31,804	5.24	1.08	1.10	5.22	0.05
410	380	5,691	5,691	2,812	8,503	3,116	190	360	2,946	0.49	0.10	0.10	0.48	0.00
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	4	.	2	6	6	0	1	6	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		9,535,330	5,265,745	8,857,299	18,392,629	43,199,992	8,901,351	8,929,150	43,172,193	6,726.27	4,688.50	2,521.97	8,892.79	68.77

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRIT
FM1495	58701	675,455	523,260	2,342,909	20.00	6.95	65.23	3.4	5.7	3,600	3,690	112.50	118.10	0.0
FM1764	160701	90,816	44,582	4,149,703	14.52	14.12	2.78	4.5	4.5	24,000	24,012	375.00	375.38	0.2
FM1764	160702	60,544	29,721	4,149,703	20.00	19.44	2.78	3.0	3.0	24,000	24,008	750.00	750.50	0.5
FM2918	293901	156,130	7,021	4,334,935	20.00	7.87	60.65	7.0	10.7	500	521	15.63	16.92	0.0
FM360	52706	683,926	462,801	5,014,448	20.00	7.37	63.13	9.2	14.4	1,500	1,591	46.88	52.54	0.0
FM523	100301	137,304	104,089	1,867,826	20.00	16.33	18.33	3.2	3.5	6,625	6,643	207.03	208.17	0.1
I45	11004	84,826	41,641	12,973,790	6.95	6.92	0.41	11.4	11.4	62,000	62,011	968.75	969.10	0.4
I45	11005	74,675	36,658	5,528,218	2.18	2.17	0.26	10.0	10.0	95,667	95,677	1494.8	1495.1	0.6
I45	67508	129,431	63,538	15,422,523	12.91	12.78	0.96	17.4	17.4	26,000	26,017	406.25	406.79	0.1
S134	37602	471,481	250,587	7,009,427	20.00	17.31	13.43	6.5	6.9	15,900	15,963	496.88	500.78	0.3
S146	38905	447,413	237,769	2,496,949	9.75	8.42	13.58	6.2	6.5	15,700	15,759	245.31	247.17	0.1
S146	38906	545,363	289,937	2,496,949	10.65	8.81	17.30	7.5	8.1	11,786	11,858	184.16	186.42	0.1
S146	38912	348,428	185,049	2,496,949	9.98	8.87	11.13	4.8	5.0	19,700	19,746	307.81	309.26	0.2
S197	38911	109,231	53,622	3,294,557	20.00	17.89	10.53	5.4	5.6	5,833	5,847	182.28	183.19	0.1
S288	59804	799,726	601,915	2,655,275	6.85	5.80	15.24	12.2	12.9	12,600	12,706	196.88	200.19	0.1
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.2
S332	58601	349,111	264,658	2,057,202	11.46	9.80	14.50	8.1	8.6	8,767	8,813	273.97	276.86	0.2
S341	62801	121,088	59,442	4,149,703	20.00	17.63	11.86	6.0	6.3	5,100	5,116	79.69	80.19	0.0
S348	68601	226,031	110,959	7,909,001	19.32	18.43	4.59	11.2	11.4	14,500	14,530	453.13	455.00	0.3
S35	17801	1,715,262	1,043,110	1,764,574	5.81	3.85	33.70	5.3	6.3	21,500	21,727	335.94	343.05	0.2
S35	17802	1,715,262	1,043,110	2,342,909	10.26	6.12	40.32	6.3	7.8	13,773	14,000	215.20	222.31	0.1
S35	17803	1,715,262	1,043,110	2,342,909	13.82	7.24	47.65	7.2	9.5	8,900	9,127	139.06	146.17	0.1
S35	17901	1,139,998	616,110	2,342,909	10.29	7.09	31.04	10.4	12.0	8,300	8,451	129.69	134.41	0.1
S35	17902	1,139,998	616,110	2,342,909	10.46	7.17	31.40	10.3	11.9	8,222	8,373	256.94	266.39	0.1
S35	17903	1,079,813	611,405	2,342,909	13.90	8.82	36.56	10.5	12.6	6,067	6,210	189.59	198.54	0.1
S36	18705	747,709	468,023	2,535,398	13.80	10.10	26.79	15.1	16.9	4,600	4,699	143.75	149.95	0.1
S36	18801	747,709	468,023	2,535,398	11.10	8.57	22.74	8.7	9.6	9,900	9,999	309.38	315.57	0.2
S36	18802	747,709	468,023	2,535,398	19.72	12.95	34.35	10.2	12.1	4,750	4,849	148.44	154.64	0.1
S36	18803	747,709	468,023	3,516,385	20.00	14.06	29.71	10.2	11.6	6,013	6,112	187.91	194.10	0.1
S36	18804	747,709	468,023	3,516,385	16.53	12.65	23.45	7.4	8.2	11,367	11,466	355.22	361.42	0.2
S36	18805	747,709	468,023	3,516,385	20.00	13.05	34.75	8.1	9.6	6,000	6,099	187.50	193.70	0.1
S36	18806	747,709	468,023	3,516,385	20.00	13.40	33.00	7.7	9.0	6,820	6,919	213.13	219.32	0.1
S8	325603	1,199,977	749,822	4,149,703	15.04	10.81	28.12	4.0	4.6	26,067	26,226	271.53	274.85	0.2
S8	325604	1,199,977	749,822	4,149,703	15.68	11.14	28.98	4.0	4.6	25,000	25,159	260.42	263.73	0.1
S87	37606	607,710	298,326	6,504,983	20.00	13.80	31.00	9.2	10.6	5,000	5,081	156.25	161.29	0.1
US59	17707	3,912,597	2,052,229	4,149,703	2.37	1.98	16.76	6.2	6.7	106,000	106,519	1656.3	1672.5	0.7
US75	5104	607,710	298,326	6,011,120	10.14	9.28	8.44	6.2	6.4	36,000	36,081	562.50	565.02	0.2
US90	2801	140,386	115,788	3,715,330	12.14	11.65	3.96	7.1	7.2	16,375	16,394	255.86	256.44	0.1
US90	2802	140,386	115,788	3,715,330	20.00	18.63	6.84	7.3	7.5	8,900	8,919	139.06	139.64	0.0
US90A	2710	28,311	13,898	3,715,330	13.96	13.82	0.95	3.8	3.8	26,480	26,484	413.75	413.87	0.1

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
495	58701	675,455	523,260	2,342,909	20.00	6.95	65.23	3.4	5.7	3,600	3,690	112.50	118.10	0.08
764	160701	90,816	44,582	4,149,703	14.52	14.12	2.78	4.5	4.5	24,000	24,012	375.00	375.38	0.27
764	160702	60,544	29,721	4,149,703	20.00	19.44	2.78	3.0	3.0	24,000	24,008	750.00	750.50	0.54
918	293901	156,130	7,021	4,334,935	20.00	7.87	60.65	7.0	10.7	500	521	15.63	16.92	0.01
60	52706	683,926	462,801	5,014,448	20.00	7.37	63.13	9.2	14.4	1,500	1,591	46.88	52.54	0.04
23	100301	137,304	104,089	1,867,826	20.00	16.33	18.33	3.2	3.5	6,625	6,643	207.03	208.17	0.15
	11004	84,826	41,641	12,973,790	6.95	6.92	0.41	11.4	11.4	62,000	62,011	968.75	969.10	0.44
	11005	74,675	36,658	5,528,218	2.18	2.17	0.26	10.0	10.0	95,667	95,677	1494.8	1495.1	0.68
	67508	129,431	63,538	15,422,523	12.91	12.78	0.96	17.4	17.4	26,000	26,017	406.25	406.79	0.18
4	37602	471,481	250,587	7,009,427	20.00	17.31	13.43	6.5	6.9	15,900	15,963	496.88	500.78	0.36
6	38905	447,413	237,769	2,496,949	9.75	8.42	13.58	6.2	6.5	15,700	15,759	245.31	247.17	0.18
6	38906	545,363	289,937	2,496,949	10.65	8.81	17.30	7.5	8.1	11,786	11,858	184.16	186.42	0.13
6	38912	348,428	185,049	2,496,949	9.98	8.87	11.13	4.8	5.0	19,700	19,746	307.81	309.26	0.22
7	38911	109,231	53,622	3,294,557	20.00	17.89	10.53	5.4	5.6	5,833	5,847	182.28	183.19	0.13
8	59804	799,726	601,915	2,655,275	6.85	5.80	15.24	12.2	12.9	12,600	12,706	196.88	200.19	0.14
0	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
2	58601	349,111	264,658	2,057,202	11.46	9.80	14.50	8.1	8.6	8,767	8,813	273.97	276.86	0.20
1	62801	121,088	59,442	4,149,703	20.00	17.63	11.86	6.0	6.3	5,100	5,116	79.69	80.19	0.06
8	68601	226,031	110,959	7,909,001	19.32	18.43	4.59	11.2	11.4	14,500	14,530	453.13	455.00	0.32
	17801	1,715,262	1,043,110	1,764,574	5.81	3.85	33.70	5.3	6.3	21,500	21,727	335.94	343.05	0.25
	17802	1,715,262	1,043,110	2,342,909	10.26	6.12	40.32	6.3	7.8	13,773	14,000	215.20	222.31	0.16
	17803	1,715,262	1,043,110	2,342,909	13.82	7.24	47.65	7.2	9.5	8,900	9,127	139.06	146.17	0.10
	17901	1,139,998	616,110	2,342,909	10.29	7.09	31.04	10.4	12.0	8,300	8,451	129.69	134.41	0.10
	17902	1,139,998	616,110	2,342,909	10.46	7.17	31.40	10.3	11.9	8,222	8,373	256.94	266.39	0.19
	17903	1,079,813	611,405	2,342,909	13.90	8.82	36.56	10.5	12.6	6,067	6,210	189.59	198.54	0.14
	18705	747,709	468,023	2,535,398	13.80	10.10	26.79	15.1	16.9	4,600	4,699	143.75	149.95	0.11
	18801	747,709	468,023	2,535,398	11.10	8.57	22.74	8.7	9.6	9,900	9,999	309.38	315.57	0.23
	18802	747,709	468,023	2,535,398	19.72	12.95	34.35	10.2	12.1	4,750	4,849	148.44	154.64	0.11
	18803	747,709	468,023	3,516,385	20.00	14.06	29.71	10.2	11.6	6,013	6,112	187.91	194.10	0.14
	18804	747,709	468,023	3,516,385	16.53	12.65	23.45	7.4	8.2	11,367	11,466	355.22	361.42	0.26
	18805	747,709	468,023	3,516,385	20.00	13.05	34.75	8.1	9.6	6,000	6,099	187.50	193.70	0.14
	18806	747,709	468,023	3,516,385	20.00	13.40	33.00	7.7	9.0	6,820	6,919	213.13	219.32	0.16
	325603	1,199,977	749,822	4,149,703	15.04	10.81	28.12	4.0	4.6	26,067	26,226	271.53	274.85	0.20
	325604	1,199,977	749,822	4,149,703	15.68	11.14	28.98	4.0	4.6	25,000	25,159	260.42	263.73	0.19
	37606	607,710	298,326	6,504,983	20.00	13.80	31.00	9.2	10.6	5,000	5,081	156.25	161.29	0.12
9	17707	3,912,597	2,052,229	4,149,703	2.37	1.98	16.76	6.2	6.7	106,000	106,519	1656.3	1672.5	0.76
5	5104	607,710	298,326	6,011,120	10.14	9.28	8.44	6.2	6.4	36,000	36,081	562.50	565.02	0.26
0	2801	140,386	115,788	3,715,330	12.14	11.65	3.96	7.1	7.2	16,375	16,394	255.86	256.44	0.12
0	2802	140,386	115,788	3,715,330	20.00	18.63	6.84	7.3	7.5	8,900	8,919	139.06	139.64	0.06
0A	2710	28,311	13,898	3,715,330	13.96	13.82	0.95	3.8	3.8	26,480	26,484	413.75	413.87	0.19

E

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	230,956	172,371	1,252,801	20.00	7.90	60.48	7.9	12.0	660	691	20.63	22.54	0.02
FM2717	271401	101,669	76,689	2,094,784	20.00	7.00	65.00	7.9	12.8	240	253	7.50	8.34	0.01
FM2760	271403	122,570	92,455	2,568,860	20.00	11.94	40.31	9.5	11.7	660	676	20.63	21.64	0.02
S316	58001	224,238	169,144	1,642,425	20.00	6.36	68.22	4.8	8.5	740	770	23.13	24.98	0.02
S35	17904	1,076,215	610,888	2,276,676	7.94	5.94	25.25	10.5	11.7	10,317	10,460	161.20	165.66	0.12
S35	17906	846,243	438,518	2,276,676	11.85	8.48	28.37	11.8	13.4	6,150	6,262	96.09	99.60	0.07
S35	17907	846,243	438,518	2,276,676	15.25	10.10	33.77	16.4	19.1	3,430	3,542	107.19	114.20	0.08
S35	17908	846,243	438,518	2,276,676	20.00	7.39	63.07	6.4	10.2	2,638	2,750	82.44	89.45	0.06
S35	17909	822,772	438,518	2,276,676	18.12	11.40	37.07	15.3	18.2	3,100	3,209	96.88	103.70	0.07
S35	17910	822,772	438,518	1,795,577	8.02	6.03	24.84	10.0	11.1	8,500	8,609	132.81	136.22	0.10
S35	18001	740,056	373,931	1,795,577	6.49	5.23	19.41	13.1	14.2	7,964	8,062	248.88	255.01	0.18
S60	24101	230,956	172,371	1,952,424	16.05	13.71	14.59	10.8	11.4	4,260	4,291	133.13	135.04	0.10
S60	24102	230,956	172,371	2,276,676	15.73	13.75	12.55	8.7	9.1	6,325	6,356	98.83	99.79	0.07
S60	24103	230,956	172,371	2,276,676	20.00	14.53	27.33	3.6	4.1	5,800	5,831	90.63	91.58	0.07
S60	24104	230,956	172,371	2,276,676	20.00	13.56	32.22	6.9	8.1	2,400	2,431	75.00	76.91	0.05
US59	8905	3,227,688	1,589,427	2,112,832	2.78	2.01	27.63	21.1	23.5	13,600	14,028	212.50	225.88	0.10
US59	8904	3,227,688	1,589,427	2,112,832	2.78	2.01	27.66	21.4	23.9	13,400	13,828	209.38	222.75	0.10
US59	8903	3,227,688	1,589,427	2,112,832	2.39	1.80	24.70	21.8	23.9	15,350	15,778	239.84	253.22	0.12
US59	8901	3,227,688	1,589,427	5,841,189	11.03	7.13	35.42	13.6	16.0	14,767	15,195	230.73	244.11	0.11
US59	8804	2,829,384	1,293,217	5,841,189	11.42	7.63	33.23	15.0	17.4	12,867	13,242	201.05	212.77	0.10
US87	14306	141,521	104,557	5,841,189	20.00	16.90	15.51	9.2	9.8	2,850	2,869	89.06	90.24	0.04
US87	14307	141,521	104,557	5,841,189	20.00	15.29	23.53	9.2	10.2	1,700	1,719	53.13	54.30	0.02
US87	14308	141,521	104,557	8,872,292	20.00	18.40	7.99	9.2	9.5	6,020	6,039	188.13	189.30	0.09
US87	14309	141,521	104,557	8,872,292	20.00	18.46	7.72	10.1	10.4	5,667	5,686	177.09	178.27	0.08
US87	14310	141,521	104,557	5,009,267	19.39	18.48	4.70	11.8	12.0	8,280	8,299	258.75	259.92	0.12
US87	14401	141,521	104,557	5,009,267	20.00	17.98	10.08	6.7	7.0	6,363	6,382	198.84	200.02	0.09
US87	14403	141,521	104,557	2,276,676	20.00	17.64	11.79	7.5	7.9	4,800	4,819	150.00	151.17	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	14,146	7,420	3,436,383	20.00	19.68	1.61	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	16,341	8,571	3,074,361	20.00	19.19	4.04	6.7	6.8	2,000	2,002	62.50	62.64	0.04
S35	18003	44,033	12,817	1,791,737	15.08	14.59	3.23	14.0	14.2	3,200	3,206	100.00	100.36	0.07
S35	18004	44,033	12,817	1,791,737	6.71	6.61	1.46	9.5	9.6	10,592	10,598	331.00	331.36	0.24
S35	18005	44,033	12,817	1,791,737	7.71	7.58	1.68	9.9	10.0	8,867	8,873	277.09	277.46	0.20
S358	61701	2,737,588	1,273,813	2,810,157	5.12	3.54	30.76	4.3	5.1	48,638	49,001	506.65	514.21	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
S361	18010	30,487	15,990	1,470,362	9.81	9.63	1.80	10.3	10.4	5,500	5,504	171.88	172.13	0.12
S44	10201	2,737,588	1,273,813	1,316,451	8.73	3.32	62.03	7.4	11.6	7,700	8,063	120.31	131.66	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,224,812	575,522	2,129,917	4.02	3.33	17.21	19.9	21.2	10,043	10,205	156.92	162.00	0.07
US77	37103	1,224,812	575,522	2,129,917	20.00	5.79	71.06	18.8	31.2	900	1,062	14.06	19.14	0.01
US77	37104	2,829,203	1,293,036	2,483,647	6.83	4.02	41.16	18.8	22.8	7,300	7,675	114.06	125.79	0.06
US77	37203	2,823,040	1,289,863	2,483,647	15.17	5.95	60.80	7.8	12.0	7,933	8,307	123.95	135.65	0.06
US77	37201	2,823,040	1,289,863	2,483,647	4.38	3.03	30.93	16.2	18.5	13,200	13,574	206.25	217.95	0.10
US77	37301	2,823,040	1,289,863	1,167,359	1.42	1.08	23.56	16.0	17.6	19,475	19,849	304.30	316.00	0.14
US77	10202	85,452	16,049	1,167,359	1.52	1.51	0.99	20.7	20.8	13,975	13,986	218.36	218.71	0.10
US77	10203	85,452	16,049	1,167,359	1.33	1.32	0.87	20.4	20.4	16,300	16,311	254.69	255.04	0.12
US77	10204	85,452	16,049	2,483,647	3.34	3.30	1.02	22.7	22.8	12,386	12,397	193.53	193.89	0.09
US77	32701	85,452	16,049	2,483,647	4.78	4.71	1.46	28.9	29.0	6,800	6,811	106.25	106.60	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
I10	73902	2,075,395	1,213,888	4,790,983	2.67	2.42	9.35	26.5	27.3	26,000	26,275	406.25	414.85	0.19
I10	73901	2,075,395	1,213,888	4,790,983	2.55	2.32	8.97	28.9	29.7	25,000	25,275	390.63	399.23	0.18
I10	50803	2,075,395	1,213,888	4,790,983	2.56	2.33	9.00	26.2	26.9	27,500	27,775	429.69	438.29	0.20
I10	50802	2,075,395	1,213,888	4,790,983	2.56	2.33	8.98	23.8	24.4	30,333	30,608	473.95	482.55	0.22
US90	2807	140,386	115,788	1,436,461	2.65	2.59	2.27	8.1	8.2	25,333	25,352	395.83	396.41	0.18
US90	2806	140,386	115,788	1,436,461	6.02	5.71	5.02	12.7	12.9	7,122	7,141	111.28	111.86	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM106	142503	42,986	16,049	1,673,506	20.00	19.12	4.42	10.9	11.1	2,900	2,906	90.63	90.98	0.06
FM2925	63003	42,986	16,049	1,673,506	20.00	15.11	24.43	7.7	8.6	587	593	18.34	18.70	0.01

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 393-394 / Freeport
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

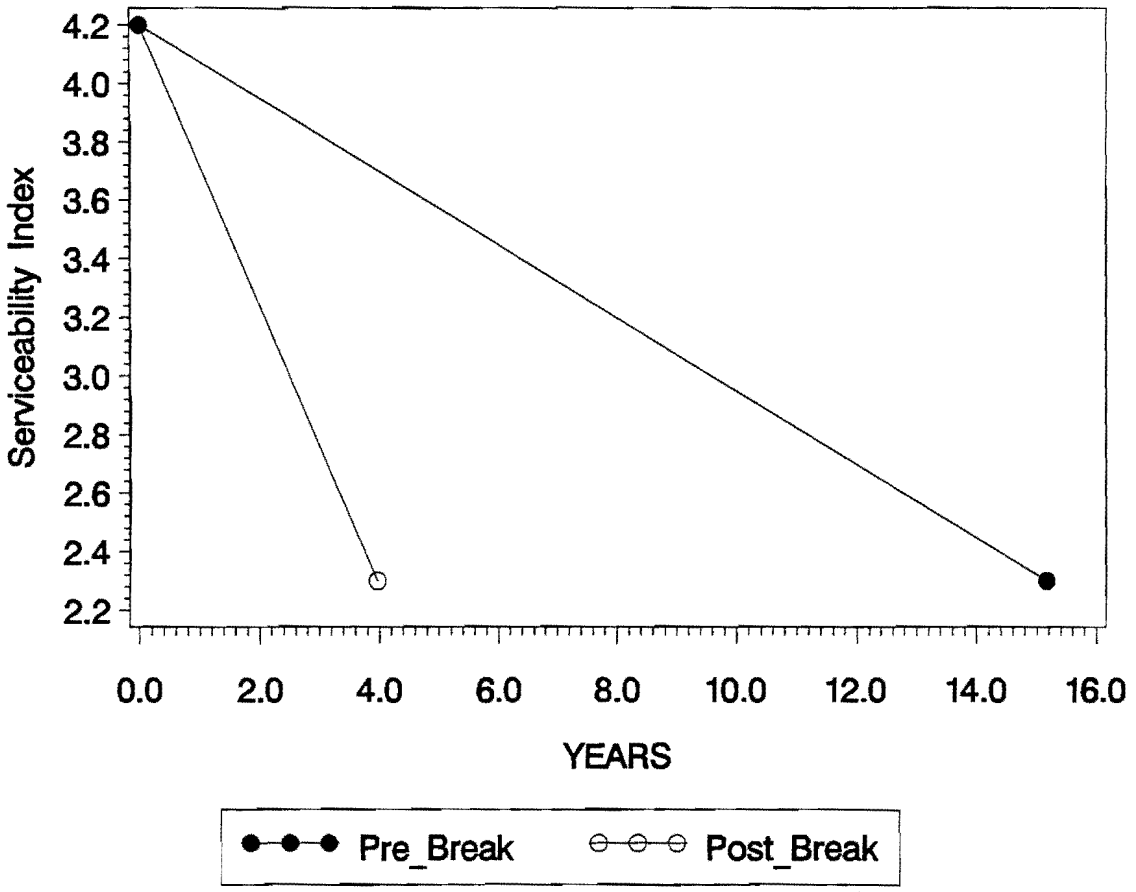
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM508	34204	42,986	16,049	1,673,506	20.00	18.14	9.30	6.6	6.8	2,160	2,166	67.50	67.86	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	85,452	16,049	5,006,733	9.84	9.70	1.49	29.6	29.7	6,500	6,511	101.56	101.92	0.05
US77	32703	85,452	16,049	5,006,733	10.24	10.08	1.55	30.3	30.4	6,100	6,111	95.31	95.67	0.04
US77	32704	85,452	16,049	5,006,733	10.38	10.21	1.57	30.4	30.5	6,000	6,011	93.75	94.10	0.04
US77	32705	85,452	16,049	5,006,733	9.39	9.26	1.42	30.1	30.2	6,700	6,711	104.69	105.04	0.05
US77	32710	85,452	16,049	1,951,437	3.48	3.43	1.35	25.6	25.7	8,287	8,298	129.48	129.84	0.06
US77	32708	85,452	16,049	1,951,437	13.66	12.96	5.11	5.4	5.5	10,000	10,011	104.17	104.40	0.05
US77	3907	85,452	16,049	1,951,437	1.14	1.13	0.45	23.2	23.2	27,920	27,931	436.25	436.60	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX F

Brazos River Break Point (405)

PAVEMENT LIFETIME

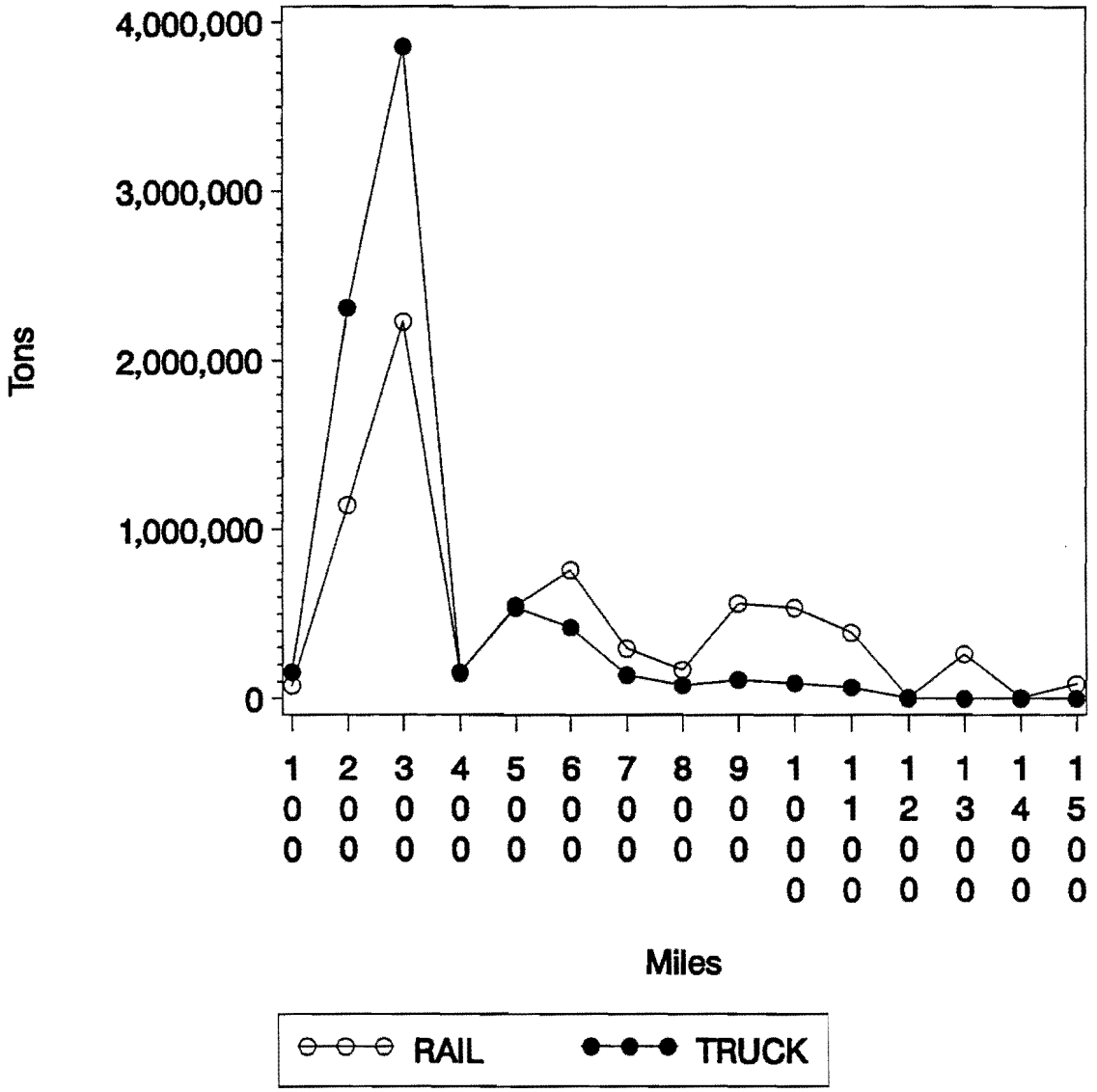
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 405 / Brazos River
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

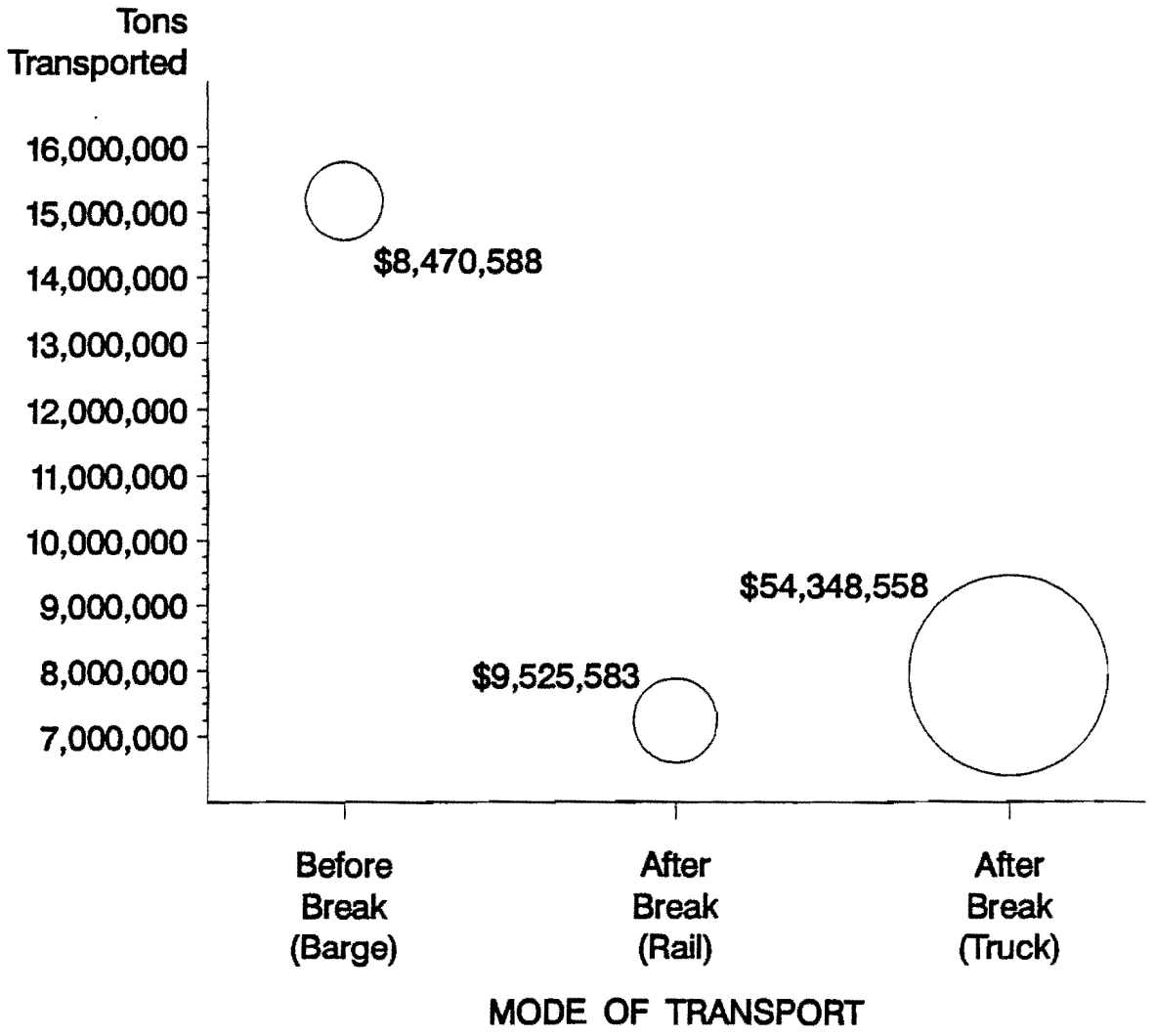
AS A FUNCTION OF DISTANCE

BREAK POINT 405 / Brazos River



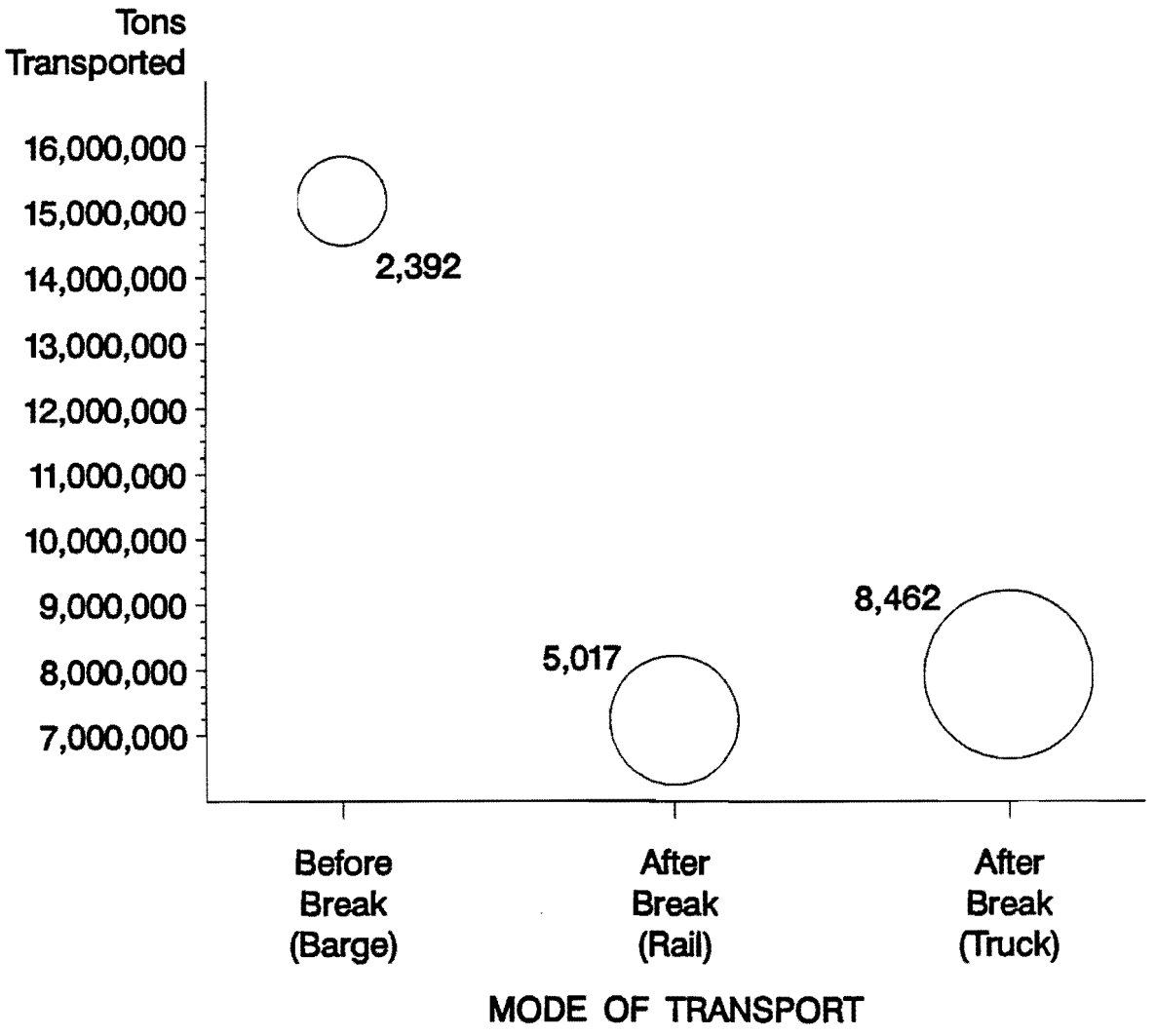
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 405 / Brazos River



EMISSIONS (Tons)

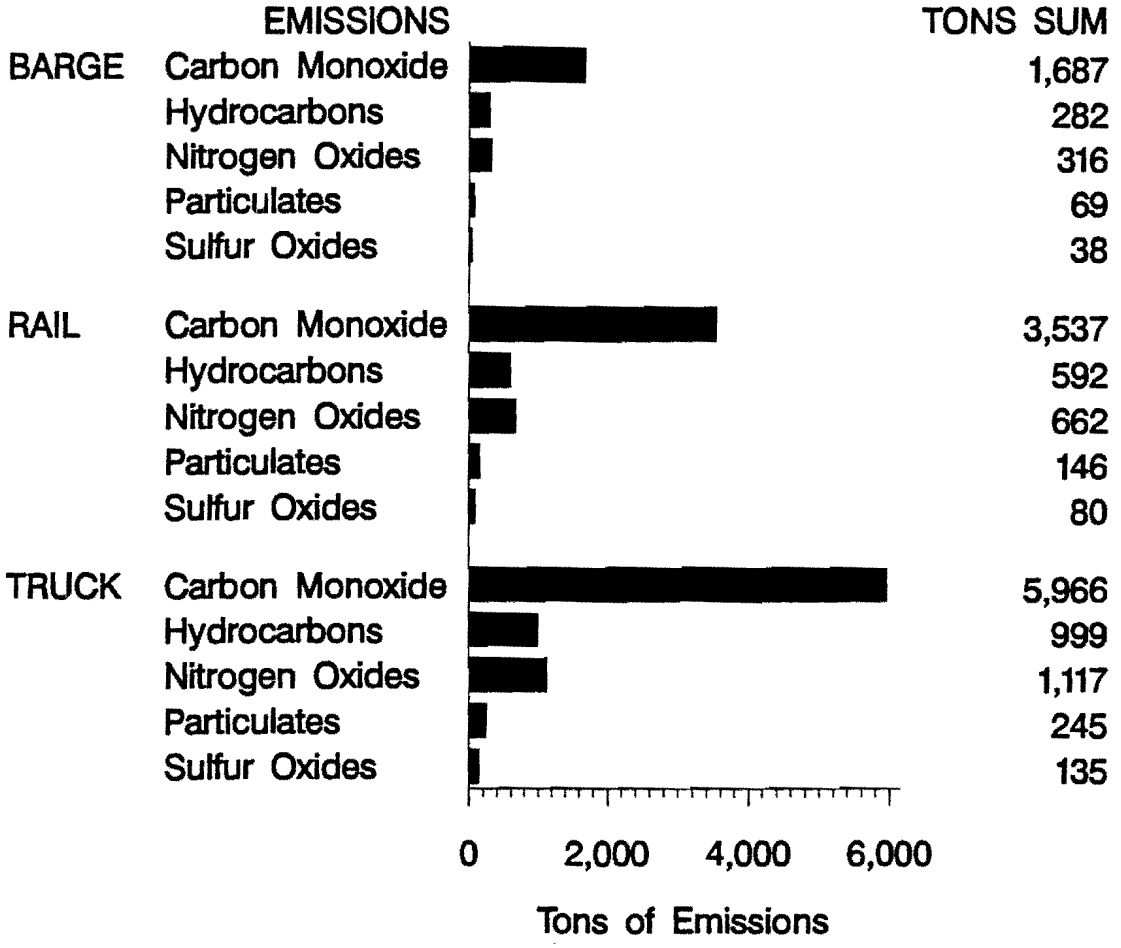
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON – MILES EFFICIENCY
BREAK POINT 405 / Brazos River



EMISSIONS (Tons)

LOW END OF TON – MILE EFFICIENCY

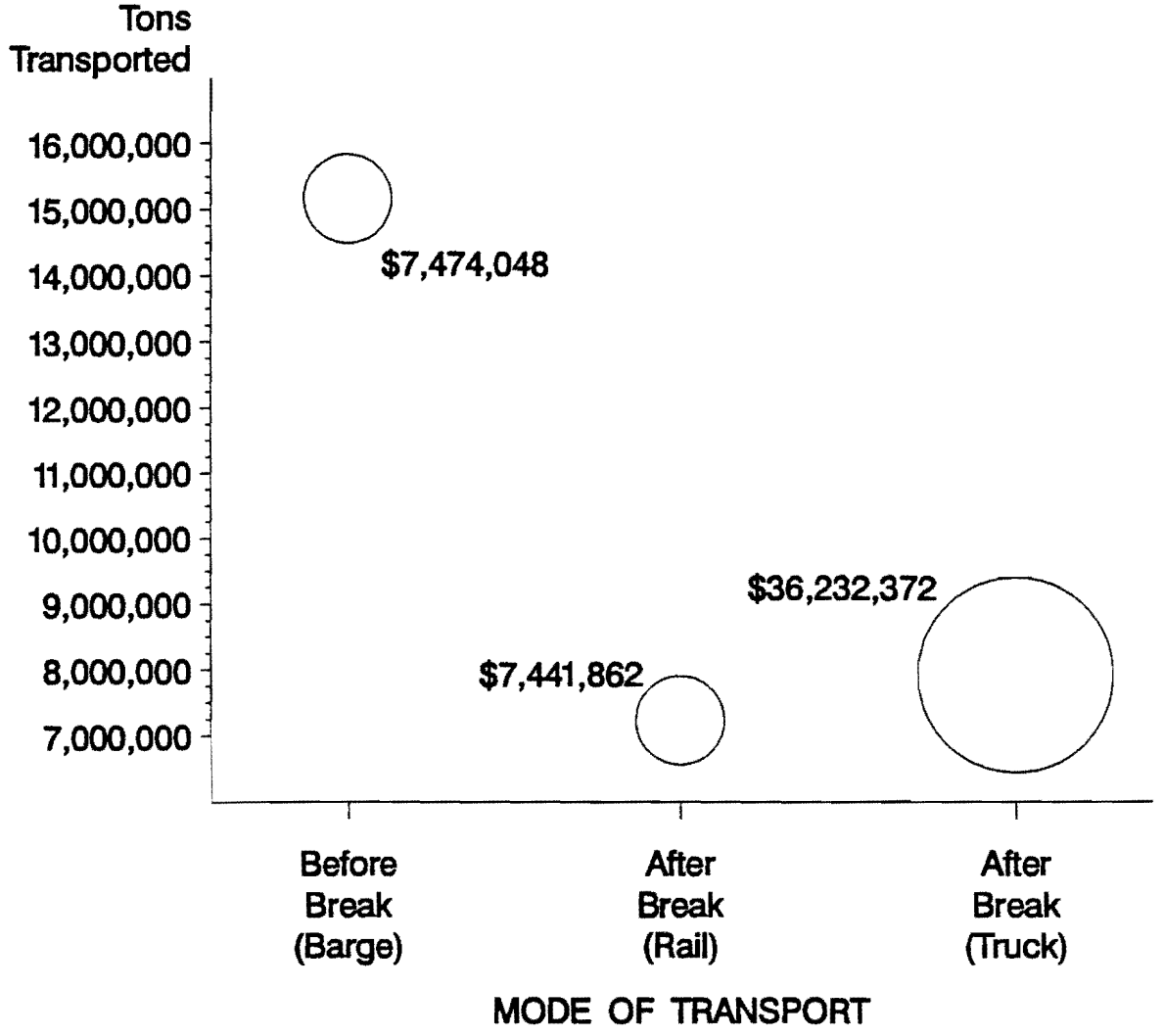
BREAK POINT 405 / Brazos River



Note: Barge emissions are pre – break
Rail & Truck emissions are post – break

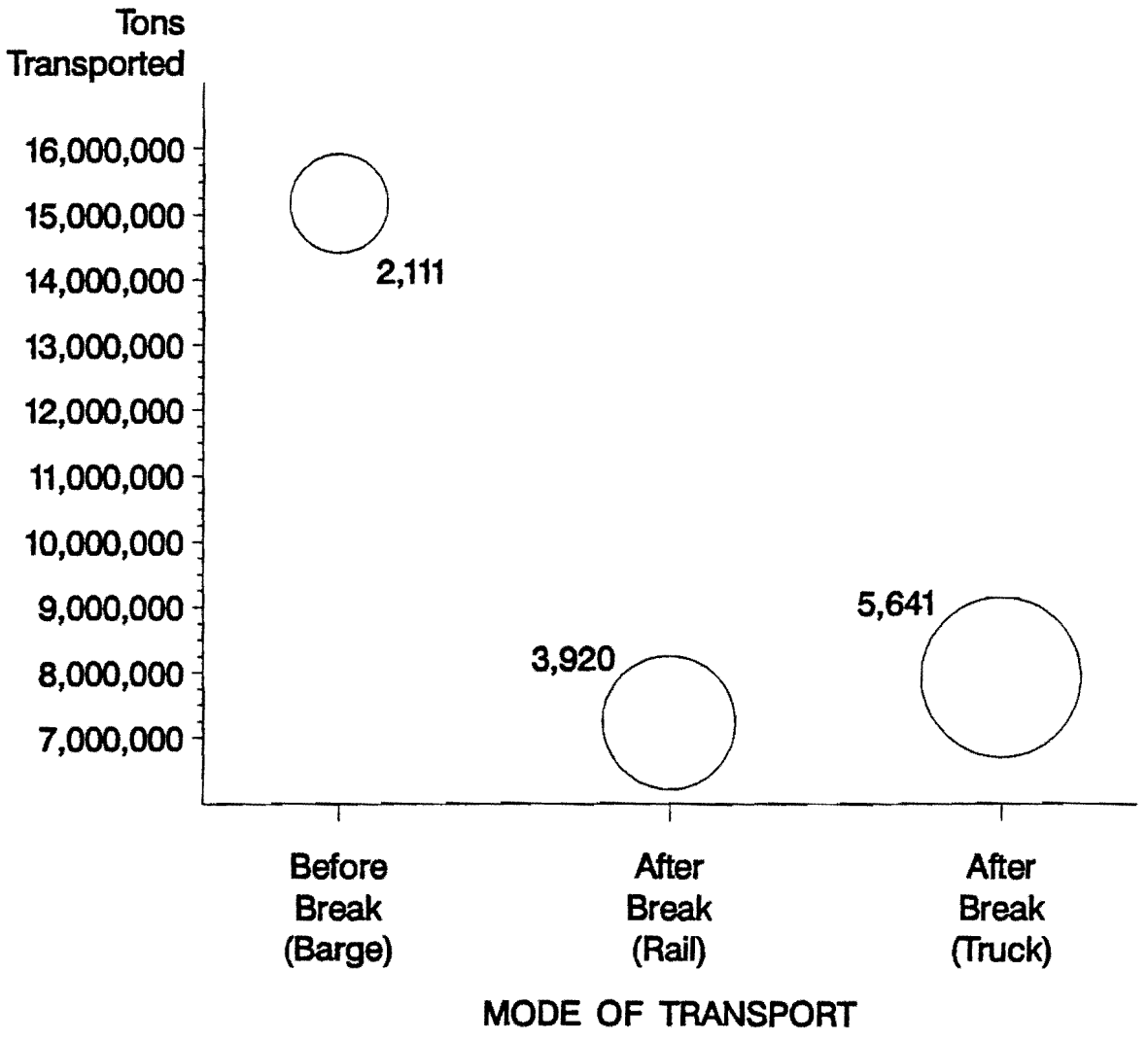
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON – MILES EFFICIENCY
BREAK POINT 405 / Brazos River



EMISSIONS (Tons)

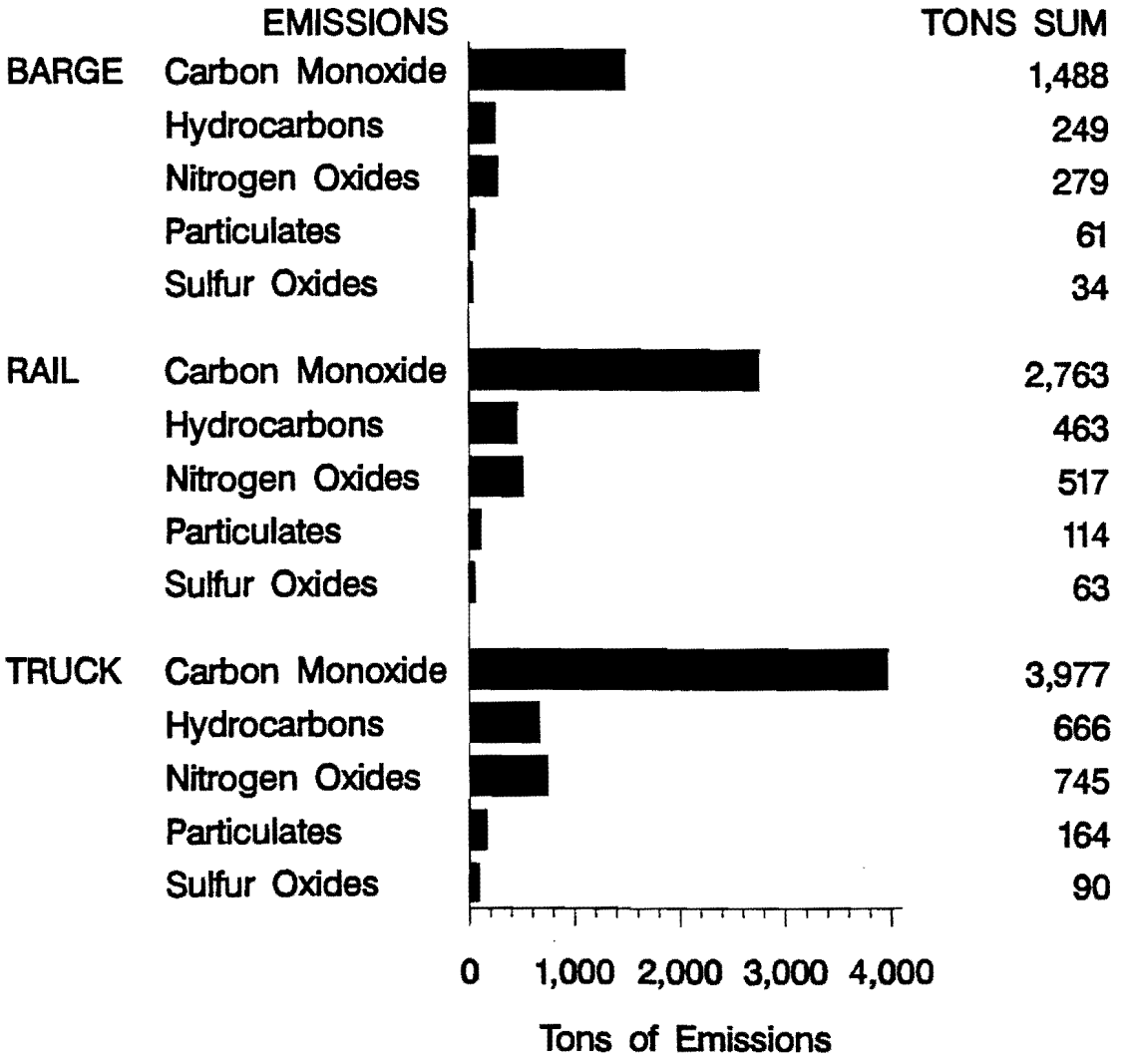
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 405 / Brazos River



EMISSIONS (Tons)

HIGH END OF TON–MILE EFFICIENCY

BREAK POINT 405 / Brazos River



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 405 / Brazos River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	7,694	1,485	1,275	7,904	1.20	0.78	0.36	1.62	0.01
1	470	116,950	58,298	121,717	238,667	1,231,165	135,568	147,321	1,219,412	191.69	71.41	41.61	221.49	1.31
1	480	302	302	308	610	3,418	368	404	3,382	0.53	0.19	0.11	0.61	0.00
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	470	1,791	.	884	2,675	8,921	464	780	8,606	1.39	0.24	0.22	1.41	0.01
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	450	152,560	117,520	75,362	227,922	396,768	20,633	34,668	382,734	61.78	10.87	9.79	62.85	0.42
350	470	100,509	98,951	49,650	150,159	330,187	17,171	28,851	318,507	51.41	9.04	8.15	52.31	0.35
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	450	59,430	48,174	29,357	88,787	146,426	7,615	12,794	141,247	22.80	4.01	3.61	23.20	0.16
360	460	4,114	.	2,032	6,146	10,924	568	955	10,538	1.70	0.30	0.27	1.73	0.01
360	470	2,107	2,107	1,041	3,148	6,634	345	580	6,399	1.03	0.18	0.16	1.05	0.01
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	470	55,793	55,793	27,561	83,354	106,918	5,560	9,342	103,136	16.65	2.93	2.64	16.94	0.11
400	500	99,562	99,562	49,182	148,744	258,935	13,466	22,625	249,776	40.32	7.09	6.39	41.02	0.27
400	540	5,244	5,244	2,590	7,834	19,092	993	1,668	18,417	2.97	0.52	0.47	3.02	0.02
400	550	277,797	241,162	137,228	415,025	1,142,330	59,406	99,813	1,101,923	177.86	31.29	28.19	180.96	1.21
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
450	1	676	.	692	1,368	6,352	684	751	6,284	0.99	0.36	0.21	1.14	0.01
450	350	170,372	120,664	84,161	254,533	443,093	23,043	38,716	427,420	68.99	12.14	10.94	70.19	0.47
450	360	926	926	458	1,384	2,282	119	199	2,202	0.36	0.06	0.06	0.36	0.00
460	360	35,005	.	17,292	52,297	92,956	4,834	8,122	89,668	14.47	2.55	2.29	14.73	0.10
460	400	38,924	.	19,228	58,152	55,411	2,882	4,842	53,451	8.63	1.52	1.37	8.78	0.06
470	1	118,616	115,662	553,954	672,570	2,506,983	1,350,869	897,105	2,960,747	390.34	711.53	253.38	848.48	2.66
470	290	25,226	.	12,462	37,688	124,309	6,465	10,862	119,912	19.36	3.40	3.07	19.69	0.13
470	350	6,586	6,586	3,254	9,840	21,637	1,125	1,891	20,872	3.37	0.59	0.53	3.43	0.02

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
480	400	8	.	4	12	18	1	2	17	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
550	400	143,205	138,085	70,742	213,947	588,064	30,582	51,383	567,263	91.56	16.11	14.51	93.16	0.62
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		7,926,006	4,297,986	7,237,310	15,163,316	54,348,558	9,525,583	8,470,588	55,403,553	8,462.11	5,017.29	2,392.46	11,086.94	57.68

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 405 / Brazos River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,926,006	4,297,986	7,237,310	15,163,316	36,232,372	7,441,862	7,474,048	36,200,186	5,641.40	3,919.76	2,110.99	7,450.17	57.68

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	588,004	539,846	2,342,909	20.00	7.59	62.03	3.4	5.4	3,600	3,678	112.50	117.37	0.08
FM1764	160701	112,889	67,725	4,149,703	14.52	14.02	3.43	4.5	4.6	24,000	24,015	375.00	375.47	0.27
FM1764	160702	75,259	45,150	4,149,703	20.00	19.31	3.43	3.0	3.0	24,000	24,010	750.00	750.62	0.54
FM360	52706	427,404	379,247	5,014,448	20.00	9.66	51.69	9.2	12.5	1,500	1,557	46.88	50.42	0.04
FM523	100301	62,224	53,580	1,867,826	20.00	18.15	9.23	3.2	3.3	6,625	6,633	207.03	207.55	0.15
I45	11004	105,444	63,258	12,973,790	6.95	6.91	0.51	11.4	11.4	62,000	62,014	968.75	969.19	0.44
I45	11005	92,825	55,688	5,528,218	2.18	2.17	0.33	10.0	10.0	95,667	95,679	1494.8	1495.2	0.68
I45	67508	160,890	96,522	15,422,523	12.91	12.75	1.20	17.4	17.4	26,000	26,021	406.25	406.92	0.18
S134	37602	658,647	319,112	7,009,427	20.00	16.44	17.81	6.5	7.0	15,900	15,987	496.88	502.33	0.36
S146	38905	625,039	302,788	2,496,949	9.75	7.99	18.00	6.2	6.7	15,700	15,783	245.31	247.90	0.18
S146	38906	761,818	369,223	2,496,949	10.65	8.24	22.61	7.5	8.3	11,786	11,887	184.16	187.31	0.13
S146	38912	486,814	235,652	2,496,949	9.98	8.49	14.90	4.8	5.1	19,700	19,765	307.81	309.83	0.22
S197	38911	135,781	81,458	3,294,557	20.00	17.45	12.76	5.4	5.7	5,833	5,851	182.28	183.41	0.13
S288	59804	237,879	204,830	2,655,275	6.85	6.50	5.08	12.2	12.4	12,600	12,632	196.88	197.86	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	158,211	136,233	2,057,202	11.46	10.65	7.14	8.1	8.3	8,767	8,788	273.97	275.28	0.20
S341	62801	150,519	90,300	4,149,703	20.00	17.13	14.33	6.0	6.4	5,100	5,120	79.69	80.31	0.06
S348	68601	280,969	168,560	7,909,001	19.32	18.23	5.64	11.2	11.4	14,500	14,537	453.13	455.45	0.33
S35	17801	1,793,692	1,018,147	1,764,574	5.81	3.80	34.71	5.3	6.4	21,500	21,738	335.94	343.37	0.25
S35	17802	1,793,692	1,018,147	2,342,909	10.26	6.01	41.40	6.3	7.9	13,773	14,011	215.20	222.64	0.16
S35	17803	1,793,692	1,018,147	2,342,909	13.82	7.08	48.76	7.2	9.6	8,900	9,138	139.06	146.50	0.10
S35	17901	1,793,692	1,018,147	2,342,909	10.29	6.02	41.46	10.4	12.9	8,300	8,538	129.69	137.12	0.10
S35	17902	1,993,215	1,178,745	2,342,909	10.46	5.81	44.45	10.3	13.1	8,222	8,486	256.94	273.46	0.20
S35	17903	1,993,215	1,178,745	2,342,909	13.90	6.74	51.55	10.5	14.2	6,067	6,331	189.59	206.12	0.15
S36	18705	626,927	539,846	2,535,398	13.80	10.56	23.48	15.1	16.6	4,600	4,683	143.75	148.95	0.11
S36	18801	626,927	539,846	2,535,398	11.10	8.90	19.80	8.7	9.5	9,900	9,983	309.38	314.57	0.22
S36	18802	626,927	539,846	2,535,398	19.72	13.71	30.49	10.2	11.8	4,750	4,833	148.44	153.63	0.11
S36	18803	626,927	539,846	3,516,385	20.00	14.77	26.16	10.2	11.4	6,013	6,096	187.91	193.10	0.14
S36	18804	626,927	539,846	3,516,385	16.53	13.15	20.44	7.4	8.1	11,367	11,450	355.22	360.42	0.26
S36	18805	626,927	539,846	3,516,385	20.00	13.83	30.87	8.1	9.3	6,000	6,083	187.50	192.70	0.14
S36	18806	626,927	539,846	3,516,385	20.00	14.16	29.22	7.7	8.8	6,820	6,903	213.13	218.32	0.16
S8	325603	1,323,830	725,763	4,149,703	15.04	10.51	30.15	4.0	4.6	26,067	26,243	271.53	275.19	0.20
S8	325604	1,323,830	725,763	4,149,703	15.68	10.82	31.04	4.0	4.7	25,000	25,176	260.42	264.07	0.19
S87	37606	755,417	453,192	6,504,983	20.00	12.83	35.83	9.2	11.0	5,000	5,100	156.25	162.51	0.12
US59	17707	5,381,119	2,649,046	4,149,703	2.37	1.86	21.69	6.2	6.9	106,000	106,714	1656.3	1678.6	0.76
US75	5104	755,417	453,192	6,011,120	10.14	9.09	10.28	6.2	6.5	36,000	36,100	562.50	565.63	0.26
US90	2801	165,744	146,423	3,715,330	12.14	11.57	4.64	7.1	7.2	16,375	16,397	255.86	256.55	0.12
US90	2802	165,744	146,423	3,715,330	20.00	18.40	7.98	7.3	7.5	8,900	8,922	139.06	139.75	0.06
US90A	2710	35,192	21,113	3,715,330	13.96	13.79	1.18	3.8	3.8	26,480	26,485	413.75	413.90	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	384,927	287,284	1,252,801	20.00	5.63	71.84	7.9	14.5	660	711	20.63	23.82	0.02
FM2717	271401	194,746	153,111	2,094,784	20.00	4.39	78.06	7.9	16.8	240	266	7.50	9.11	0.01
FM2760	271403	234,782	184,588	2,568,860	20.00	8.72	56.40	9.5	13.6	660	691	20.63	22.57	0.02
S316	58001	429,528	337,699	1,642,425	20.00	3.91	80.44	4.8	11.6	740	797	23.13	26.69	0.02
S35	17904	1,993,215	1,178,745	2,276,676	7.94	4.89	38.48	10.5	12.7	10,317	10,581	161.20	169.46	0.12
S35	17906	1,609,927	891,461	2,276,676	11.85	6.76	42.97	11.8	14.8	6,150	6,364	96.09	102.77	0.07
S35	17907	1,609,927	891,461	2,276,676	15.25	7.74	49.24	16.4	21.3	3,430	3,644	107.19	120.53	0.09
S35	17908	1,609,927	891,461	2,276,676	20.00	4.71	76.46	6.4	13.4	2,638	2,852	82.44	95.78	0.07
S35	17909	1,531,884	891,461	2,276,676	18.12	8.64	52.31	15.3	20.5	3,100	3,303	96.88	109.57	0.08
S35	17910	1,531,884	891,461	1,795,577	8.02	4.96	38.09	10.0	12.1	8,500	8,703	132.81	139.16	0.10
S35	18001	1,394,026	783,816	1,795,577	6.49	4.47	31.20	13.1	15.1	7,964	8,149	248.88	260.43	0.19
S60	24101	384,927	287,284	1,952,424	16.05	12.50	22.16	10.8	11.8	4,260	4,311	133.13	136.32	0.10
S60	24102	384,927	287,284	2,276,676	15.73	12.69	19.30	8.7	9.4	6,325	6,376	98.83	100.42	0.07
S60	24103	384,927	287,284	2,276,676	20.00	12.29	38.53	3.6	4.4	5,800	5,851	90.63	92.22	0.07
S60	24104	384,927	287,284	2,276,676	20.00	11.16	44.21	6.9	8.8	2,400	2,451	75.00	78.19	0.06
US59	8905	5,806,883	3,028,293	2,112,832	2.78	1.65	40.71	21.1	25.4	13,600	14,370	212.50	236.57	0.11
US59	8904	5,806,883	3,028,293	2,112,832	2.78	1.65	40.75	21.4	25.7	13,400	14,170	209.38	233.44	0.11
US59	8903	5,806,883	3,028,293	2,112,832	2.39	1.50	37.11	21.8	25.5	15,350	16,120	239.84	263.91	0.12
US59	8901	5,806,883	3,028,293	5,841,189	11.03	5.55	49.67	13.6	17.8	14,767	15,537	230.73	254.80	0.12
US59	8804	5,143,044	2,534,609	5,841,189	11.42	6.00	47.49	15.0	19.3	12,867	13,549	201.05	222.36	0.10
US87	14306	235,868	174,261	5,841,189	20.00	15.32	23.42	9.2	10.2	2,850	2,881	89.06	91.02	0.04
US87	14307	235,868	174,261	5,841,189	20.00	13.22	33.90	9.2	10.8	1,700	1,731	53.13	55.08	0.03
US87	14308	235,868	174,261	8,872,292	20.00	17.47	12.65	9.2	9.7	6,020	6,051	188.13	190.08	0.09
US87	14309	235,868	174,261	8,872,292	20.00	17.55	12.24	10.1	10.6	5,667	5,698	177.09	179.05	0.08
US87	14310	235,868	174,261	5,009,267	19.39	17.92	7.59	11.8	12.1	8,280	8,311	258.75	260.71	0.12
US87	14401	235,868	174,261	5,009,267	20.00	16.85	15.74	6.7	7.2	6,363	6,394	198.84	200.80	0.09
US87	14403	235,868	174,261	2,276,676	20.00	16.36	18.22	7.5	8.1	4,800	4,831	150.00	151.96	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	26,010	14,799	3,436,383	20.00	19.41	2.93	5.8	5.9	5,100	5,103	79.69	79.80	0.06
FM2725	275601	30,046	17,095	3,074,361	20.00	18.56	7.19	6.7	6.9	2,000	2,004	62.50	62.75	0.04
S35	18003	78,632	26,605	1,791,737	15.08	14.23	5.62	14.0	14.3	3,200	3,210	100.00	100.65	0.07
S35	18004	78,632	26,605	1,791,737	6.71	6.54	2.58	9.5	9.6	10,592	10,602	331.00	331.65	0.24
S35	18005	78,632	26,605	1,791,737	7.71	7.48	2.95	9.9	10.0	8,867	8,877	277.09	277.75	0.20
S358	61701	4,983,649	2,502,269	2,810,157	5.12	2.83	44.72	4.3	5.6	48,638	49,299	506.65	520.42	0.37
S361	18010	56,056	31,894	1,470,362	9.81	9.49	3.25	10.3	10.4	5,500	5,507	171.88	172.34	0.12

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S44	10201	4,983,649	2,502,269	1,316,451	8.73	2.20	74.83	7.4	14.7	7,700	8,361	120.31	140.97	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,468,758	1,338,450	2,129,917	4.02	2.83	29.53	19.9	22.5	10,043	10,370	156.92	167.15	0.08
US77	37103	2,468,758	1,338,450	2,129,917	20.00	3.36	83.19	18.8	40.5	900	1,227	14.06	24.29	0.01
US77	37104	5,142,742	2,534,307	2,483,647	6.83	3.01	55.97	18.8	25.8	7,300	7,982	114.06	135.38	0.06
US77	37203	5,132,471	2,529,018	2,483,647	15.17	3.97	73.82	7.8	15.1	7,933	8,614	123.95	145.22	0.07
US77	37201	5,132,471	2,529,018	2,483,647	4.38	2.41	44.88	16.2	20.3	13,200	13,881	206.25	227.52	0.10
US77	37301	5,132,471	2,529,018	1,167,359	1.42	0.91	35.91	16.0	18.8	19,475	20,156	304.30	325.57	0.15
US77	10202	148,822	26,749	1,167,359	1.52	1.50	1.72	20.7	20.8	13,975	13,995	218.36	218.98	0.10
US77	10203	148,822	26,749	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.12
US77	10204	148,822	26,749	2,483,647	3.34	3.28	1.77	22.7	22.8	12,386	12,406	193.53	194.15	0.09
US77	32701	148,822	26,749	2,483,647	4.78	4.66	2.51	28.9	29.1	6,800	6,820	106.25	106.87	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	2,255,835	1,145,958	4,790,983	2.67	2.40	10.08	26.5	27.4	26,000	26,299	406.25	415.60	0.19
I10	73901	2,255,835	1,145,958	4,790,983	2.55	2.30	9.67	28.9	29.7	25,000	25,299	390.63	399.97	0.18
I10	50803	2,255,835	1,145,958	4,790,983	2.56	2.31	9.70	26.2	27.0	27,500	27,799	429.69	439.04	0.20
I10	50802	2,255,835	1,145,958	4,790,983	2.56	2.31	9.69	23.8	24.5	30,333	30,632	473.95	483.30	0.22
US90	2807	165,744	146,423	1,436,461	2.65	2.58	2.67	8.1	8.2	25,333	25,355	395.83	396.52	0.18
US90	2806	165,744	146,423	1,436,461	6.02	5.66	5.88	12.7	12.9	7,122	7,144	111.28	111.97	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	78,044	26,749	1,673,506	20.00	18.45	7.74	10.9	11.2	2,900	2,910	90.63	91.27	0.07
FM2925	63003	78,044	26,749	1,673,506	20.00	12.60	36.99	7.7	9.3	587	597	18.34	18.99	0.01
FM508	34204	78,044	26,749	1,673,506	20.00	16.86	15.69	6.6	7.0	2,160	2,170	67.50	68.15	0.05
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	148,822	26,749	5,006,733	9.84	9.59	2.56	29.6	29.8	6,500	6,520	101.56	102.18	0.05
US77	32703	148,822	26,749	5,006,733	10.24	9.97	2.66	30.3	30.5	6,100	6,120	95.31	95.93	0.04
US77	32704	148,822	26,749	5,006,733	10.38	10.10	2.70	30.4	30.6	6,000	6,020	93.75	94.37	0.04
US77	32705	148,822	26,749	5,006,733	9.39	9.16	2.45	30.1	30.3	6,700	6,720	104.69	105.30	0.05
US77	32710	148,822	26,749	1,951,437	3.48	3.40	2.33	25.6	25.8	8,287	8,307	129.48	130.10	0.06
US77	32708	148,822	26,749	1,951,437	13.66	12.49	8.57	5.4	5.6	10,000	10,020	104.17	104.58	0.05
US77	3907	148,822	26,749	1,951,437	1.14	1.13	0.78	23.2	23.3	27,920	27,940	436.25	436.87	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	578	.	761	1,339	4,617	891	765	4,742	0.72	0.47	0.22	0.97	0.00
1	470	70,170	34,979	73,030	143,200	738,699	81,341	88,392	731,647	115.02	42.84	24.97	132.89	0.78
1	480	181	181	185	366	2,051	221	243	2,029	0.32	0.12	0.07	0.37	0.00
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	470	1,074	.	531	1,605	5,353	278	468	5,163	0.83	0.15	0.13	0.85	0.01
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	450	91,536	70,512	45,217	136,753	238,061	12,380	20,801	229,640	37.07	6.52	5.88	37.71	0.25
350	470	60,305	59,371	29,790	90,095	198,112	10,303	17,310	191,104	30.85	5.43	4.89	31.38	0.21
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	450	35,658	28,904	17,614	53,272	87,856	4,569	7,677	84,748	13.68	2.41	2.17	13.92	0.09
360	460	2,468	.	1,219	3,688	6,555	341	573	6,323	1.02	0.18	0.16	1.04	0.01
360	470	1,264	1,264	625	1,889	3,980	207	348	3,839	0.62	0.11	0.10	0.63	0.00
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	470	33,476	33,476	16,537	50,012	64,151	3,336	5,605	61,882	9.99	1.76	1.58	10.16	0.07
400	500	59,737	59,737	29,509	89,246	155,361	8,079	13,575	149,865	24.19	4.26	3.83	24.61	0.16
400	540	3,146	3,146	1,554	4,700	11,455	596	1,001	11,050	1.78	0.31	0.28	1.81	0.01
400	550	166,678	144,697	82,337	249,015	685,398	35,643	59,888	661,154	106.72	18.77	16.91	108.58	0.73
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
450	1	406	.	415	821	3,811	410	451	3,770	0.59	0.22	0.13	0.68	0.00
450	350	102,223	72,398	50,497	152,720	265,856	13,826	23,230	256,452	41.39	7.28	6.56	42.12	0.28
450	360	556	556	275	830	1,369	71	120	1,321	0.21	0.04	0.03	0.22	0.00
460	360	21,003	.	10,375	31,378	55,773	2,900	4,873	53,801	8.68	1.53	1.38	8.84	0.06
460	400	23,354	.	11,537	34,891	33,247	1,729	2,905	32,071	5.18	0.91	0.82	5.27	0.04
470	1	71,170	69,397	332,372	403,542	1,504,190	810,521	538,263	1,776,448	234.20	426.92	152.03	509.09	1.60
470	290	15,136	.	7,477	22,613	74,585	3,879	6,517	71,947	11.61	2.04	1.84	11.82	0.08
470	350	3,952	3,952	1,952	5,904	12,982	675	1,134	12,523	2.02	0.36	0.32	2.06	0.01

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
480	400	5	.	2	7	11	1	1	10	0.00	0.00	0.00	0.00	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
550	400	85,923	82,851	42,445	128,368	352,838	18,349	30,830	340,358	54.94	9.66	8.71	55.89	0.37
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		4,755,604	2,578,792	4,342,386	9,097,990	32,609,135	5,715,350	5,082,353	33,242,132	5,077.26	3,010.38	1,435.47	6,652.17	34.61

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 405 / Brazos River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,926,006	4,297,986	7,237,310	15,163,316	36,232,372	7,441,862	7,474,048	36,200,186	5,641.40	3,919.76	2,110.99	7,450.17	57.68

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
FM1495	58701	352,802	323,907	2,342,909	20.00	10.10	49.49	3.4	4.6	3,600	3,647	112.50	115.42	0.0
FM1764	160701	67,734	40,635	4,149,703	14.52	14.22	2.09	4.5	4.5	24,000	24,009	375.00	375.28	0.2
FM1764	160702	45,156	27,090	4,149,703	20.00	19.58	2.09	3.0	3.0	24,000	24,006	750.00	750.37	0.5
FM360	52706	256,442	227,548	5,014,448	20.00	12.18	39.10	9.2	11.2	1,500	1,534	46.88	49.00	0.0
FM523	100301	37,334	32,148	1,867,826	20.00	18.85	5.75	3.2	3.3	6,625	6,630	207.03	207.34	0.1
I45	11004	63,266	37,955	12,973,790	6.95	6.93	0.30	11.4	11.4	62,000	62,008	968.75	969.01	0.4
I45	11005	55,695	33,413	5,528,218	2.18	2.17	0.20	10.0	10.0	95,667	95,674	1494.8	1495.0	0.6
I45	67508	96,534	57,913	15,422,523	12.91	12.81	0.72	17.4	17.4	26,000	26,013	406.25	406.65	0.1
S134	37602	395,188	191,467	7,009,427	20.00	17.70	11.50	6.5	6.8	15,900	15,952	496.88	500.15	0.3
S146	38905	375,023	181,673	2,496,949	9.75	8.61	11.64	6.2	6.5	15,700	15,750	245.31	246.87	0.1
S146	38906	457,091	221,534	2,496,949	10.65	9.06	14.92	7.5	8.0	11,786	11,847	184.16	186.05	0.1
S146	38912	292,089	141,391	2,496,949	9.98	9.03	9.50	4.8	5.0	19,700	19,739	307.81	309.02	0.2
S197	38911	81,468	48,875	3,294,557	20.00	18.39	8.07	5.4	5.6	5,833	5,844	182.28	182.96	0.1
S288	59804	142,727	122,898	2,655,275	6.85	6.64	3.11	12.2	12.3	12,600	12,619	196.88	197.47	0.1
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.2
S332	58601	94,927	81,740	2,057,202	11.46	10.96	4.41	8.1	8.2	8,767	8,780	273.97	274.76	0.2
S341	62801	90,311	54,180	4,149,703	20.00	18.18	9.12	6.0	6.2	5,100	5,112	79.69	80.06	0.0
S348	68601	168,581	101,136	7,909,001	19.32	18.65	3.46	11.2	11.3	14,500	14,522	453.13	454.52	0.3
S35	17801	1,076,215	610,888	1,764,574	5.81	4.41	24.18	5.3	6.0	21,500	21,643	335.94	340.40	0.2
S35	17802	1,076,215	610,888	2,342,909	10.26	7.21	29.77	6.3	7.2	13,773	13,916	215.20	219.66	0.1
S35	17803	1,076,215	610,888	2,342,909	13.82	8.80	36.35	7.2	8.7	8,900	9,043	139.06	143.52	0.1
S35	17901	1,076,215	610,888	2,342,909	10.29	7.22	29.83	10.4	11.9	8,300	8,443	129.69	134.15	0.1
S35	17902	1,195,929	707,247	2,342,909	10.46	7.06	32.44	10.3	12.0	8,222	8,381	256.94	266.85	0.1
S35	17903	1,195,929	707,247	2,342,909	13.90	8.49	38.96	10.5	12.8	6,067	6,226	189.59	199.51	0.1
S36	18705	376,156	323,907	2,535,398	13.80	11.65	15.55	15.1	16.0	4,600	4,650	143.75	146.87	0.1
S36	18801	376,156	323,907	2,535,398	11.10	9.67	12.90	8.7	9.2	9,900	9,950	309.38	312.49	0.2
S36	18802	376,156	323,907	2,535,398	19.72	15.61	20.83	10.2	11.2	4,750	4,800	148.44	151.56	0.1
S36	18803	376,156	323,907	3,516,385	20.00	16.49	17.53	10.2	10.9	6,013	6,063	187.91	191.02	0.1
S36	18804	376,156	323,907	3,516,385	16.53	14.32	13.35	7.4	7.8	11,367	11,417	355.22	358.34	0.2
S36	18805	376,156	323,907	3,516,385	20.00	15.77	21.13	8.1	8.8	6,000	6,050	187.50	190.62	0.1
S36	18806	376,156	323,907	3,516,385	20.00	16.03	19.85	7.7	8.4	6,820	6,870	213.13	216.24	0.1
S8	325603	794,298	435,458	4,149,703	15.04	11.95	20.57	4.0	4.4	26,067	26,172	271.53	273.73	0.2
S8	325604	794,298	435,458	4,149,703	15.68	12.35	21.26	4.0	4.4	25,000	25,105	260.42	262.61	0.1
S87	37606	453,250	271,915	6,504,983	20.00	14.98	25.09	9.2	10.3	5,000	5,060	156.25	160.01	0.1
US59	17707	3,228,671	1,589,427	4,149,703	2.37	2.04	14.25	6.2	6.6	106,000	106,428	1656.3	1669.6	0.7
US75	5104	453,250	271,915	6,011,120	10.14	9.48	6.43	6.2	6.4	36,000	36,060	562.50	564.38	0.2
US90	2801	99,447	87,854	3,715,330	12.14	11.79	2.84	7.1	7.1	16,375	16,388	255.86	256.27	0.1
US90	2802	99,447	87,854	3,715,330	20.00	19.01	4.95	7.3	7.4	8,900	8,913	139.06	139.47	0.0
US90A	2710	21,115	12,668	3,715,330	13.96	13.86	0.71	3.8	3.8	26,480	26,483	413.75	413.84	0.1

F

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
1495	58701	352,802	323,907	2,342,909	20.00	10.10	49.49	3.4	4.6	3,600	3,647	112.50	115.42	0.08
1764	160701	67,734	40,635	4,149,703	14.52	14.22	2.09	4.5	4.5	24,000	24,009	375.00	375.28	0.27
1764	160702	45,156	27,090	4,149,703	20.00	19.58	2.09	3.0	3.0	24,000	24,006	750.00	750.37	0.54
360	52706	256,442	227,548	5,014,448	20.00	12.18	39.10	9.2	11.2	1,500	1,534	46.88	49.00	0.04
523	100301	37,334	32,148	1,867,826	20.00	18.85	5.75	3.2	3.3	6,625	6,630	207.03	207.34	0.15
5	11004	63,266	37,955	12,973,790	6.95	6.93	0.30	11.4	11.4	62,000	62,008	968.75	969.01	0.44
5	11005	55,695	33,413	5,528,218	2.18	2.17	0.20	10.0	10.0	95,667	95,674	1494.8	1495.0	0.68
5	67508	96,534	57,913	15,422,523	12.91	12.81	0.72	17.4	17.4	26,000	26,013	406.25	406.65	0.18
34	37602	395,188	191,467	7,009,427	20.00	17.70	11.50	6.5	6.8	15,900	15,952	496.88	500.15	0.36
36	38905	375,023	181,673	2,496,949	9.75	8.61	11.64	6.2	6.5	15,700	15,750	245.31	246.87	0.18
36	38906	457,091	221,534	2,496,949	10.65	9.06	14.92	7.5	8.0	11,786	11,847	184.16	186.05	0.13
36	38912	292,089	141,391	2,496,949	9.98	9.03	9.50	4.8	5.0	19,700	19,739	307.81	309.02	0.22
97	38911	81,468	48,875	3,294,557	20.00	18.39	8.07	5.4	5.6	5,833	5,844	182.28	182.96	0.13
38	59804	142,727	122,898	2,655,275	6.85	6.64	3.11	12.2	12.3	12,600	12,619	196.88	197.47	0.14
30	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
32	58601	94,927	81,740	2,057,202	11.46	10.96	4.41	8.1	8.2	8,767	8,780	273.97	274.76	0.20
61	62801	90,311	54,180	4,149,703	20.00	18.18	9.12	6.0	6.2	5,100	5,112	79.69	80.06	0.06
68	68601	168,581	101,136	7,909,001	19.32	18.65	3.46	11.2	11.3	14,500	14,522	453.13	454.52	0.32
5	17801	1,076,215	610,888	1,764,574	5.81	4.41	24.18	5.3	6.0	21,500	21,643	335.94	340.40	0.24
5	17802	1,076,215	610,888	2,342,909	10.26	7.21	29.77	6.3	7.2	13,773	13,916	215.20	219.66	0.16
5	17803	1,076,215	610,888	2,342,909	13.82	8.80	36.35	7.2	8.7	8,900	9,043	139.06	143.52	0.10
5	17901	1,076,215	610,888	2,342,909	10.29	7.22	29.83	10.4	11.9	8,300	8,443	129.69	134.15	0.10
5	17902	1,195,929	707,247	2,342,909	10.46	7.06	32.44	10.3	12.0	8,222	8,381	256.94	266.85	0.19
5	17903	1,195,929	707,247	2,342,909	13.90	8.49	38.96	10.5	12.8	6,067	6,226	189.59	199.51	0.14
5	18705	376,156	323,907	2,535,398	13.80	11.65	15.55	15.1	16.0	4,600	4,650	143.75	146.87	0.10
5	18801	376,156	323,907	2,535,398	11.10	9.67	12.90	8.7	9.2	9,900	9,950	309.38	312.49	0.22
5	18802	376,156	323,907	2,535,398	19.72	15.61	20.83	10.2	11.2	4,750	4,800	148.44	151.56	0.11
5	18803	376,156	323,907	3,516,385	20.00	16.49	17.53	10.2	10.9	6,013	6,063	187.91	191.02	0.14
5	18804	376,156	323,907	3,516,385	16.53	14.32	13.35	7.4	7.8	11,367	11,417	355.22	358.34	0.26
5	18805	376,156	323,907	3,516,385	20.00	15.77	21.13	8.1	8.8	6,000	6,050	187.50	190.62	0.14
5	18806	376,156	323,907	3,516,385	20.00	16.03	19.85	7.7	8.4	6,820	6,870	213.13	216.24	0.15
	325603	794,298	435,458	4,149,703	15.04	11.95	20.57	4.0	4.4	26,067	26,172	271.53	273.73	0.20
	325604	794,298	435,458	4,149,703	15.68	12.35	21.26	4.0	4.4	25,000	25,105	260.42	262.61	0.19
*	37606	453,250	271,915	6,504,983	20.00	14.98	25.09	9.2	10.3	5,000	5,060	156.25	160.01	0.11
69	17707	3,228,671	1,589,427	4,149,703	2.37	2.04	14.25	6.2	6.6	106,000	106,428	1656.3	1669.6	0.76
75	5104	453,250	271,915	6,011,120	10.14	9.48	6.43	6.2	6.4	36,000	36,060	562.50	564.38	0.26
90	2801	99,447	87,854	3,715,330	12.14	11.79	2.84	7.1	7.1	16,375	16,388	255.86	256.27	0.12
90	2802	99,447	87,854	3,715,330	20.00	19.01	4.95	7.3	7.4	8,900	8,913	139.06	139.47	0.06
90A	2710	21,115	12,668	3,715,330	13.96	13.86	0.71	3.8	3.8	26,480	26,483	413.75	413.84	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	230,956	172,371	1,252,801	20.00	7.90	60.48	7.9	12.0	660	691	20.63	22.54	0.02
FM2717	271401	116,847	91,867	2,094,784	20.00	6.38	68.10	7.9	13.5	240	255	7.50	8.47	0.01
FM2760	271403	140,869	110,753	2,568,860	20.00	11.26	43.70	9.5	12.0	660	679	20.63	21.79	0.02
S316	58001	257,717	202,620	1,642,425	20.00	5.77	71.16	4.8	9.0	740	774	23.13	25.26	0.02
S35	17904	1,195,929	707,247	2,276,676	7.94	5.78	27.29	10.5	11.9	10,317	10,476	161.20	166.16	0.12
S35	17906	965,956	534,877	2,276,676	11.85	8.16	31.13	11.8	13.6	6,150	6,278	96.09	100.10	0.07
S35	17907	965,956	534,877	2,276,676	15.25	9.64	36.79	16.4	19.5	3,430	3,558	107.19	115.19	0.08
S35	17908	965,956	534,877	2,276,676	20.00	6.78	66.09	6.4	10.7	2,638	2,766	82.44	90.44	0.06
S35	17909	919,131	534,877	2,276,676	18.12	10.93	39.69	15.3	18.5	3,100	3,222	96.88	104.49	0.07
S35	17910	919,131	534,877	1,795,577	8.02	5.86	26.97	10.0	11.2	8,500	8,622	132.81	136.62	0.10
S35	18001	836,415	470,290	1,795,577	6.49	5.11	21.39	13.1	14.3	7,964	8,075	248.88	255.81	0.18
S60	24101	230,956	172,371	1,952,424	16.05	13.71	14.59	10.8	11.4	4,260	4,291	133.13	135.04	0.10
S60	24102	230,956	172,371	2,276,676	15.73	13.75	12.55	8.7	9.1	6,325	6,356	98.83	99.79	0.07
S60	24103	230,956	172,371	2,276,676	20.00	14.53	27.33	3.6	4.1	5,800	5,831	90.63	91.58	0.07
S60	24104	230,956	172,371	2,276,676	20.00	13.56	32.22	6.9	8.1	2,400	2,431	75.00	76.91	0.05
US59	8905	3,484,130	1,816,976	2,112,832	2.78	1.97	29.18	21.1	23.7	13,600	14,062	212.50	226.94	0.10
US59	8904	3,484,130	1,816,976	2,112,832	2.78	1.97	29.22	21.4	24.0	13,400	13,862	209.38	223.82	0.10
US59	8903	3,484,130	1,816,976	2,112,832	2.39	1.76	26.15	21.8	24.1	15,350	15,812	239.84	254.28	0.12
US59	8901	3,484,130	1,816,976	5,841,189	11.03	6.93	37.19	13.6	16.2	14,767	15,229	230.73	245.17	0.11
US59	8804	3,085,826	1,520,765	5,841,189	11.42	7.40	35.18	15.0	17.6	12,867	13,276	201.05	213.84	0.10
US87	14306	141,521	104,557	5,841,189	20.00	16.90	15.51	9.2	9.8	2,850	2,869	89.06	90.24	0.04
US87	14307	141,521	104,557	5,841,189	20.00	15.29	23.53	9.2	10.2	1,700	1,719	53.13	54.30	0.02
US87	14308	141,521	104,557	8,872,292	20.00	18.40	7.99	9.2	9.5	6,020	6,039	188.13	189.30	0.09
US87	14309	141,521	104,557	8,872,292	20.00	18.46	7.72	10.1	10.4	5,667	5,686	177.09	178.27	0.08
US87	14310	141,521	104,557	5,009,267	19.39	18.48	4.70	11.8	12.0	8,280	8,299	258.75	259.92	0.12
US87	14401	141,521	104,557	5,009,267	20.00	17.98	10.08	6.7	7.0	6,363	6,382	198.84	200.02	0.09
US87	14403	141,521	104,557	2,276,676	20.00	17.64	11.79	7.5	7.9	4,800	4,819	150.00	151.17	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	15,606	8,879	3,436,383	20.00	19.64	1.78	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	18,028	10,257	3,074,361	20.00	19.11	4.44	6.7	6.8	2,000	2,002	62.50	62.65	0.04
S35	18003	47,179	15,963	1,791,737	15.08	14.56	3.45	14.0	14.2	3,200	3,206	100.00	100.39	0.07
S35	18004	47,179	15,963	1,791,737	6.71	6.61	1.56	9.5	9.6	10,592	10,598	331.00	331.39	0.24
S35	18005	47,179	15,963	1,791,737	7.71	7.57	1.79	9.9	10.0	8,867	8,873	277.09	277.48	0.20
S358	61701	2,990,189	1,501,361	2,810,157	5.12	3.45	32.67	4.3	5.1	48,638	49,035	506.65	514.91	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S361	18010	33,634	19,137	1,470,362	9.81	9.62	1.98	10.3	10.4	5,500	5,504	171.88	172.15	0.12
S44	10201	2,990,189	1,501,361	1,316,451	8.73	3.14	64.08	7.4	11.9	7,700	8,097	120.31	132.71	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,481,255	803,070	2,129,917	4.02	3.21	20.09	19.9	21.5	10,043	10,239	156.92	163.06	0.07
US77	37103	1,481,255	803,070	2,129,917	20.00	5.04	74.81	18.8	33.4	900	1,096	14.06	20.20	0.01
US77	37104	3,085,645	1,520,584	2,483,647	6.83	3.87	43.27	18.8	23.1	7,300	7,709	114.06	126.85	0.06
US77	37203	3,079,483	1,517,411	2,483,647	15.17	5.64	62.85	7.8	12.3	7,933	8,341	123.95	136.72	0.06
US77	37201	3,079,483	1,517,411	2,483,647	4.38	2.94	32.82	16.2	18.8	13,200	13,608	206.25	219.01	0.10
US77	37301	3,079,483	1,517,411	1,167,359	1.42	1.06	25.16	16.0	17.7	19,475	19,883	304.30	317.06	0.14
US77	10202	89,293	16,049	1,167,359	1.52	1.51	1.04	20.7	20.8	13,975	13,987	218.36	218.73	0.10
US77	10203	89,293	16,049	1,167,359	1.33	1.32	0.91	20.4	20.4	16,300	16,312	254.69	255.06	0.12
US77	10204	89,293	16,049	2,483,647	3.34	3.30	1.07	22.7	22.8	12,386	12,398	193.53	193.90	0.09
US77	32701	89,293	16,049	2,483,647	4.78	4.70	1.52	28.9	29.0	6,800	6,812	106.25	106.62	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	1,353,501	687,575	4,790,983	2.67	2.50	6.30	26.5	27.0	26,000	26,180	406.25	411.86	0.19
I10	73901	1,353,501	687,575	4,790,983	2.55	2.40	6.04	28.9	29.4	25,000	25,180	390.63	396.23	0.18
I10	50803	1,353,501	687,575	4,790,983	2.56	2.41	6.06	26.2	26.6	27,500	27,680	429.69	435.30	0.20
I10	50802	1,353,501	687,575	4,790,983	2.56	2.40	6.05	23.8	24.2	30,333	30,513	473.95	479.56	0.22
US90	2807	99,447	87,854	1,436,461	2.65	2.60	1.62	8.1	8.1	25,333	25,346	395.83	396.24	0.18
US90	2806	99,447	87,854	1,436,461	6.02	5.80	3.61	12.7	12.8	7,122	7,135	111.28	111.69	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	46,827	16,049	1,673,506	20.00	19.04	4.80	10.9	11.1	2,900	2,906	90.63	91.01	0.07
FM2925	63003	46,827	16,049	1,673,506	20.00	14.79	26.05	7.7	8.7	587	593	18.34	18.73	0.01

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 405 / Brazos River
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

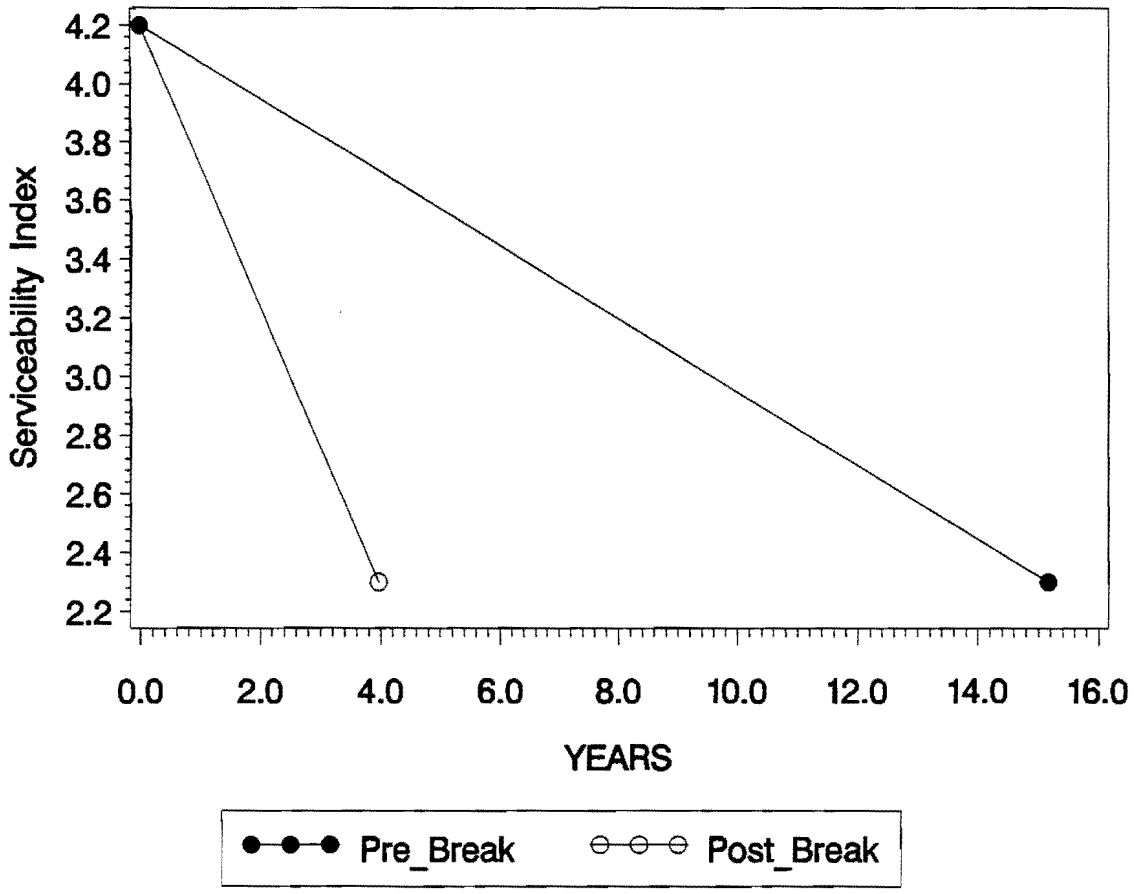
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM508	34204	46,827	16,049	1,673,506	20.00	17.99	10.05	6.6	6.9	2,160	2,166	67.50	67.89	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	89,293	16,049	5,006,733	9.84	9.69	1.55	29.6	29.7	6,500	6,512	101.56	101.93	0.05
US77	32703	89,293	16,049	5,006,733	10.24	10.07	1.62	30.3	30.4	6,100	6,112	95.31	95.68	0.04
US77	32704	89,293	16,049	5,006,733	10.38	10.21	1.64	30.4	30.5	6,000	6,012	93.75	94.12	0.04
US77	32705	89,293	16,049	5,006,733	9.39	9.25	1.48	30.1	30.2	6,700	6,712	104.69	105.06	0.05
US77	32710	89,293	16,049	1,951,437	3.48	3.43	1.41	25.6	25.7	8,287	8,299	129.48	129.85	0.06
US77	32708	89,293	16,049	1,951,437	13.66	12.93	5.32	5.4	5.5	10,000	10,012	104.17	104.41	0.05
US77	3907	89,293	16,049	1,951,437	1.14	1.13	0.47	23.2	23.2	27,920	27,932	436.25	436.62	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX G

Sargent Beach Break Point (418)

PAVEMENT LIFETIME

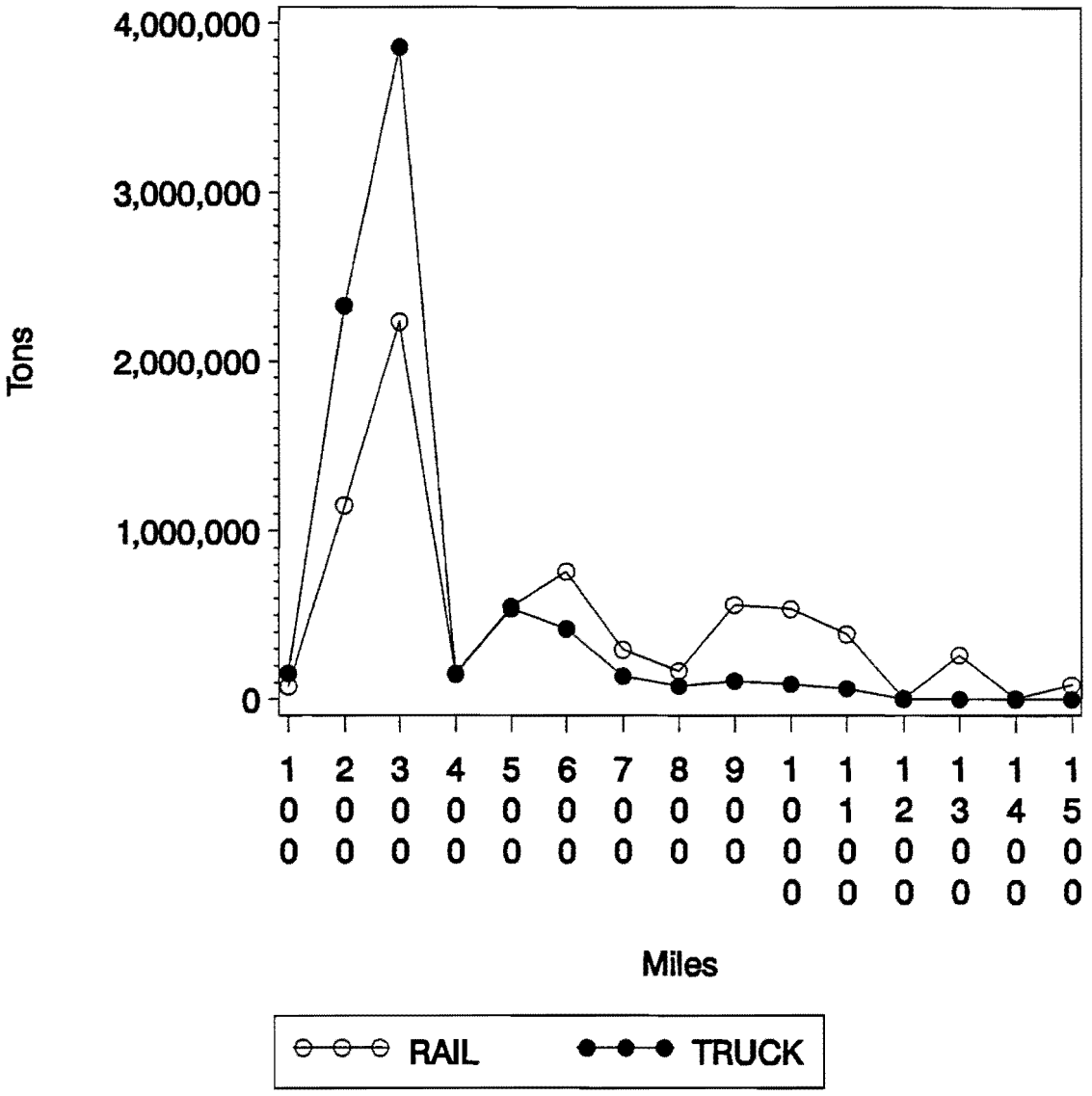
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 418 / Sargent Beach
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

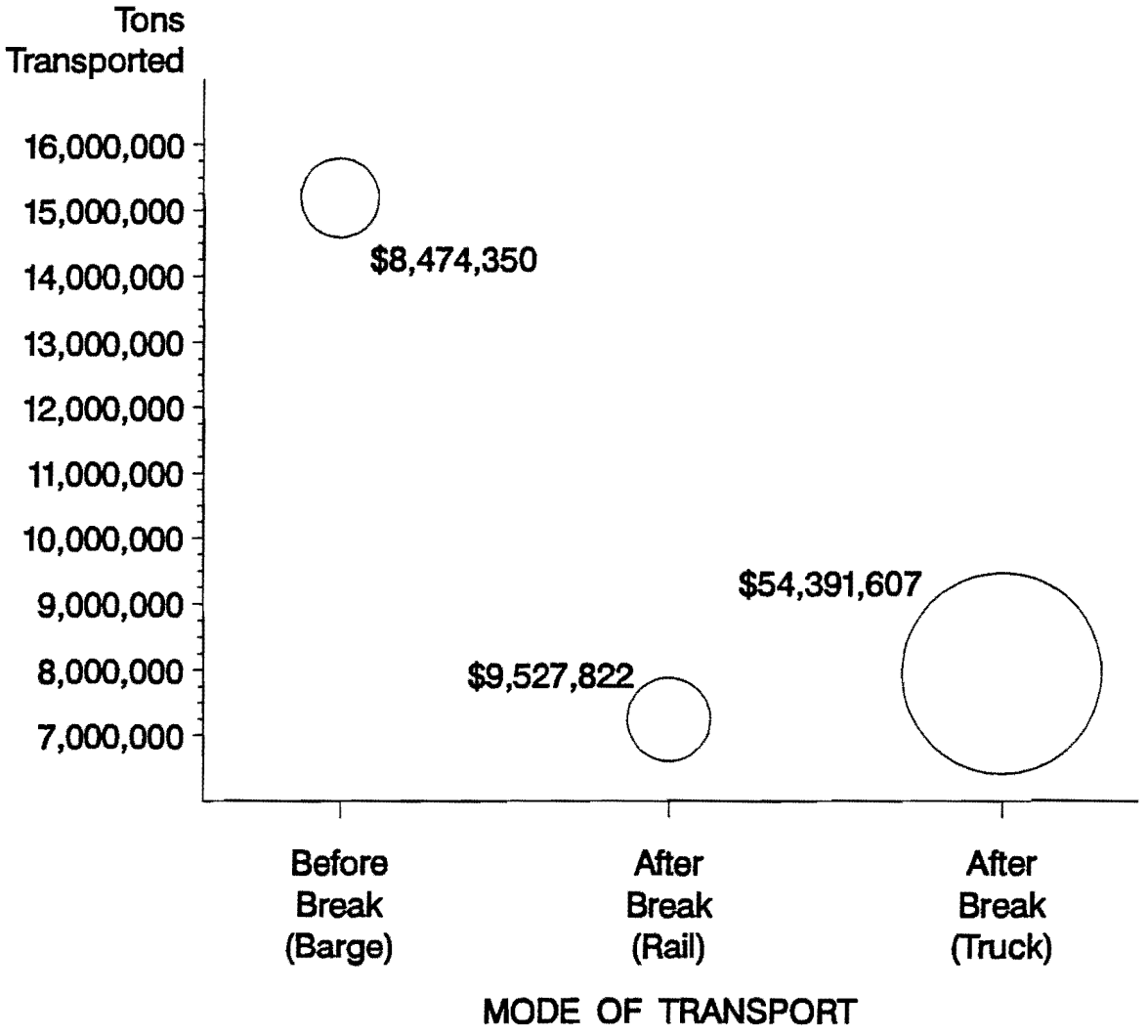
AS A FUNCTION OF DISTANCE

BREAK POINT 418 / Sargent Beach



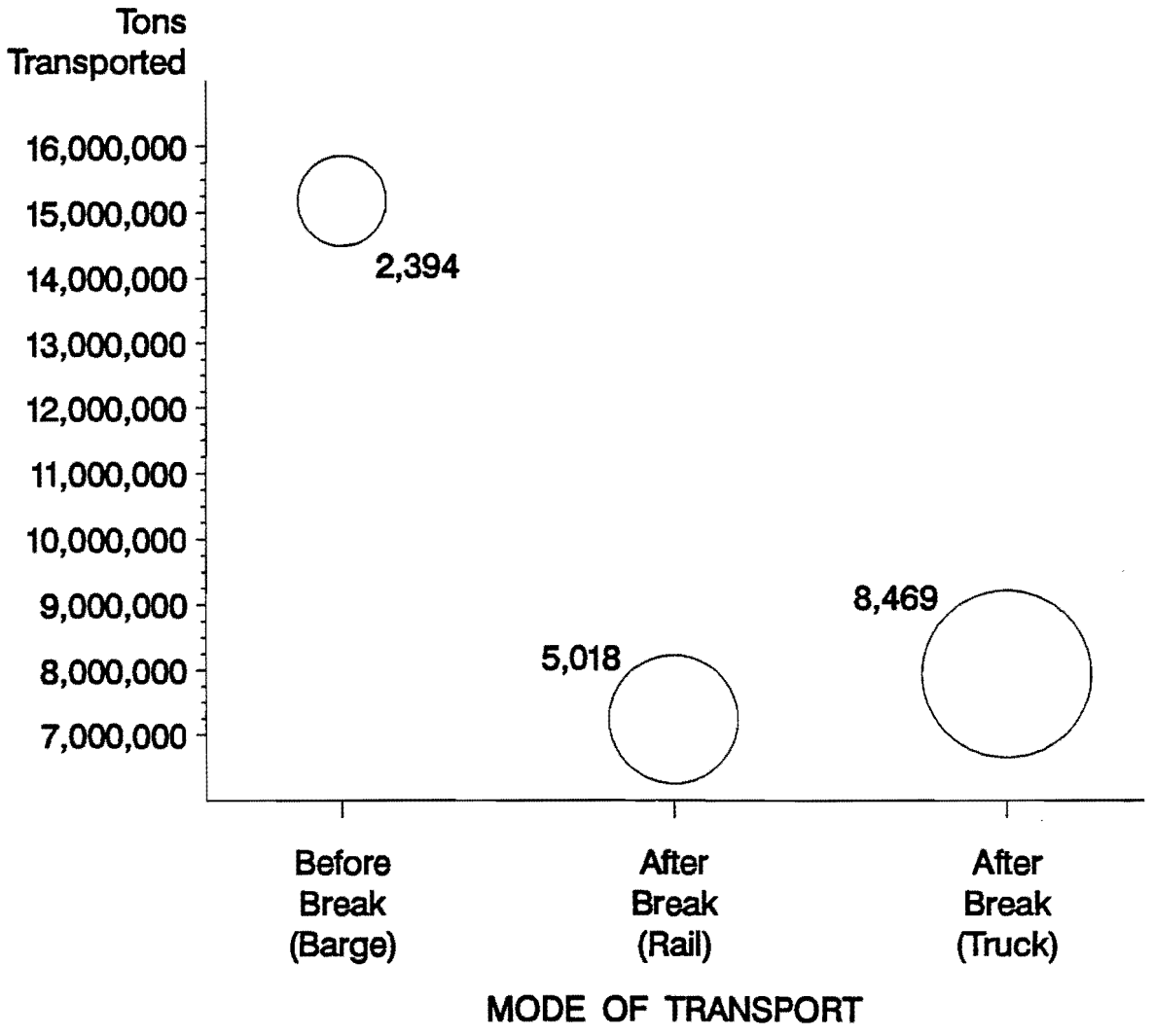
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON – MILES EFFICIENCY
BREAK POINT 418 / Sargent Beach



EMISSIONS (Tons)

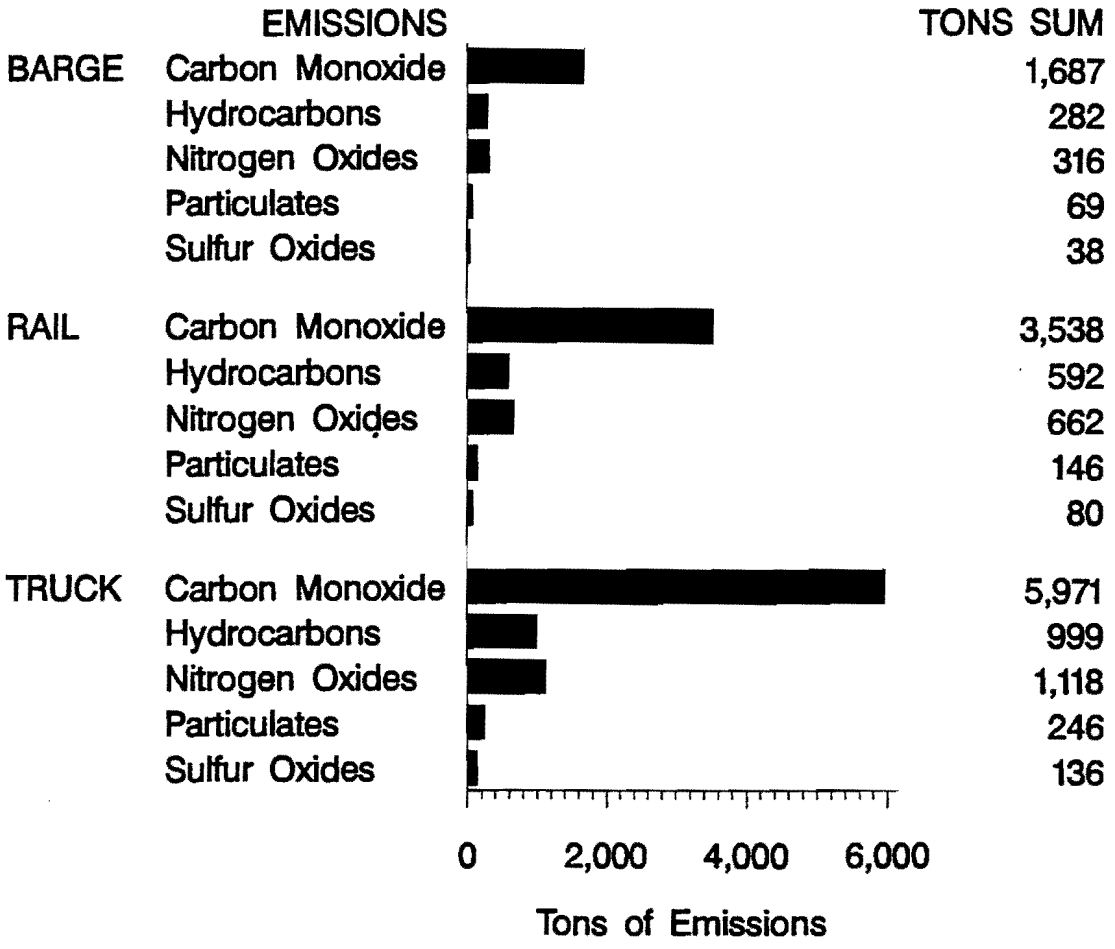
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 418 / Sargent Beach



EMISSIONS (Tons)

LOW END OF TON – MILE EFFICIENCY

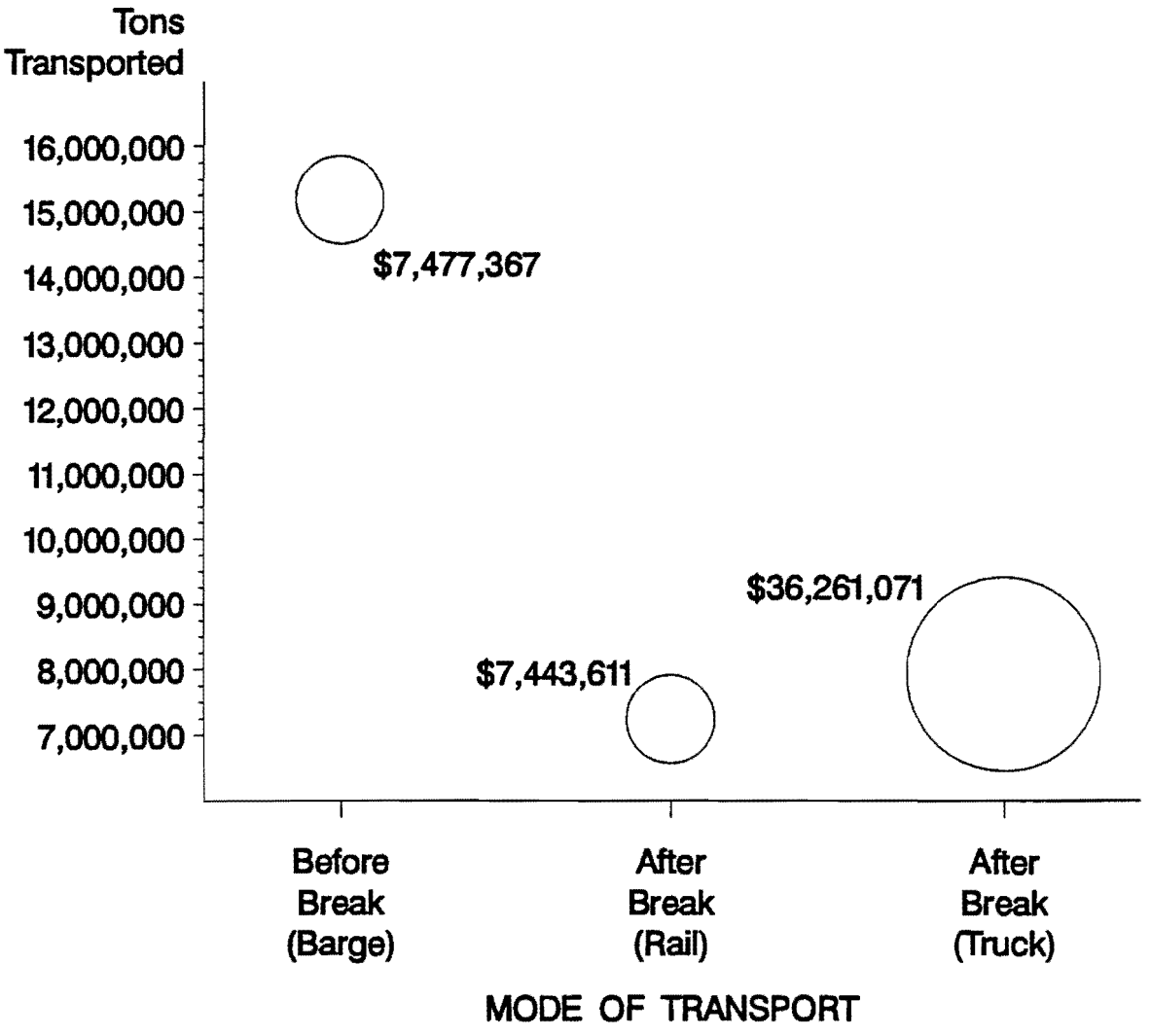
BREAK POINT 418 / Sargent Beach



Note: Barge emissions are pre – break
Rail & Truck emissions are post – break

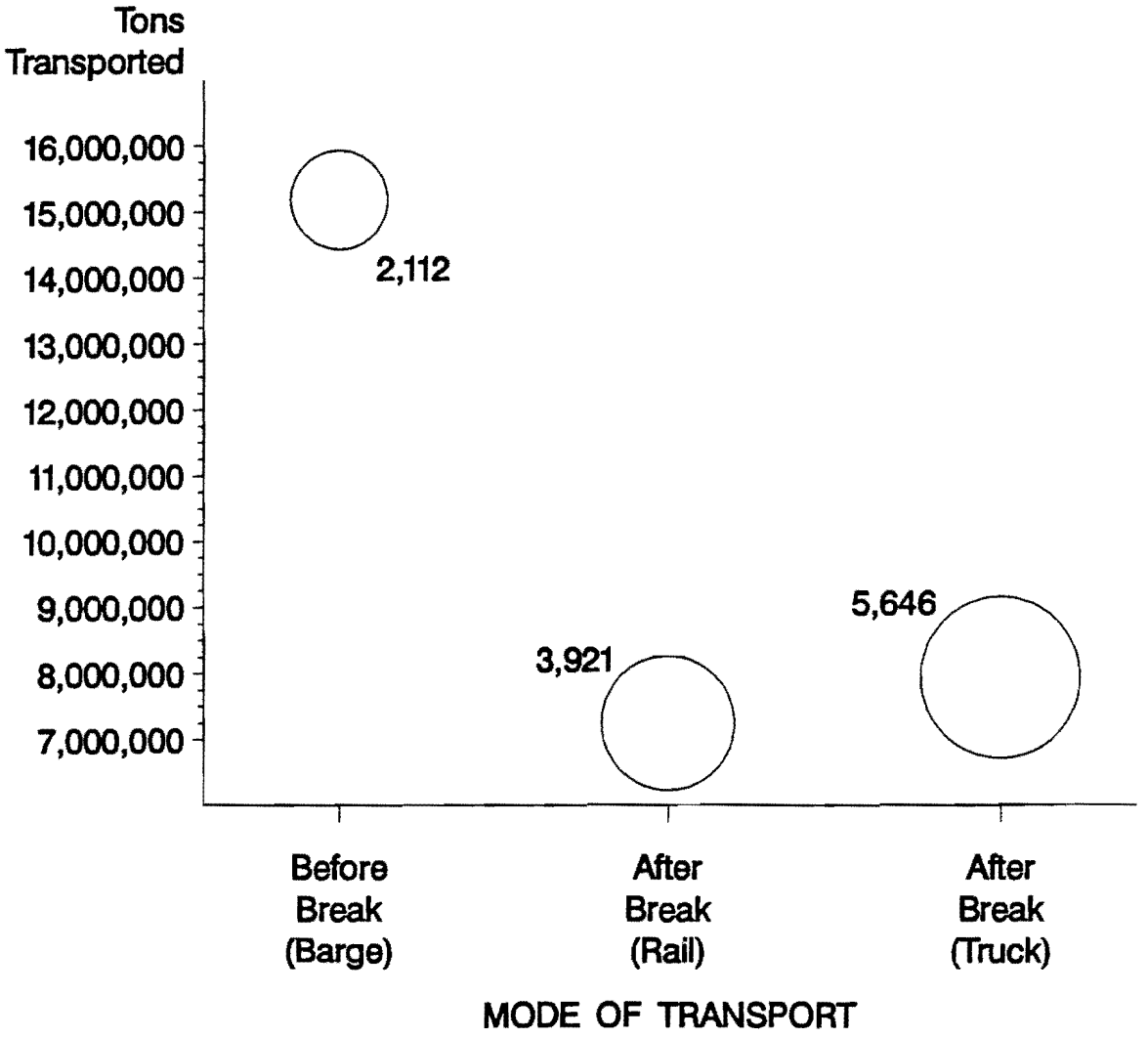
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON – MILES EFFICIENCY
BREAK POINT 418 / Sargent Beach



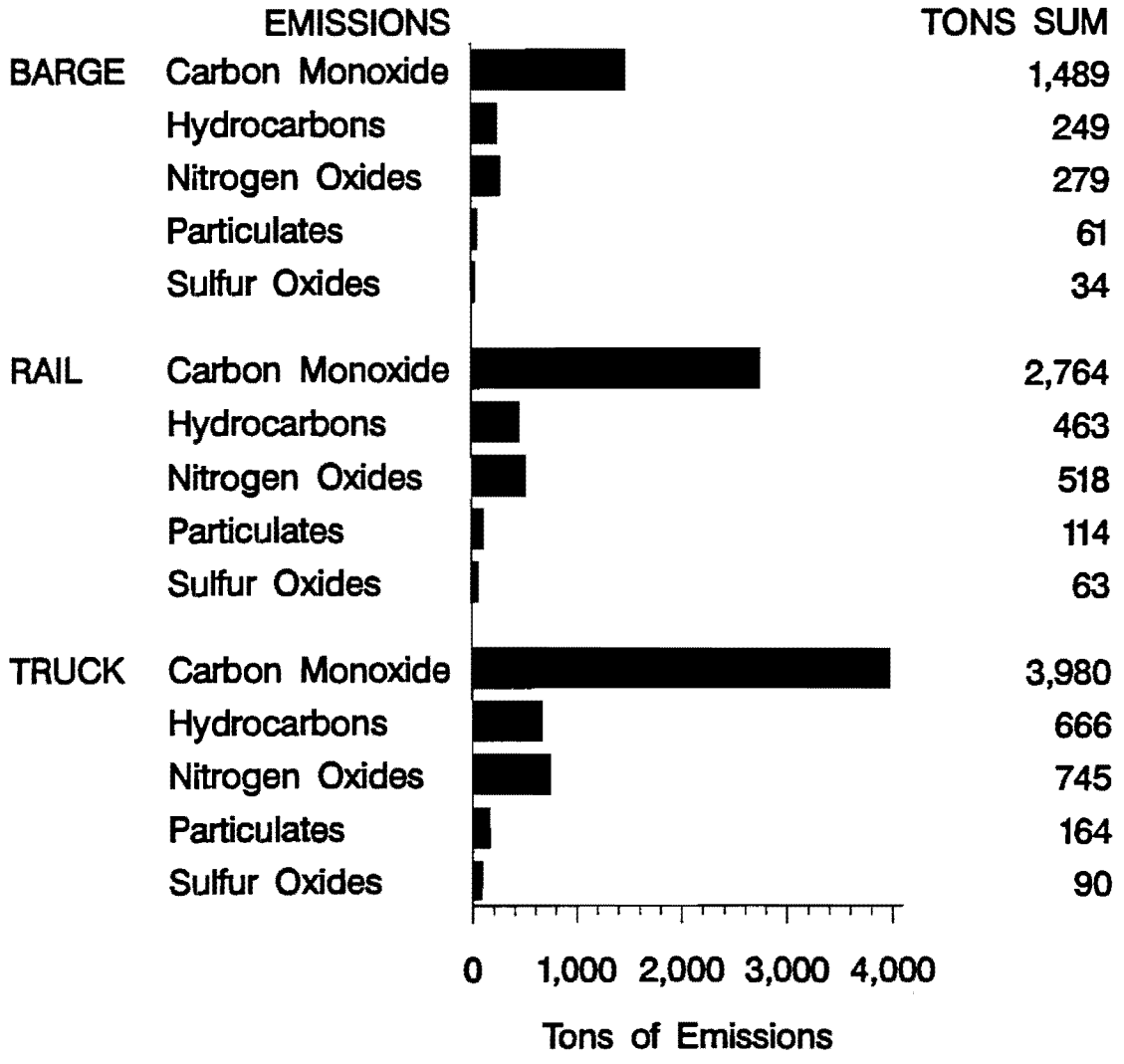
EMISSIONS (Tons)

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON – MILES EFFICIENCY
BREAK POINT 418 / Sargent Beach



EMISSIONS (Tons)

HIGH END OF TON-MILE EFFICIENCY
BREAK POINT 418 / Sargent Beach



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 418 / Sargent Beach

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	7,694	1,485	1,275	7,904	1.20	0.78	0.36	1.62	0.01
1	470	116,950	58,298	121,717	238,667	1,231,165	135,568	147,321	1,219,412	191.69	71.41	41.61	221.49	1.31
1	480	302	302	308	610	3,418	368	404	3,382	0.53	0.19	0.11	0.61	0.00
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	470	1,791	.	884	2,675	8,921	464	780	8,606	1.39	0.24	0.22	1.41	0.01
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	450	152,560	117,520	75,362	227,922	396,768	20,633	34,668	382,734	61.78	10.87	9.79	62.85	0.42
350	470	100,509	98,951	49,650	150,159	330,187	17,171	28,851	318,507	51.41	9.04	8.15	52.31	0.35
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	450	59,430	48,174	29,357	88,787	146,426	7,615	12,794	141,247	22.80	4.01	3.61	23.20	0.16
360	460	4,114	.	2,032	6,146	10,924	568	955	10,538	1.70	0.30	0.27	1.73	0.01
360	470	2,107	2,107	1,041	3,148	6,634	345	580	6,399	1.03	0.18	0.16	1.05	0.01
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	470	55,793	55,793	27,561	83,354	106,918	5,560	9,342	103,136	16.65	2.93	2.64	16.94	0.11
400	500	99,562	99,562	49,182	148,744	258,935	13,466	22,625	249,776	40.32	7.09	6.39	41.02	0.27
400	540	5,244	5,244	2,590	7,834	19,092	993	1,668	18,417	2.97	0.52	0.47	3.02	0.02
400	550	277,797	241,162	137,228	415,025	1,142,330	59,406	99,813	1,101,923	177.86	31.29	28.19	180.96	1.21
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
410	550	6,637	5,089	3,278	9,915	26,344	1,370	2,302	25,413	4.10	0.72	0.65	4.17	0.03
450	1	676	.	692	1,368	6,352	684	751	6,284	0.99	0.36	0.21	1.14	0.01
450	350	170,372	120,664	84,161	254,533	443,093	23,043	38,716	427,420	68.99	12.14	10.94	70.19	0.47
450	360	926	926	458	1,384	2,282	119	199	2,202	0.36	0.06	0.06	0.36	0.00
460	360	35,005	.	17,292	52,297	92,956	4,834	8,122	89,668	14.47	2.55	2.29	14.73	0.10
460	400	38,924	.	19,228	58,152	55,411	2,882	4,842	53,451	8.63	1.52	1.37	8.78	0.06
470	1	118,616	115,662	553,954	672,570	2,506,983	1,350,869	897,105	2,960,747	390.34	711.53	253.38	848.48	2.66
470	290	25,226	.	12,462	37,688	124,309	6,465	10,862	119,912	19.36	3.40	3.07	19.69	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 418 / Sargent Beach

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	21,637	1,125	1,891	20,872	3.37	0.59	0.53	3.43	0.02
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
480	400	8	.	4	12	18	1	2	17	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
550	400	143,205	138,085	70,742	213,947	588,064	30,582	51,383	567,263	91.56	16.11	14.51	93.16	0.62
550	410	4,208	4,208	2,079	6,287	16,705	869	1,460	16,114	2.60	0.46	0.41	2.65	0.02
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	54,391,607	9,527,822	8,474,350	55,445,079	8,468.81	5,018.47	2,393.52	11,093.76	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 418 / Sargent Beach

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 418 / Sargent Beach

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	36,261,071	7,443,611	7,477,367	36,227,315	5,645.87	3,920.68	2,111.93	7,454.62	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	588,004	539,846	2,342,909	20.00	7.59	62.03	3.4	5.4	3,600	3,678	112.50	117.37	0.08
FM1764	160701	112,889	67,725	4,149,703	14.52	14.02	3.43	4.5	4.6	24,000	24,015	375.00	375.47	0.27
FM1764	160702	75,259	45,150	4,149,703	20.00	19.31	3.43	3.0	3.0	24,000	24,010	750.00	750.62	0.54
FM2918	293901	10,845	9,297	4,334,935	20.00	18.07	9.67	7.0	7.3	500	501	15.63	15.71	0.01
FM360	52706	438,249	388,544	5,014,448	20.00	9.54	52.32	9.2	12.6	1,500	1,558	46.88	50.51	0.04
FM523	100301	62,224	53,580	1,867,826	20.00	18.15	9.23	3.2	3.3	6,625	6,633	207.03	207.55	0.15
I45	11004	105,444	63,258	12,973,790	6.95	6.91	0.51	11.4	11.4	62,000	62,014	968.75	969.19	0.44
I45	11005	92,825	55,688	5,528,218	2.18	2.17	0.33	10.0	10.0	95,667	95,679	1494.8	1495.2	0.68
I45	67508	160,890	96,522	15,422,523	12.91	12.75	1.20	17.4	17.4	26,000	26,021	406.25	406.92	0.18
S134	37602	658,647	319,112	7,009,427	20.00	16.44	17.81	6.5	7.0	15,900	15,987	496.88	502.33	0.36
S146	38905	625,039	302,788	2,496,949	9.75	7.99	18.00	6.2	6.7	15,700	15,783	245.31	247.90	0.18
S146	38906	761,818	369,223	2,496,949	10.65	8.24	22.61	7.5	8.3	11,786	11,887	184.16	187.31	0.13
S146	38912	486,814	235,652	2,496,949	9.98	8.49	14.90	4.8	5.1	19,700	19,765	307.81	309.83	0.22
S197	38911	135,781	81,458	3,294,557	20.00	17.45	12.76	5.4	5.7	5,833	5,851	182.28	183.41	0.13
S288	59804	237,879	204,830	2,655,275	6.85	6.50	5.08	12.2	12.4	12,600	12,632	196.88	197.86	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	158,211	136,233	2,057,202	11.46	10.65	7.14	8.1	8.3	8,767	8,788	273.97	275.28	0.20
S341	62801	150,519	90,300	4,149,703	20.00	17.13	14.33	6.0	6.4	5,100	5,120	79.69	80.31	0.06
S348	68601	280,969	168,560	7,909,001	19.32	18.23	5.64	11.2	11.4	14,500	14,537	453.13	455.45	0.33
S35	17801	1,793,692	1,018,147	1,764,574	5.81	3.80	34.71	5.3	6.4	21,500	21,738	335.94	343.37	0.25
S35	17802	1,793,692	1,018,147	2,342,909	10.26	6.01	41.40	6.3	7.9	13,773	14,011	215.20	222.64	0.16
S35	17803	1,793,692	1,018,147	2,342,909	13.82	7.08	48.76	7.2	9.6	8,900	9,138	139.06	146.50	0.10
S35	17901	1,793,692	1,018,147	2,342,909	10.29	6.02	41.46	10.4	12.9	8,300	8,538	129.69	137.12	0.10
S35	17902	1,993,215	1,178,745	2,342,909	10.46	5.81	44.45	10.3	13.1	8,222	8,486	256.94	273.46	0.20
S35	17903	1,993,215	1,178,745	2,342,909	13.90	6.74	51.55	10.5	14.2	6,067	6,331	189.59	206.12	0.15
S36	18705	637,771	549,143	2,535,398	13.80	10.51	23.79	15.1	16.6	4,600	4,685	143.75	149.04	0.11
S36	18801	637,771	549,143	2,535,398	11.10	8.87	20.07	8.7	9.5	9,900	9,985	309.38	314.66	0.22
S36	18802	637,771	549,143	2,535,398	19.72	13.64	30.85	10.2	11.8	4,750	4,835	148.44	153.72	0.11
S36	18803	637,771	549,143	3,516,385	20.00	14.70	26.50	10.2	11.4	6,013	6,098	187.91	193.19	0.14
S36	18804	637,771	549,143	3,516,385	16.53	13.10	20.72	7.4	8.1	11,367	11,452	355.22	360.51	0.26
S36	18805	637,771	549,143	3,516,385	20.00	13.75	31.24	8.1	9.4	6,000	6,085	187.50	192.79	0.14
S36	18806	637,771	549,143	3,516,385	20.00	14.08	29.58	7.7	8.8	6,820	6,905	213.13	218.41	0.16
S8	325603	1,323,830	725,763	4,149,703	15.04	10.51	30.15	4.0	4.6	26,067	26,243	271.53	275.19	0.20
S8	325604	1,323,830	725,763	4,149,703	15.68	10.82	31.04	4.0	4.7	25,000	25,176	260.42	264.07	0.19
S87	37606	755,417	453,192	6,504,983	20.00	12.83	35.83	9.2	11.0	5,000	5,100	156.25	162.51	0.12
US59	17707	5,381,119	2,649,046	4,149,703	2.37	1.86	21.69	6.2	6.9	106,000	106,714	1656.3	1678.6	0.76
US75	5104	755,417	453,192	6,011,120	10.14	9.09	10.28	6.2	6.5	36,000	36,100	562.50	565.63	0.26
US90	2801	165,744	146,423	3,715,330	12.14	11.57	4.64	7.1	7.2	16,375	16,397	255.86	256.55	0.12
US90	2802	165,744	146,423	3,715,330	20.00	18.40	7.98	7.3	7.5	8,900	8,922	139.06	139.75	0.06
US90A	2710	35,192	21,113	3,715,330	13.96	13.79	1.18	3.8	3.8	26,480	26,485	413.75	413.90	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	384,927	287,284	1,252,801	20.00	5.63	71.84	7.9	14.5	660	711	20.63	23.82	0.02
FM2717	271401	194,746	153,111	2,094,784	20.00	4.39	78.06	7.9	16.8	240	266	7.50	9.11	0.01
FM2760	271403	234,782	184,588	2,568,860	20.00	8.72	56.40	9.5	13.6	660	691	20.63	22.57	0.02
S316	58001	429,528	337,699	1,642,425	20.00	3.91	80.44	4.8	11.6	740	797	23.13	26.69	0.02
S35	17904	1,993,215	1,178,745	2,276,676	7.94	4.89	38.48	10.5	12.7	10,317	10,581	161.20	169.46	0.12
S35	17906	1,609,927	891,461	2,276,676	11.85	6.76	42.97	11.8	14.8	6,150	6,364	96.09	102.77	0.07
S35	17907	1,609,927	891,461	2,276,676	15.25	7.74	49.24	16.4	21.3	3,430	3,644	107.19	120.53	0.09
S35	17908	1,609,927	891,461	2,276,676	20.00	4.71	76.46	6.4	13.4	2,638	2,852	82.44	95.78	0.07
S35	17909	1,531,884	891,461	2,276,676	18.12	8.64	52.31	15.3	20.5	3,100	3,303	96.88	109.57	0.08
S35	17910	1,531,884	891,461	1,795,577	8.02	4.96	38.09	10.0	12.1	8,500	8,703	132.81	139.16	0.10
S35	18001	1,394,026	783,816	1,795,577	6.49	4.47	31.20	13.1	15.1	7,964	8,149	248.88	260.43	0.19
S60	24101	384,927	287,284	1,952,424	16.05	12.50	22.16	10.8	11.8	4,260	4,311	133.13	136.32	0.10
S60	24102	384,927	287,284	2,276,676	15.73	12.69	19.30	8.7	9.4	6,325	6,376	98.83	100.42	0.07
S60	24103	384,927	287,284	2,276,676	20.00	12.29	38.53	3.6	4.4	5,800	5,851	90.63	92.22	0.07
S60	24104	384,927	287,284	2,276,676	20.00	11.16	44.21	6.9	8.8	2,400	2,451	75.00	78.19	0.06
US59	8905	5,817,728	3,037,590	2,112,832	2.78	1.65	40.76	21.1	25.4	13,600	14,372	212.50	236.61	0.11
US59	8904	5,817,728	3,037,590	2,112,832	2.78	1.65	40.80	21.4	25.7	13,400	14,172	209.38	233.49	0.11
US59	8903	5,817,728	3,037,590	2,112,832	2.39	1.50	37.15	21.8	25.5	15,350	16,122	239.84	263.96	0.12
US59	8901	5,817,728	3,037,590	5,841,189	11.03	5.55	49.71	13.6	17.8	14,767	15,539	230.73	254.85	0.12
US59	8804	5,153,889	2,543,906	5,841,189	11.42	5.99	47.54	15.0	19.3	12,867	13,551	201.05	222.41	0.10
US87	14306	235,868	174,261	5,841,189	20.00	15.32	23.42	9.2	10.2	2,850	2,881	89.06	91.02	0.04
US87	14307	235,868	174,261	5,841,189	20.00	13.22	33.90	9.2	10.8	1,700	1,731	53.13	55.08	0.03
US87	14308	235,868	174,261	8,872,292	20.00	17.47	12.65	9.2	9.7	6,020	6,051	188.13	190.08	0.09
US87	14309	235,868	174,261	8,872,292	20.00	17.55	12.24	10.1	10.6	5,667	5,698	177.09	179.05	0.08
US87	14310	235,868	174,261	5,009,267	19.39	17.92	7.59	11.8	12.1	8,280	8,311	258.75	260.71	0.12
US87	14401	235,868	174,261	5,009,267	20.00	16.85	15.74	6.7	7.2	6,363	6,394	198.84	200.80	0.09
US87	14403	235,868	174,261	2,276,676	20.00	16.36	18.22	7.5	8.1	4,800	4,831	150.00	151.96	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	26,010	14,799	3,436,383	20.00	19.41	2.93	5.8	5.9	5,100	5,103	79.69	79.80	0.06
FM2725	275601	30,046	17,095	3,074,361	20.00	18.56	7.19	6.7	6.9	2,000	2,004	62.50	62.75	0.04
S35	18003	78,632	26,605	1,791,737	15.08	14.23	5.62	14.0	14.3	3,200	3,210	100.00	100.65	0.07
S35	18004	78,632	26,605	1,791,737	6.71	6.54	2.58	9.5	9.6	10,592	10,602	331.00	331.65	0.24
S35	18005	78,632	26,605	1,791,737	7.71	7.48	2.95	9.9	10.0	8,867	8,877	277.09	277.75	0.20
S358	61701	4,994,494	2,511,566	2,810,157	5.12	2.83	44.77	4.3	5.6	48,638	49,300	506.65	520.45	0.37
S361	18010	56,056	31,894	1,470,362	9.81	9.49	3.25	10.3	10.4	5,500	5,507	171.88	172.34	0.12

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach

DISTRICT=CORPUS CHRISTI DISTRICT (continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S44	10201	4,994,494	2,511,566	1,316,451	8.73	2.19	74.88	7.4	14.7	7,700	8,362	120.31	141.01	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,479,603	1,347,747	2,129,917	4.02	2.83	29.62	19.9	22.5	10,043	10,372	156.92	167.20	0.08
US77	37103	2,479,603	1,347,747	2,129,917	20.00	3.35	83.25	18.8	40.6	900	1,229	14.06	24.34	0.01
US77	37104	5,153,587	2,543,604	2,483,647	6.83	3.00	56.02	18.8	25.8	7,300	7,983	114.06	135.42	0.06
US77	37203	5,143,316	2,538,315	2,483,647	15.17	3.97	73.86	7.8	15.1	7,933	8,615	123.95	145.27	0.07
US77	37201	5,143,316	2,538,315	2,483,647	4.38	2.41	44.93	16.2	20.4	13,200	13,882	206.25	227.57	0.10
US77	37301	5,143,316	2,538,315	1,167,359	1.42	0.91	35.96	16.0	18.8	19,475	20,157	304.30	325.61	0.15
US77	10202	148,822	26,749	1,167,359	1.52	1.50	1.72	20.7	20.8	13,975	13,995	218.36	218.98	0.10
US77	10203	148,822	26,749	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.12
US77	10204	148,822	26,749	2,483,647	3.34	3.28	1.77	22.7	22.8	12,386	12,406	193.53	194.15	0.09
US77	32701	148,822	26,749	2,483,647	4.78	4.66	2.51	28.9	29.1	6,800	6,820	106.25	106.87	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	2,255,835	1,145,958	4,790,983	2.67	2.40	10.08	26.5	27.4	26,000	26,299	406.25	415.60	0.19
I10	73901	2,255,835	1,145,958	4,790,983	2.55	2.30	9.67	28.9	29.7	25,000	25,299	390.63	399.97	0.18
I10	50803	2,255,835	1,145,958	4,790,983	2.56	2.31	9.70	26.2	27.0	27,500	27,799	429.69	439.04	0.20
I10	50802	2,255,835	1,145,958	4,790,983	2.56	2.31	9.69	23.8	24.5	30,333	30,632	473.95	483.30	0.22
US90	2807	165,744	146,423	1,436,461	2.65	2.58	2.67	8.1	8.2	25,333	25,355	395.83	396.52	0.18
US90	2806	165,744	146,423	1,436,461	6.02	5.66	5.88	12.7	12.9	7,122	7,144	111.28	111.97	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	78,044	26,749	1,673,506	20.00	18.45	7.74	10.9	11.2	2,900	2,910	90.63	91.27	0.07
FM2925	63003	78,044	26,749	1,673,506	20.00	12.60	36.99	7.7	9.3	587	597	18.34	18.99	0.01
FM508	34204	78,044	26,749	1,673,506	20.00	16.86	15.69	6.6	7.0	2,160	2,170	67.50	68.15	0.05
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	148,822	26,749	5,006,733	9.84	9.59	2.56	29.6	29.8	6,500	6,520	101.56	102.18	0.05
US77	32703	148,822	26,749	5,006,733	10.24	9.97	2.66	30.3	30.5	6,100	6,120	95.31	95.93	0.04
US77	32704	148,822	26,749	5,006,733	10.38	10.10	2.70	30.4	30.6	6,000	6,020	93.75	94.37	0.04
US77	32705	148,822	26,749	5,006,733	9.39	9.16	2.45	30.1	30.3	6,700	6,720	104.69	105.30	0.05
US77	32710	148,822	26,749	1,951,437	3.48	3.40	2.33	25.6	25.8	8,287	8,307	129.48	130.10	0.06
US77	32708	148,822	26,749	1,951,437	13.66	12.49	8.57	5.4	5.6	10,000	10,020	104.17	104.58	0.05
US77	3907	148,822	26,749	1,951,437	1.14	1.13	0.78	23.2	23.3	27,920	27,940	436.25	436.87	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 418 / Sargent Beach

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	578	.	761	1,339	4,617	891	765	4,742	0.72	0.47	0.22	0.97	0.00
1	470	70,170	34,979	73,030	143,200	738,699	81,341	88,392	731,647	115.02	42.84	24.97	132.89	0.78
1	480	181	181	185	366	2,051	221	243	2,029	0.32	0.12	0.07	0.37	0.00
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	470	1,074	.	531	1,605	5,353	278	468	5,163	0.83	0.15	0.13	0.85	0.01
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	450	91,536	70,512	45,217	136,753	238,061	12,380	20,801	229,640	37.07	6.52	5.88	37.71	0.25
350	470	60,305	59,371	29,790	90,095	198,112	10,303	17,310	191,104	30.85	5.43	4.89	31.38	0.21
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	450	35,658	28,904	17,614	53,272	87,856	4,569	7,677	84,748	13.68	2.41	2.17	13.92	0.09
360	460	2,468	.	1,219	3,688	6,555	341	573	6,323	1.02	0.18	0.16	1.04	0.01
360	470	1,264	1,264	625	1,889	3,980	207	348	3,839	0.62	0.11	0.10	0.63	0.00
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	470	33,476	33,476	16,537	50,012	64,151	3,336	5,605	61,882	9.99	1.76	1.58	10.16	0.07
400	500	59,737	59,737	29,509	89,246	155,361	8,079	13,575	149,865	24.19	4.26	3.83	24.61	0.16
400	540	3,146	3,146	1,554	4,700	11,455	596	1,001	11,050	1.78	0.31	0.28	1.81	0.01
400	550	166,678	144,697	82,337	249,015	685,398	35,643	59,888	661,154	106.72	18.77	16.91	108.58	0.73
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
410	550	3,982	3,053	1,967	5,949	15,807	822	1,381	15,248	2.46	0.43	0.39	2.50	0.02
450	1	406	.	415	821	3,811	410	451	3,770	0.59	0.22	0.13	0.68	0.00
450	350	102,223	72,398	50,497	152,720	265,856	13,826	23,230	256,452	41.39	7.28	6.56	42.12	0.28
450	360	556	556	275	830	1,369	71	120	1,321	0.21	0.04	0.03	0.22	0.00
460	360	21,003	.	10,375	31,378	55,773	2,900	4,873	53,801	8.68	1.53	1.38	8.84	0.06
460	400	23,354	.	11,537	34,891	33,247	1,729	2,905	32,071	5.18	0.91	0.82	5.27	0.04
470	1	71,170	69,397	332,372	403,542	1,504,190	810,521	538,263	1,776,448	234.20	426.92	152.03	509.09	1.60
470	290	15,136	.	7,477	22,613	74,585	3,879	6,517	71,947	11.61	2.04	1.84	11.82	0.08

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 418 / Sargent Beach

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	3,952	3,952	1,952	5,904	12,982	675	1,134	12,523	2.02	0.36	0.32	2.06	0.01
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
480	400	5	.	2	7	11	1	1	10	0.00	0.00	0.00	0.00	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
550	400	85,923	82,851	42,445	128,368	352,838	18,349	30,830	340,358	54.94	9.66	8.71	55.89	0.37
550	410	2,525	2,525	1,247	3,772	10,023	521	876	9,668	1.56	0.27	0.25	1.59	0.01
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		4,762,111	2,584,370	4,345,600	9,107,711	32,634,964	5,716,693	5,084,610	33,267,048	5,081.29	3,011.08	1,436.11	6,656.26	34.64

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 418 / Sargent Beach

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 418 / Sargent Beach

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	36,261,071	7,443,611	7,477,367	36,227,315	5,645.87	3,920.68	2,111.93	7,454.62	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	352,802	323,907	2,342,909	20.00	10.10	49.49	3.4	4.6	3,600	3,647	112.50	115.42	0.08
FM1764	160701	67,734	40,635	4,149,703	14.52	14.22	2.09	4.5	4.5	24,000	24,009	375.00	375.28	0.27
FM1764	160702	45,156	27,090	4,149,703	20.00	19.58	2.09	3.0	3.0	24,000	24,006	750.00	750.37	0.54
FM2918	293901	6,507	5,578	4,334,935	20.00	18.79	6.04	7.0	7.2	500	501	15.63	15.68	0.01
FM360	52706	262,949	233,127	5,014,448	20.00	12.06	39.70	9.2	11.3	1,500	1,535	46.88	49.05	0.04
FM523	100301	37,334	32,148	1,867,826	20.00	18.85	5.75	3.2	3.3	6,625	6,630	207.03	207.34	0.15
I45	11004	63,266	37,955	12,973,790	6.95	6.93	0.30	11.4	11.4	62,000	62,008	968.75	969.01	0.44
I45	11005	55,695	33,413	5,528,218	2.18	2.17	0.20	10.0	10.0	95,667	95,674	1494.8	1495.0	0.68
I45	67508	96,534	57,913	15,422,523	12.91	12.81	0.72	17.4	17.4	26,000	26,013	406.25	406.65	0.18
S134	37602	395,188	191,467	7,009,427	20.00	17.70	11.50	6.5	6.8	15,900	15,952	496.88	500.15	0.36
S146	38905	375,023	181,673	2,496,949	9.75	8.61	11.64	6.2	6.5	15,700	15,750	245.31	246.87	0.18
S146	38906	457,091	221,534	2,496,949	10.65	9.06	14.92	7.5	8.0	11,786	11,847	184.16	186.05	0.13
S146	38912	292,089	141,391	2,496,949	9.98	9.03	9.50	4.8	5.0	19,700	19,739	307.81	309.02	0.22
S197	38911	81,468	48,875	3,294,557	20.00	18.39	8.07	5.4	5.6	5,833	5,844	182.28	182.96	0.13
S288	59804	142,727	122,898	2,655,275	6.85	6.64	3.11	12.2	12.3	12,600	12,619	196.88	197.47	0.14
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
S332	58601	94,927	81,740	2,057,202	11.46	10.96	4.41	8.1	8.2	8,767	8,780	273.97	274.76	0.20
S341	62801	90,311	54,180	4,149,703	20.00	18.18	9.12	6.0	6.2	5,100	5,112	79.69	80.06	0.06
S348	68601	168,581	101,136	7,909,001	19.32	18.65	3.46	11.2	11.3	14,500	14,522	453.13	454.52	0.32
S35	17801	1,076,215	610,888	1,764,574	5.81	4.41	24.18	5.3	6.0	21,500	21,643	335.94	340.40	0.24
S35	17802	1,076,215	610,888	2,342,909	10.26	7.21	29.77	6.3	7.2	13,773	13,916	215.20	219.66	0.16
S35	17803	1,076,215	610,888	2,342,909	13.82	8.80	36.35	7.2	8.7	8,900	9,043	139.06	143.52	0.10
S35	17901	1,076,215	610,888	2,342,909	10.29	7.22	29.83	10.4	11.9	8,300	8,443	129.69	134.15	0.10
S35	17902	1,195,929	707,247	2,342,909	10.46	7.06	32.44	10.3	12.0	8,222	8,381	256.94	266.85	0.19
S35	17903	1,195,929	707,247	2,342,909	13.90	8.49	38.96	10.5	12.8	6,067	6,226	189.59	199.51	0.14
S36	18705	382,663	329,486	2,535,398	13.80	11.62	15.78	15.1	16.0	4,600	4,651	143.75	146.92	0.10
S36	18801	382,663	329,486	2,535,398	11.10	9.64	13.09	8.7	9.2	9,900	9,951	309.38	312.55	0.22
S36	18802	382,663	329,486	2,535,398	19.72	15.56	21.12	10.2	11.2	4,750	4,801	148.44	151.61	0.11
S36	18803	382,663	329,486	3,516,385	20.00	16.44	17.78	10.2	10.9	6,013	6,064	187.91	191.08	0.14
S36	18804	382,663	329,486	3,516,385	16.53	14.29	13.55	7.4	7.8	11,367	11,418	355.22	358.39	0.26
S36	18805	382,663	329,486	3,516,385	20.00	15.72	21.42	8.1	8.8	6,000	6,051	187.50	190.67	0.14
S36	18806	382,663	329,486	3,516,385	20.00	15.97	20.13	7.7	8.4	6,820	6,871	213.13	216.30	0.15
S8	325603	794,298	435,458	4,149,703	15.04	11.95	20.57	4.0	4.4	26,067	26,172	271.53	273.73	0.20
S8	325604	794,298	435,458	4,149,703	15.68	12.35	21.26	4.0	4.4	25,000	25,105	260.42	262.61	0.19
S87	37606	453,250	271,915	6,504,983	20.00	14.98	25.09	9.2	10.3	5,000	5,060	156.25	160.01	0.11
US59	17707	3,228,671	1,589,427	4,149,703	2.37	2.04	14.25	6.2	6.6	106,000	106,428	1656.3	1669.6	0.76
US75	5104	453,250	271,915	6,011,120	10.14	9.48	6.43	6.2	6.4	36,000	36,060	562.50	564.38	0.26
US90	2801	99,447	87,854	3,715,330	12.14	11.79	2.84	7.1	7.1	16,375	16,388	255.86	256.27	0.12
US90	2802	99,447	87,854	3,715,330	20.00	19.01	4.95	7.3	7.4	8,900	8,913	139.06	139.47	0.06
US90A	2710	21,115	12,668	3,715,330	13.96	13.86	0.71	3.8	3.8	26,480	26,483	413.75	413.84	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	230,956	172,371	1,252,801	20.00	7.90	60.48	7.9	12.0	660	691	20.63	22.54	0.02
FM2717	271401	116,847	91,867	2,094,784	20.00	6.38	68.10	7.9	13.5	240	255	7.50	8.47	0.01
FM2760	271403	140,869	110,753	2,568,860	20.00	11.26	43.70	9.5	12.0	660	679	20.63	21.79	0.02
S316	58001	257,717	202,620	1,642,425	20.00	5.77	71.16	4.8	9.0	740	774	23.13	25.26	0.02
S35	17904	1,195,929	707,247	2,276,676	7.94	5.78	27.29	10.5	11.9	10,317	10,476	161.20	166.16	0.12
S35	17906	965,956	534,877	2,276,676	11.85	8.16	31.13	11.8	13.6	6,150	6,278	96.09	100.10	0.07
S35	17907	965,956	534,877	2,276,676	15.25	9.64	36.79	16.4	19.5	3,430	3,558	107.19	115.19	0.08
S35	17908	965,956	534,877	2,276,676	20.00	6.78	66.09	6.4	10.7	2,638	2,766	82.44	90.44	0.06
S35	17909	919,131	534,877	2,276,676	18.12	10.93	39.69	15.3	18.5	3,100	3,222	96.88	104.49	0.07
S35	17910	919,131	534,877	1,795,577	8.02	5.86	26.97	10.0	11.2	8,500	8,622	132.81	136.62	0.10
S35	18001	836,415	470,290	1,795,577	6.49	5.11	21.39	13.1	14.3	7,964	8,075	248.88	255.81	0.18
S60	24101	230,956	172,371	1,952,424	16.05	13.71	14.59	10.8	11.4	4,260	4,291	133.13	135.04	0.10
S60	24102	230,956	172,371	2,276,676	15.73	13.75	12.55	8.7	9.1	6,325	6,356	98.83	99.79	0.07
S60	24103	230,956	172,371	2,276,676	20.00	14.53	27.33	3.6	4.1	5,800	5,831	90.63	91.58	0.07
S60	24104	230,956	172,371	2,276,676	20.00	13.56	32.22	6.9	8.1	2,400	2,431	75.00	76.91	0.05
US59	8905	3,490,637	1,822,554	2,112,832	2.78	1.97	29.22	21.1	23.7	13,600	14,063	212.50	226.97	0.10
US59	8904	3,490,637	1,822,554	2,112,832	2.78	1.97	29.25	21.4	24.0	13,400	13,863	209.38	223.84	0.10
US59	8903	3,490,637	1,822,554	2,112,832	2.39	1.76	26.18	21.8	24.1	15,350	15,813	239.84	254.31	0.12
US59	8901	3,490,637	1,822,554	5,841,189	11.03	6.93	37.23	13.6	16.2	14,767	15,230	230.73	245.20	0.11
US59	8804	3,092,333	1,526,344	5,841,189	11.42	7.40	35.23	15.0	17.6	12,867	13,277	201.05	213.86	0.10
US87	14306	141,521	104,557	5,841,189	20.00	16.90	15.51	9.2	9.8	2,850	2,869	89.06	90.24	0.04
US87	14307	141,521	104,557	5,841,189	20.00	15.29	23.53	9.2	10.2	1,700	1,719	53.13	54.30	0.02
US87	14308	141,521	104,557	8,872,292	20.00	18.40	7.99	9.2	9.5	6,020	6,039	188.13	189.30	0.09
US87	14309	141,521	104,557	8,872,292	20.00	18.46	7.72	10.1	10.4	5,667	5,686	177.09	178.27	0.08
US87	14310	141,521	104,557	5,009,267	19.39	18.48	4.70	11.8	12.0	8,280	8,299	258.75	259.92	0.12
US87	14401	141,521	104,557	5,009,267	20.00	17.98	10.08	6.7	7.0	6,363	6,382	198.84	200.02	0.09
US87	14403	141,521	104,557	2,276,676	20.00	17.64	11.79	7.5	7.9	4,800	4,819	150.00	151.17	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	15,606	8,879	3,436,383	20.00	19.64	1.78	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	18,028	10,257	3,074,361	20.00	19.11	4.44	6.7	6.8	2,000	2,002	62.50	62.65	0.04
S35	18003	47,179	15,963	1,791,737	15.08	14.56	3.45	14.0	14.2	3,200	3,206	100.00	100.39	0.07
S35	18004	47,179	15,963	1,791,737	6.71	6.61	1.56	9.5	9.6	10,592	10,598	331.00	331.39	0.24
S35	18005	47,179	15,963	1,791,737	7.71	7.57	1.79	9.9	10.0	8,867	8,873	277.09	277.48	0.20
S358	61701	2,996,696	1,506,940	2,810,157	5.12	3.44	32.72	4.3	5.1	48,638	49,035	506.65	514.93	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S361	18010	33,634	19,137	1,470,362	9.81	9.62	1.98	10.3	10.4	5,500	5,504	171.88	172.15	0.12
S44	10201	2,996,696	1,506,940	1,316,451	8.73	3.13	64.13	7.4	11.9	7,700	8,097	120.31	132.73	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,487,762	808,648	2,129,917	4.02	3.21	20.16	19.9	21.5	10,043	10,240	156.92	163.09	0.07
US77	37103	1,487,762	808,648	2,129,917	20.00	5.02	74.89	18.8	33.4	900	1,097	14.06	20.23	0.01
US77	37104	3,092,152	1,526,163	2,483,647	6.83	3.87	43.32	18.8	23.2	7,300	7,710	114.06	126.88	0.06
US77	37203	3,085,990	1,522,989	2,483,647	15.17	5.63	62.90	7.8	12.3	7,933	8,342	123.95	136.74	0.06
US77	37201	3,085,990	1,522,989	2,483,647	4.38	2.94	32.87	16.2	18.8	13,200	13,609	206.25	219.04	0.10
US77	37301	3,085,990	1,522,989	1,167,359	1.42	1.06	25.20	16.0	17.7	19,475	19,884	304.30	317.09	0.14
US77	10202	89,293	16,049	1,167,359	1.52	1.51	1.04	20.7	20.8	13,975	13,987	218.36	218.73	0.10
US77	10203	89,293	16,049	1,167,359	1.33	1.32	0.91	20.4	20.4	16,300	16,312	254.69	255.06	0.12
US77	10204	89,293	16,049	2,483,647	3.34	3.30	1.07	22.7	22.8	12,386	12,398	193.53	193.90	0.09
US77	32701	89,293	16,049	2,483,647	4.78	4.70	1.52	28.9	29.0	6,800	6,812	106.25	106.62	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	1,353,501	687,575	4,790,983	2.67	2.50	6.30	26.5	27.0	26,000	26,180	406.25	411.86	0.19
I10	73901	1,353,501	687,575	4,790,983	2.55	2.40	6.04	28.9	29.4	25,000	25,180	390.63	396.23	0.18
I10	50803	1,353,501	687,575	4,790,983	2.56	2.41	6.06	26.2	26.6	27,500	27,680	429.69	435.30	0.20
I10	50802	1,353,501	687,575	4,790,983	2.56	2.40	6.05	23.8	24.2	30,333	30,513	473.95	479.56	0.22
US90	2807	99,447	87,854	1,436,461	2.65	2.60	1.62	8.1	8.1	25,333	25,346	395.83	396.24	0.18
US90	2806	99,447	87,854	1,436,461	6.02	5.80	3.61	12.7	12.8	7,122	7,135	111.28	111.69	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	46,827	16,049	1,673,506	20.00	19.04	4.80	10.9	11.1	2,900	2,906	90.63	91.01	0.07
FM2925	63003	46,827	16,049	1,673,506	20.00	14.79	26.05	7.7	8.7	587	593	18.34	18.73	0.01

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 418 / Sargent Beach
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

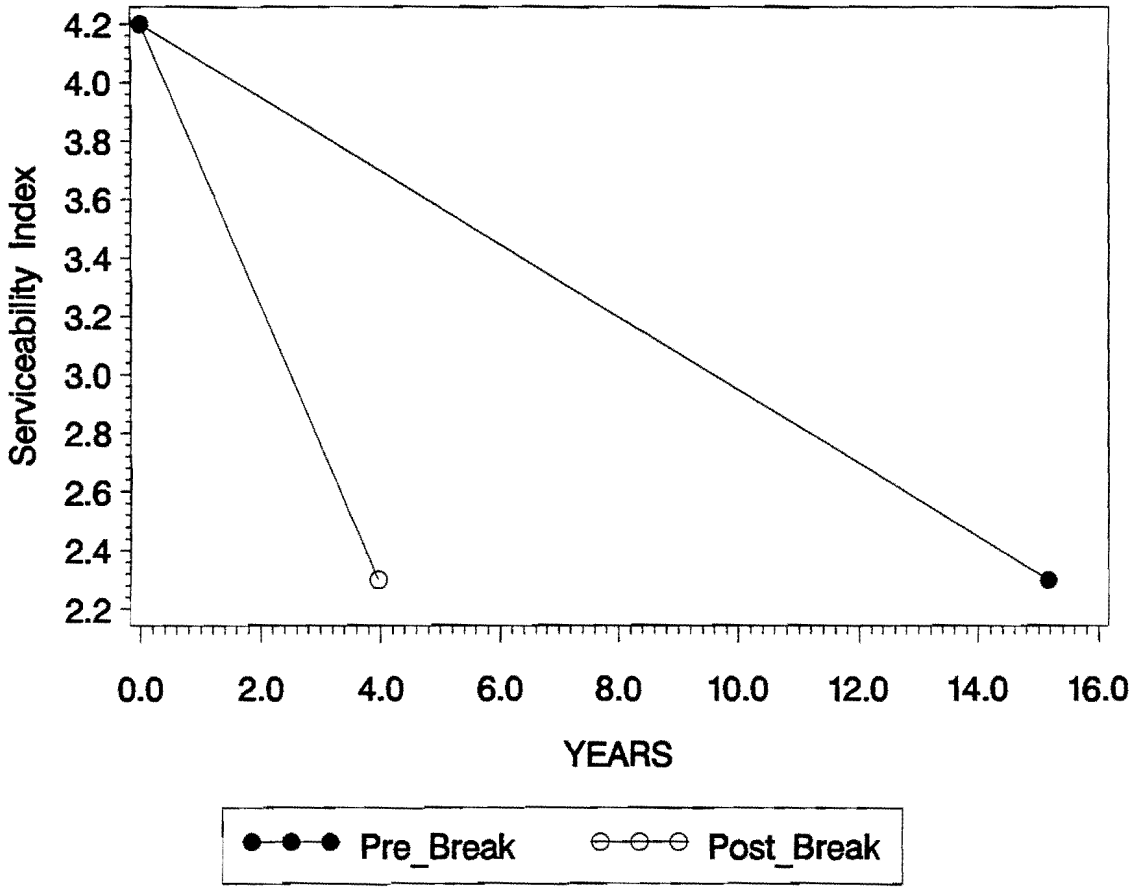
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM508	34204	46,827	16,049	1,673,506	20.00	17.99	10.05	6.6	6.9	2,160	2,166	67.50	67.89	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	89,293	16,049	5,006,733	9.84	9.69	1.55	29.6	29.7	6,500	6,512	101.56	101.93	0.05
US77	32703	89,293	16,049	5,006,733	10.24	10.07	1.62	30.3	30.4	6,100	6,112	95.31	95.68	0.04
US77	32704	89,293	16,049	5,006,733	10.38	10.21	1.64	30.4	30.5	6,000	6,012	93.75	94.12	0.04
US77	32705	89,293	16,049	5,006,733	9.39	9.25	1.48	30.1	30.2	6,700	6,712	104.69	105.06	0.05
US77	32710	89,293	16,049	1,951,437	3.48	3.43	1.41	25.6	25.7	8,287	8,299	129.48	129.85	0.06
US77	32708	89,293	16,049	1,951,437	13.66	12.93	5.32	5.4	5.5	10,000	10,012	104.17	104.41	0.05
US77	3907	89,293	16,049	1,951,437	1.14	1.13	0.47	23.2	23.2	27,920	27,932	436.25	436.62	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX H

Colorado River Break Point (442)

PAVEMENT LIFETIME

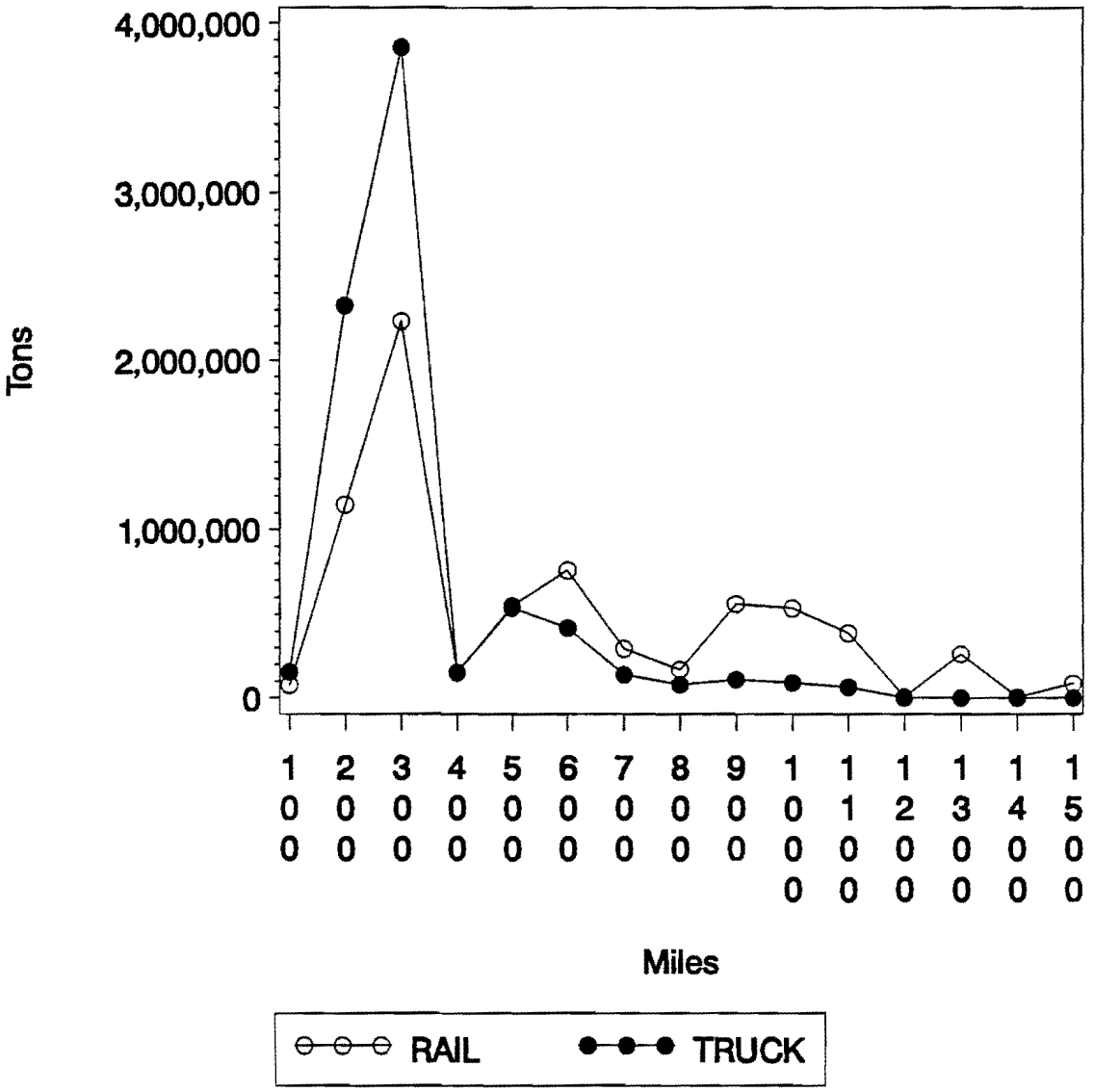
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 442 / Colorado River
HIGHWAY=US77 CONTROL/SECTION=37203



TONS TRANSPORTED

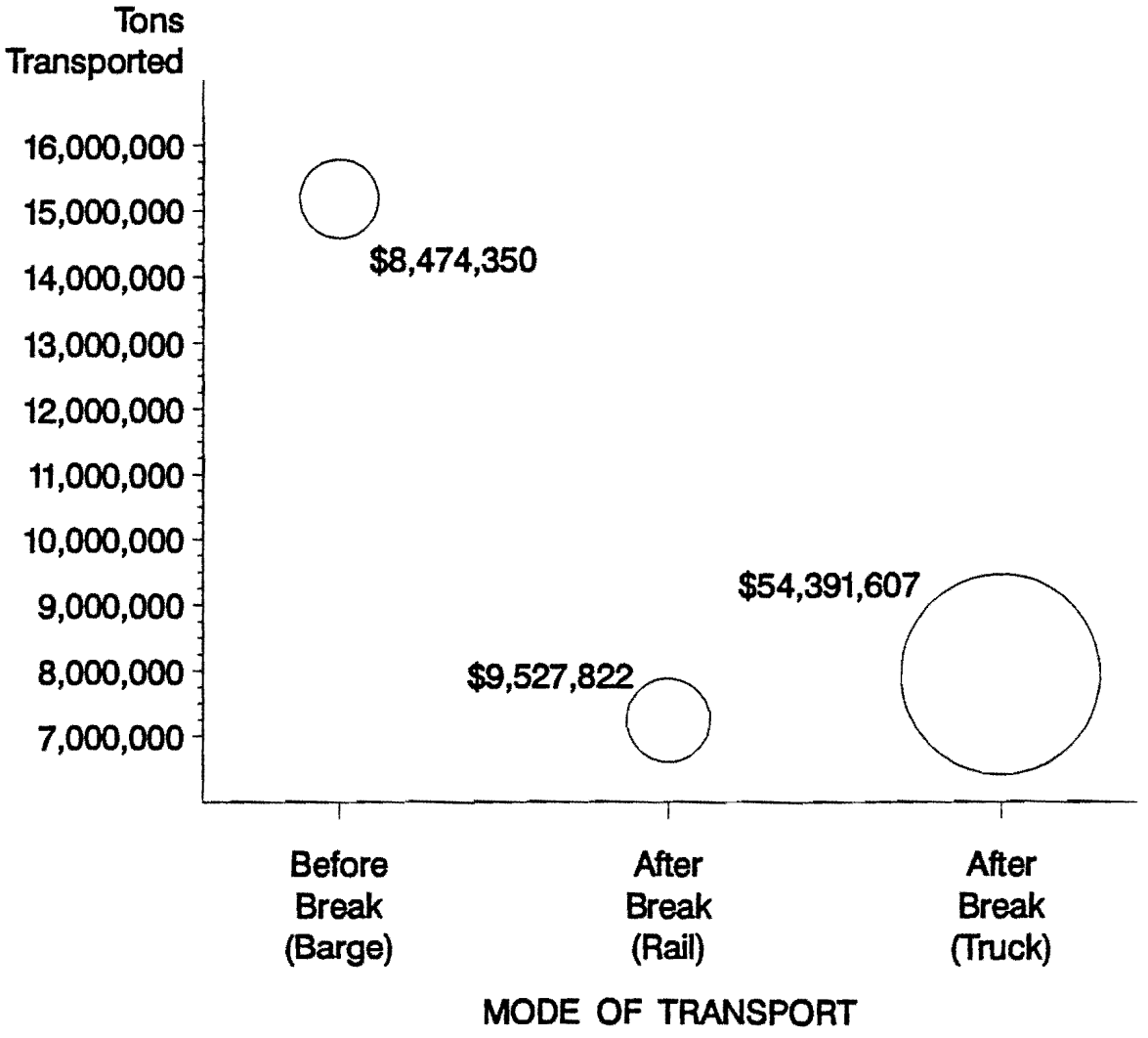
AS A FUNCTION OF DISTANCE

BREAK POINT 442 / Colorado River



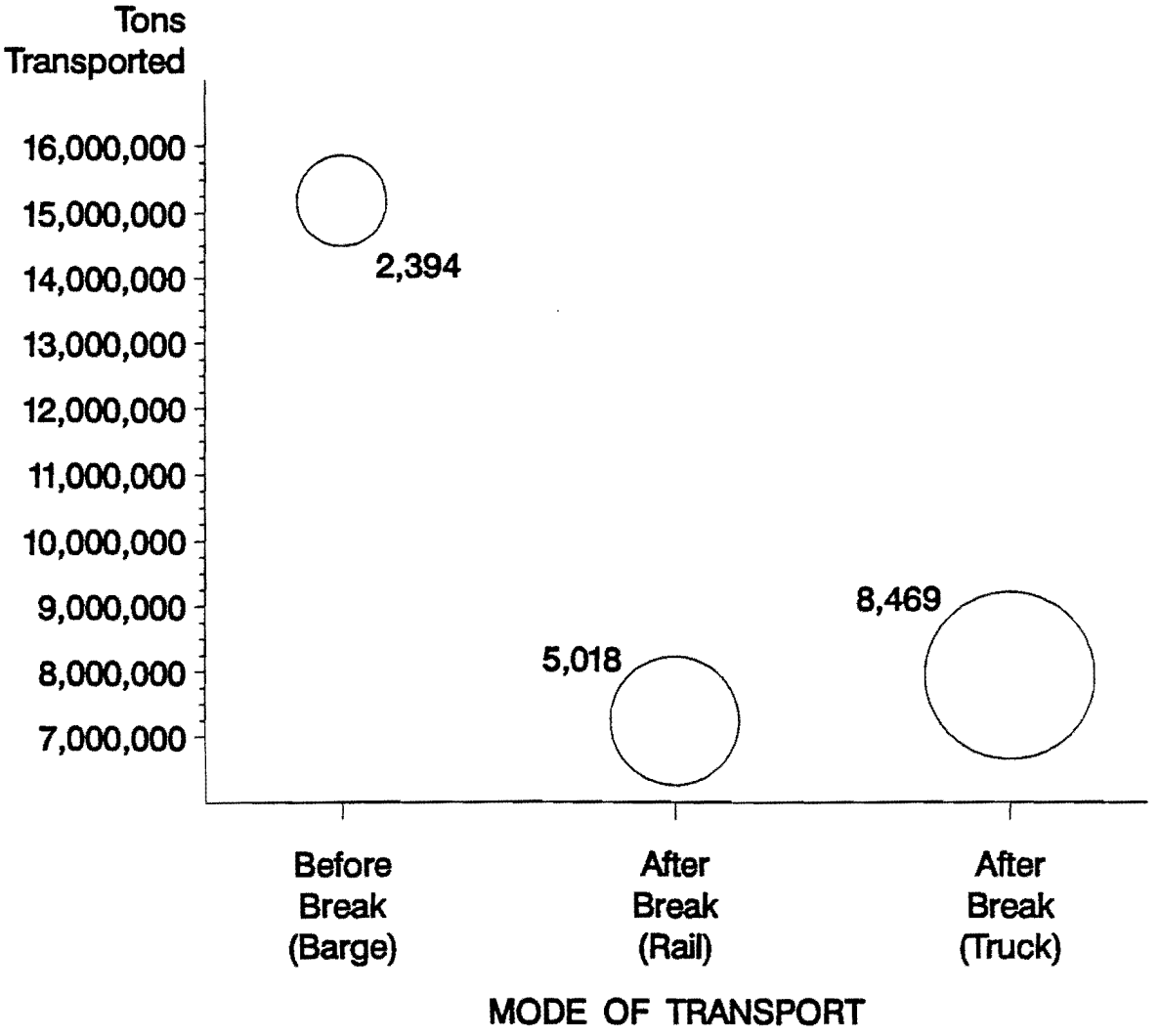
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 442 / Colorado River



EMISSIONS (Tons)

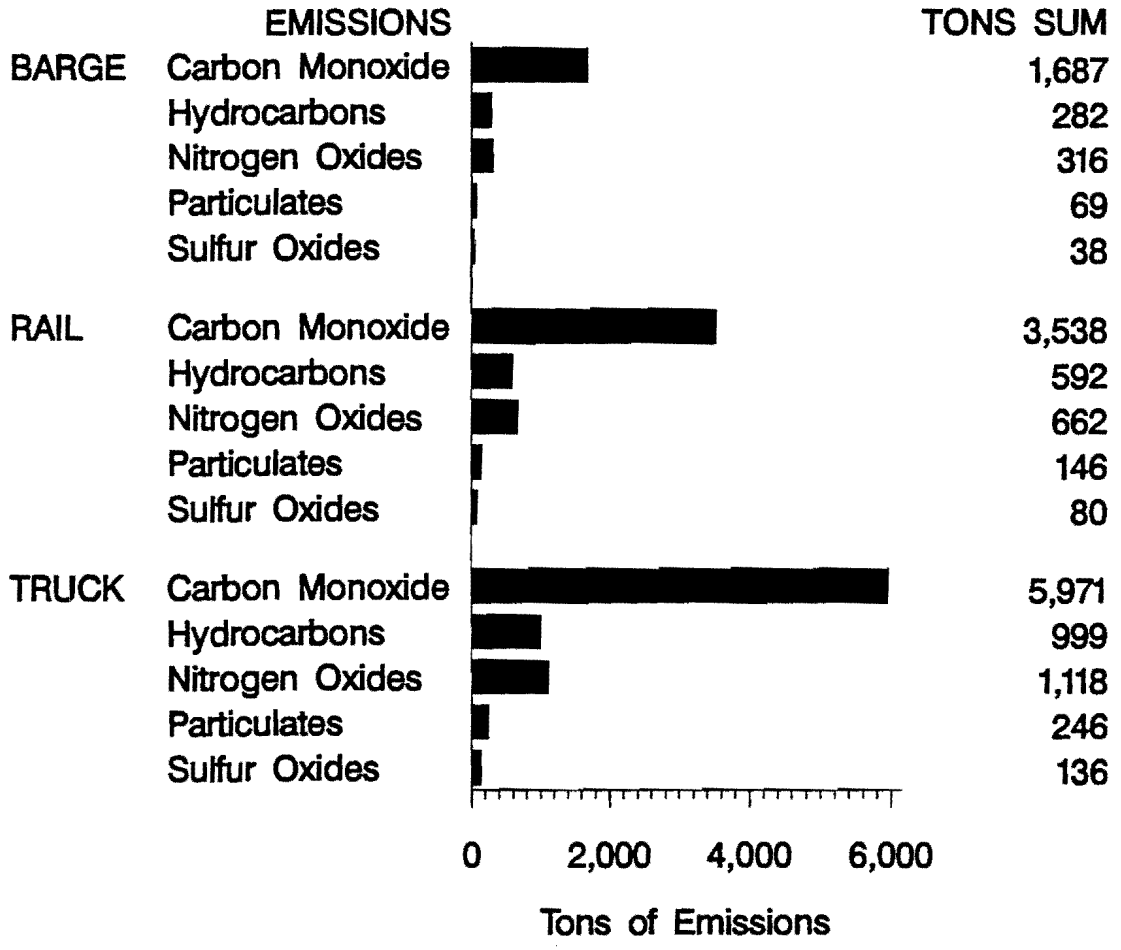
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON – MILES EFFICIENCY
BREAK POINT 442 / Colorado River



EMISSIONS (Tons)

LOW END OF TON – MILE EFFICIENCY

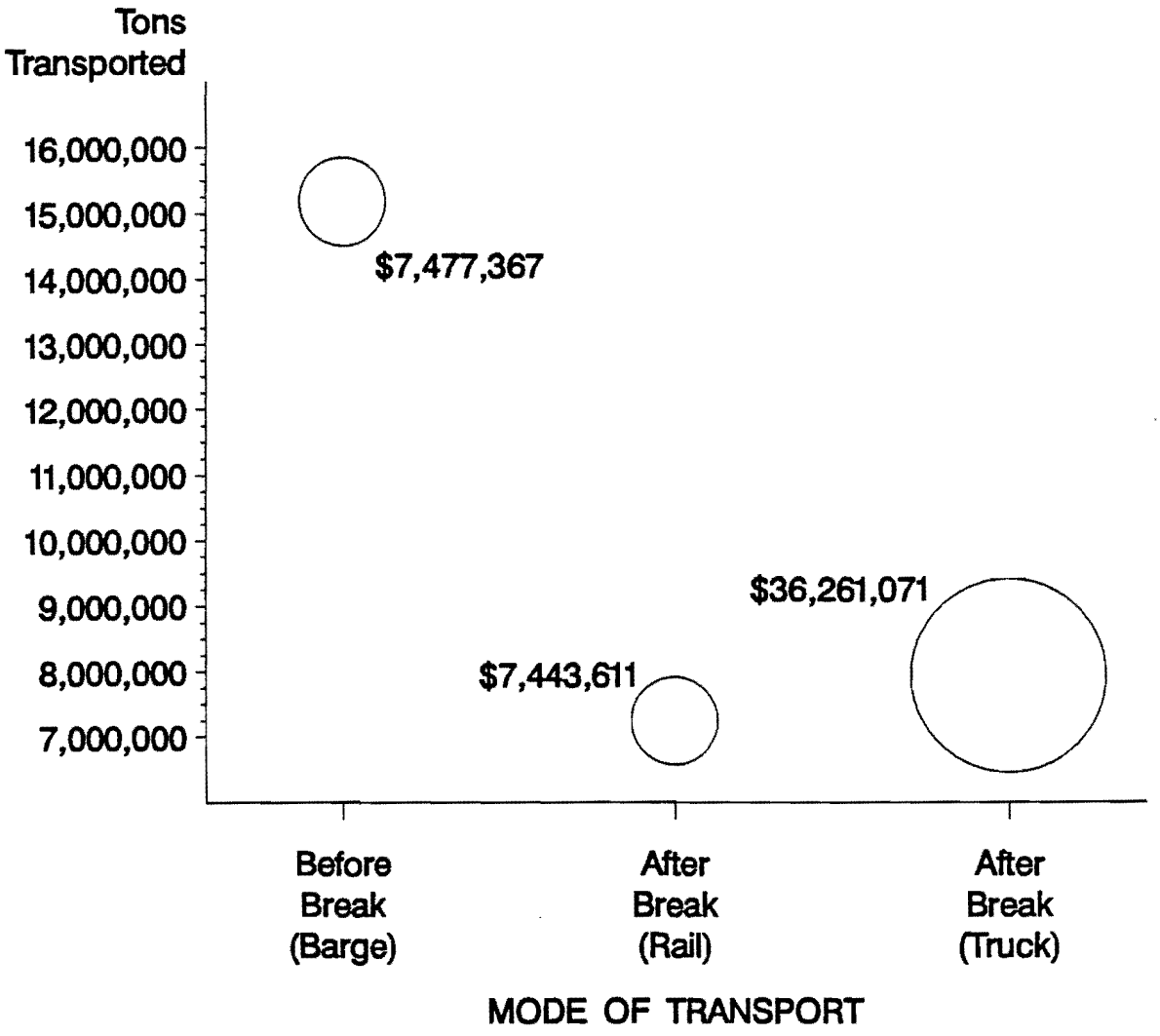
BREAK POINT 442 / Colorado River



Note: Barge emissions are pre – break
Rail & Truck emissions are post – break

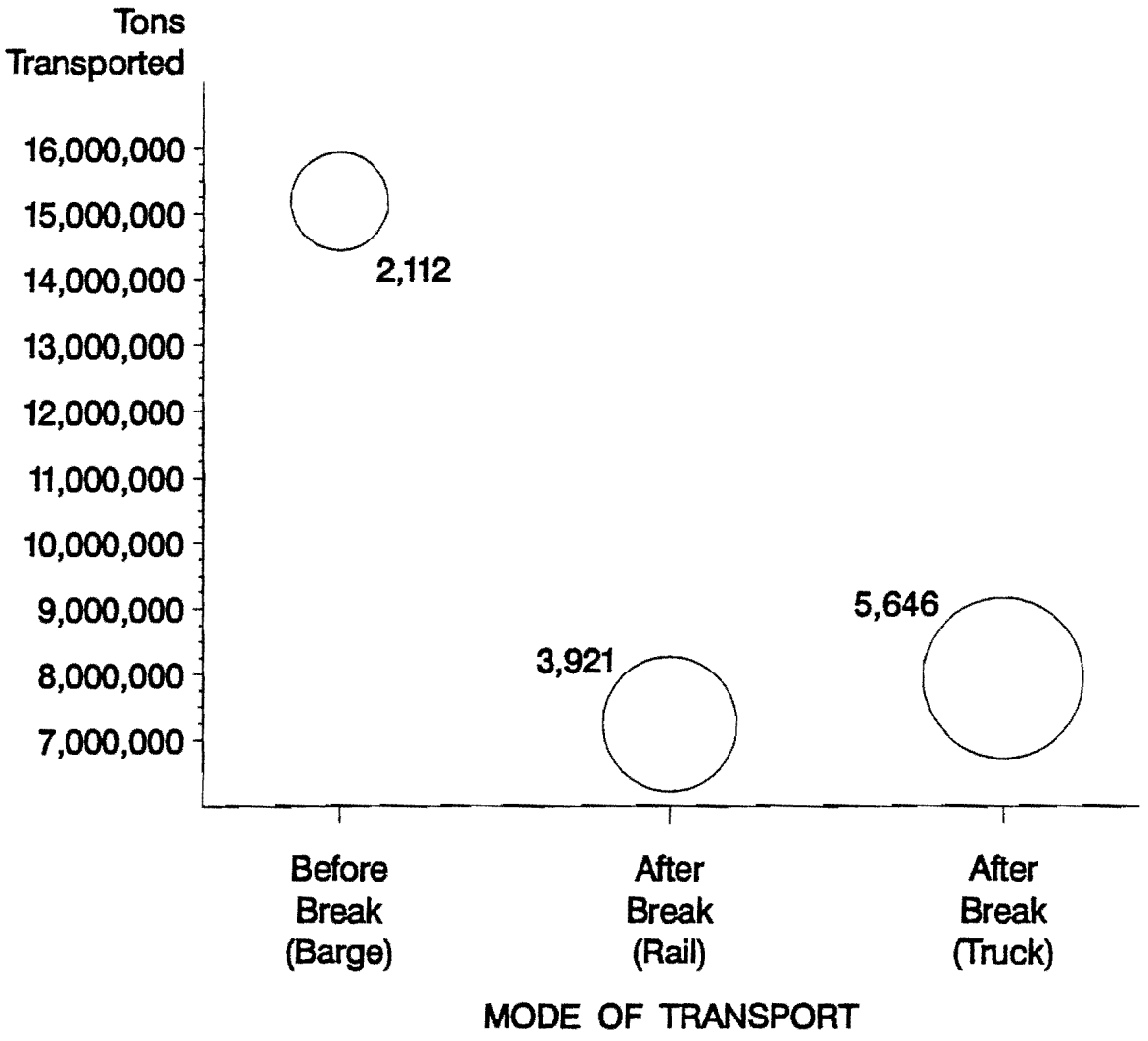
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON – MILES EFFICIENCY
BREAK POINT 442 / Colorado River



EMISSIONS (Tons)

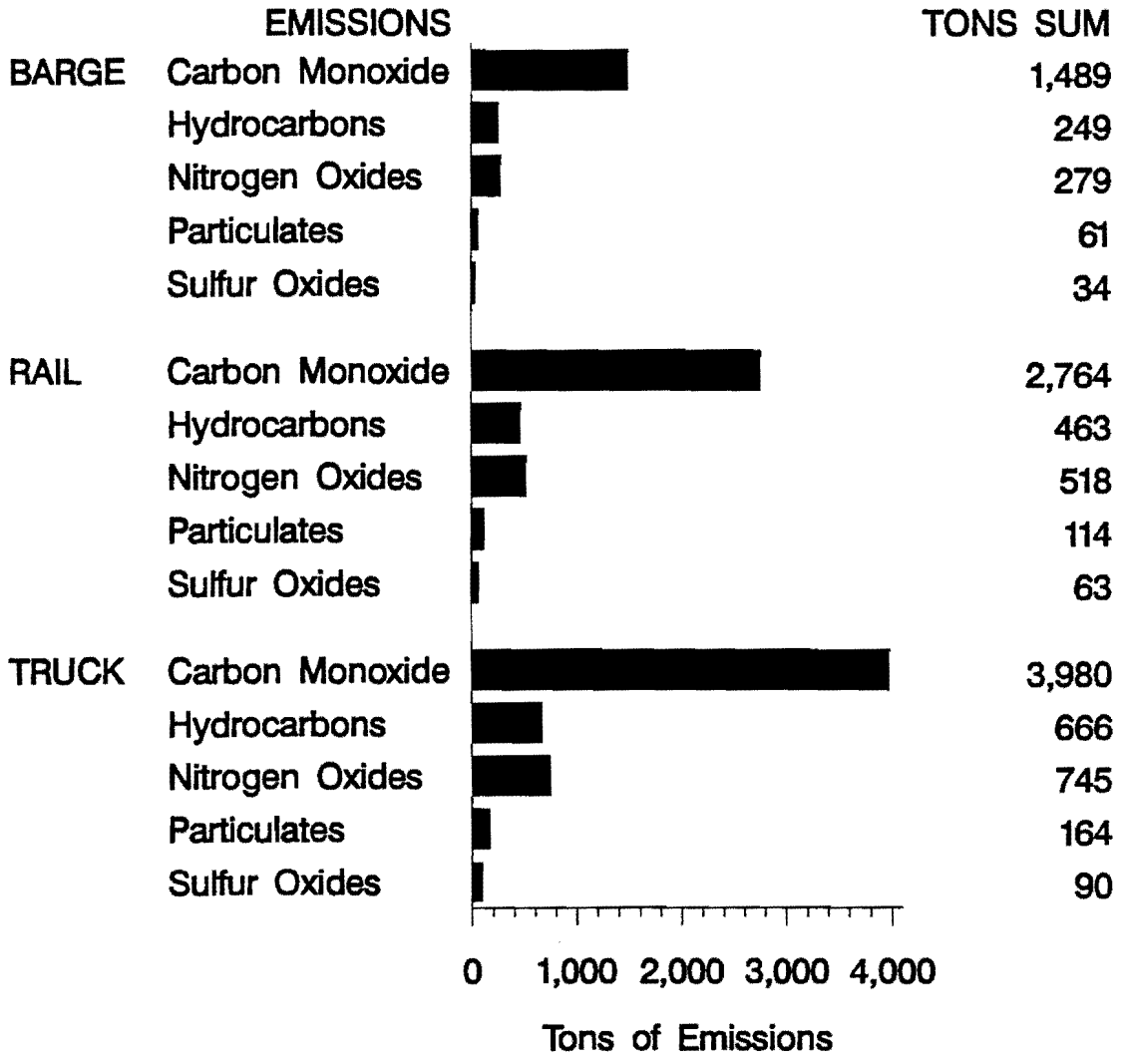
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 442 / Colorado River



EMISSIONS (Tons)

HIGH END OF TON–MILE EFFICIENCY

BREAK POINT 442 / Colorado River



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 442 / Colorado River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	7,694	1,485	1,275	7,904	1.20	0.78	0.36	1.62	0.01
1	470	116,950	58,298	121,717	238,667	1,231,165	135,568	147,321	1,219,412	191.69	71.41	41.61	221.49	1.31
1	480	302	302	308	610	3,418	368	404	3,382	0.53	0.19	0.11	0.61	0.00
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	470	1,791	.	884	2,675	8,921	464	780	8,606	1.39	0.24	0.22	1.41	0.01
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	450	152,560	117,520	75,362	227,922	396,768	20,633	34,668	382,734	61.78	10.87	9.79	62.85	0.42
350	470	100,509	98,951	49,650	150,159	330,187	17,171	28,851	318,507	51.41	9.04	8.15	52.31	0.35
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	450	59,430	48,174	29,357	88,787	146,426	7,615	12,794	141,247	22.80	4.01	3.61	23.20	0.16
360	460	4,114	.	2,032	6,146	10,924	568	955	10,538	1.70	0.30	0.27	1.73	0.01
360	470	2,107	2,107	1,041	3,148	6,634	345	580	6,399	1.03	0.18	0.16	1.05	0.01
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	470	55,793	55,793	27,561	83,354	106,918	5,560	9,342	103,136	16.65	2.93	2.64	16.94	0.11
400	500	99,562	99,562	49,182	148,744	258,935	13,466	22,625	249,776	40.32	7.09	6.39	41.02	0.27
400	540	5,244	5,244	2,590	7,834	19,092	993	1,668	18,417	2.97	0.52	0.47	3.02	0.02
400	550	277,797	241,162	137,228	415,025	1,142,330	59,406	99,813	1,101,923	177.86	31.29	28.19	180.96	1.21
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
410	550	6,637	5,089	3,278	9,915	26,344	1,370	2,302	25,413	4.10	0.72	0.65	4.17	0.03
450	1	676	.	692	1,368	6,352	684	751	6,284	0.99	0.36	0.21	1.14	0.01
450	350	170,372	120,664	84,161	254,533	443,093	23,043	38,716	427,420	68.99	12.14	10.94	70.19	0.47
450	360	926	926	458	1,384	2,282	119	199	2,202	0.36	0.06	0.06	0.36	0.00
460	360	35,005	.	17,292	52,297	92,956	4,834	8,122	89,668	14.47	2.55	2.29	14.73	0.10
460	400	38,924	.	19,228	58,152	55,411	2,882	4,842	53,451	8.63	1.52	1.37	8.78	0.06
470	1	118,616	115,662	553,954	672,570	2,506,983	1,350,869	897,105	2,960,747	390.34	711.53	253.38	848.48	2.66
470	290	25,226	.	12,462	37,688	124,309	6,465	10,862	119,912	19.36	3.40	3.07	19.69	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 442 / Colorado River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	21,637	1,125	1,891	20,872	3.37	0.59	0.53	3.43	0.02
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
480	400	8	.	4	12	18	1	2	17	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
550	400	143,205	138,085	70,742	213,947	588,064	30,582	51,383	567,263	91.56	16.11	14.51	93.16	0.62
550	410	4,208	4,208	2,079	6,287	16,705	869	1,460	16,114	2.60	0.46	0.41	2.65	0.02
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	54,391,607	9,527,822	8,474,350	55,445,079	8,468.81	5,018.47	2,393.52	11,093.76	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 442 / Colorado River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 442 / Colorado River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	36,261,071	7,443,611	7,477,367	36,227,315	5,645.87	3,920.68	2,111.93	7,454.62	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	588,004	539,846	2,342,909	20.00	7.59	62.03	3.4	5.4	3,600	3,678	112.50	117.37	0.08
FM1764	160701	112,889	67,725	4,149,703	14.52	14.02	3.43	4.5	4.6	24,000	24,015	375.00	375.47	0.27
FM1764	160702	75,259	45,150	4,149,703	20.00	19.31	3.43	3.0	3.0	24,000	24,010	750.00	750.62	0.54
FM2918	293901	10,845	9,297	4,334,935	20.00	18.07	9.67	7.0	7.3	500	501	15.63	15.71	0.01
FM360	52706	438,249	388,544	5,014,448	20.00	9.54	52.32	9.2	12.6	1,500	1,558	46.88	50.51	0.04
FM523	100301	62,224	53,580	1,867,826	20.00	18.15	9.23	3.2	3.3	6,625	6,633	207.03	207.55	0.15
I45	11004	105,444	63,258	12,973,790	6.95	6.91	0.51	11.4	11.4	62,000	62,014	968.75	969.19	0.44
I45	11005	92,825	55,688	5,528,218	2.18	2.17	0.33	10.0	10.0	95,667	95,679	1494.8	1495.2	0.68
I45	67508	160,890	96,522	15,422,523	12.91	12.75	1.20	17.4	17.4	26,000	26,021	406.25	406.92	0.18
S134	37602	658,647	319,112	7,009,427	20.00	16.44	17.81	6.5	7.0	15,900	15,987	496.88	502.33	0.36
S146	38905	625,039	302,788	2,496,949	9.75	7.99	18.00	6.2	6.7	15,700	15,783	245.31	247.90	0.18
S146	38906	761,818	369,223	2,496,949	10.65	8.24	22.61	7.5	8.3	11,786	11,887	184.16	187.31	0.13
S146	38912	486,814	235,652	2,496,949	9.98	8.49	14.90	4.8	5.1	19,700	19,765	307.81	309.83	0.22
S197	38911	135,781	81,458	3,294,557	20.00	17.45	12.76	5.4	5.7	5,833	5,851	182.28	183.41	0.13
S288	59804	237,879	204,830	2,655,275	6.85	6.50	5.08	12.2	12.4	12,600	12,632	196.88	197.86	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	158,211	136,233	2,057,202	11.46	10.65	7.14	8.1	8.3	8,767	8,788	273.97	275.28	0.20
S341	62801	150,519	90,300	4,149,703	20.00	17.13	14.33	6.0	6.4	5,100	5,120	79.69	80.31	0.06
S348	68601	280,969	168,560	7,909,001	19.32	18.23	5.64	11.2	11.4	14,500	14,537	453.13	455.45	0.33
S35	17801	1,793,692	1,018,147	1,764,574	5.81	3.80	34.71	5.3	6.4	21,500	21,738	335.94	343.37	0.25
S35	17802	1,793,692	1,018,147	2,342,909	10.26	6.01	41.40	6.3	7.9	13,773	14,011	215.20	222.64	0.16
S35	17803	1,793,692	1,018,147	2,342,909	13.82	7.08	48.76	7.2	9.6	8,900	9,138	139.06	146.50	0.10
S35	17901	1,793,692	1,018,147	2,342,909	10.29	6.02	41.46	10.4	12.9	8,300	8,538	129.69	137.12	0.10
S35	17902	1,993,215	1,178,745	2,342,909	10.46	5.81	44.45	10.3	13.1	8,222	8,486	256.94	273.46	0.20
S35	17903	1,993,215	1,178,745	2,342,909	13.90	6.74	51.55	10.5	14.2	6,067	6,331	189.59	206.12	0.15
S36	18705	637,771	549,143	2,535,398	13.80	10.51	23.79	15.1	16.6	4,600	4,685	143.75	149.04	0.11
S36	18801	637,771	549,143	2,535,398	11.10	8.87	20.07	8.7	9.5	9,900	9,985	309.38	314.66	0.22
S36	18802	637,771	549,143	2,535,398	19.72	13.64	30.85	10.2	11.8	4,750	4,835	148.44	153.72	0.11
S36	18803	637,771	549,143	3,516,385	20.00	14.70	26.50	10.2	11.4	6,013	6,098	187.91	193.19	0.14
S36	18804	637,771	549,143	3,516,385	16.53	13.10	20.72	7.4	8.1	11,367	11,452	355.22	360.51	0.26
S36	18805	637,771	549,143	3,516,385	20.00	13.75	31.24	8.1	9.4	6,000	6,085	187.50	192.79	0.14
S36	18806	637,771	549,143	3,516,385	20.00	14.08	29.58	7.7	8.8	6,820	6,905	213.13	218.41	0.16
S8	325603	1,323,830	725,763	4,149,703	15.04	10.51	30.15	4.0	4.6	26,067	26,243	271.53	275.19	0.20
S8	325604	1,323,830	725,763	4,149,703	15.68	10.82	31.04	4.0	4.7	25,000	25,176	260.42	264.07	0.19
S87	37606	755,417	453,192	6,504,983	20.00	12.83	35.83	9.2	11.0	5,000	5,100	156.25	162.51	0.12
US59	17707	5,381,119	2,649,046	4,149,703	2.37	1.86	21.69	6.2	6.9	106,000	106,714	1656.3	1678.6	0.76
US75	5104	755,417	453,192	6,011,120	10.14	9.09	10.28	6.2	6.5	36,000	36,100	562.50	565.63	0.26
US90	2801	165,744	146,423	3,715,330	12.14	11.57	4.64	7.1	7.2	16,375	16,397	255.86	256.55	0.12
US90	2802	165,744	146,423	3,715,330	20.00	18.40	7.98	7.3	7.5	8,900	8,922	139.06	139.75	0.06
US90A	2710	35,192	21,113	3,715,330	13.96	13.79	1.18	3.8	3.8	26,480	26,485	413.75	413.90	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	384,927	287,284	1,252,801	20.00	5.63	71.84	7.9	14.5	660	711	20.63	23.82	0.02
FM2717	271401	194,746	153,111	2,094,784	20.00	4.39	78.06	7.9	16.8	240	266	7.50	9.11	0.01
FM2760	271403	234,782	184,588	2,568,860	20.00	8.72	56.40	9.5	13.6	660	691	20.63	22.57	0.02
S316	58001	429,528	337,699	1,642,425	20.00	3.91	80.44	4.8	11.6	740	797	23.13	26.69	0.02
S35	17904	1,993,215	1,178,745	2,276,676	7.94	4.89	38.48	10.5	12.7	10,317	10,581	161.20	169.46	0.12
S35	17906	1,609,927	891,461	2,276,676	11.85	6.76	42.97	11.8	14.8	6,150	6,364	96.09	102.77	0.07
S35	17907	1,609,927	891,461	2,276,676	15.25	7.74	49.24	16.4	21.3	3,430	3,644	107.19	120.53	0.09
S35	17908	1,609,927	891,461	2,276,676	20.00	4.71	76.46	6.4	13.4	2,638	2,852	82.44	95.78	0.07
S35	17909	1,531,884	891,461	2,276,676	18.12	8.64	52.31	15.3	20.5	3,100	3,303	96.88	109.57	0.08
S35	17910	1,531,884	891,461	1,795,577	8.02	4.96	38.09	10.0	12.1	8,500	8,703	132.81	139.16	0.10
S35	18001	1,394,026	783,816	1,795,577	6.49	4.47	31.20	13.1	15.1	7,964	8,149	248.88	260.43	0.19
S60	24101	384,927	287,284	1,952,424	16.05	12.50	22.16	10.8	11.8	4,260	4,311	133.13	136.32	0.10
S60	24102	384,927	287,284	2,276,676	15.73	12.69	19.30	8.7	9.4	6,325	6,376	98.83	100.42	0.07
S60	24103	384,927	287,284	2,276,676	20.00	12.29	38.53	3.6	4.4	5,800	5,851	90.63	92.22	0.07
S60	24104	384,927	287,284	2,276,676	20.00	11.16	44.21	6.9	8.8	2,400	2,451	75.00	78.19	0.06
US59	8905	5,817,728	3,037,590	2,112,832	2.78	1.65	40.76	21.1	25.4	13,600	14,372	212.50	236.61	0.11
US59	8904	5,817,728	3,037,590	2,112,832	2.78	1.65	40.80	21.4	25.7	13,400	14,172	209.38	233.49	0.11
US59	8903	5,817,728	3,037,590	2,112,832	2.39	1.50	37.15	21.8	25.5	15,350	16,122	239.84	263.96	0.12
US59	8901	5,817,728	3,037,590	5,841,189	11.03	5.55	49.71	13.6	17.8	14,767	15,539	230.73	254.85	0.12
US59	8804	5,153,889	2,543,906	5,841,189	11.42	5.99	47.54	15.0	19.3	12,867	13,551	201.05	222.41	0.10
US87	14306	235,868	174,261	5,841,189	20.00	15.32	23.42	9.2	10.2	2,850	2,881	89.06	91.02	0.04
US87	14307	235,868	174,261	5,841,189	20.00	13.22	33.90	9.2	10.8	1,700	1,731	53.13	55.08	0.03
US87	14308	235,868	174,261	8,872,292	20.00	17.47	12.65	9.2	9.7	6,020	6,051	188.13	190.08	0.09
US87	14309	235,868	174,261	8,872,292	20.00	17.55	12.24	10.1	10.6	5,667	5,698	177.09	179.05	0.08
US87	14310	235,868	174,261	5,009,267	19.39	17.92	7.59	11.8	12.1	8,280	8,311	258.75	260.71	0.12
US87	14401	235,868	174,261	5,009,267	20.00	16.85	15.74	6.7	7.2	6,363	6,394	198.84	200.80	0.09
US87	14403	235,868	174,261	2,276,676	20.00	16.36	18.22	7.5	8.1	4,800	4,831	150.00	151.96	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	26,010	14,799	3,436,383	20.00	19.41	2.93	5.8	5.9	5,100	5,103	79.69	79.80	0.06
FM2725	275601	30,046	17,095	3,074,361	20.00	18.56	7.19	6.7	6.9	2,000	2,004	62.50	62.75	0.04
S35	18003	78,632	26,605	1,791,737	15.08	14.23	5.62	14.0	14.3	3,200	3,210	100.00	100.65	0.07
S35	18004	78,632	26,605	1,791,737	6.71	6.54	2.58	9.5	9.6	10,592	10,602	331.00	331.65	0.24
S35	18005	78,632	26,605	1,791,737	7.71	7.48	2.95	9.9	10.0	8,867	8,877	277.09	277.75	0.20
S358	61701	4,994,494	2,511,566	2,810,157	5.12	2.83	44.77	4.3	5.6	48,638	49,300	506.65	520.45	0.37
S361	18010	56,056	31,894	1,470,362	9.81	9.49	3.25	10.3	10.4	5,500	5,507	171.88	172.34	0.12

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S44	10201	4,994,494	2,511,566	1,316,451	8.73	2.19	74.88	7.4	14.7	7,700	8,362	120.31	141.01	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,479,603	1,347,747	2,129,917	4.02	2.83	29.62	19.9	22.5	10,043	10,372	156.92	167.20	0.08
US77	37103	2,479,603	1,347,747	2,129,917	20.00	3.35	83.25	18.8	40.6	900	1,229	14.06	24.34	0.01
US77	37104	5,153,587	2,543,604	2,483,647	6.83	3.00	56.02	18.8	25.8	7,300	7,983	114.06	135.42	0.06
US77	37203	5,143,316	2,538,315	2,483,647	15.17	3.97	73.86	7.8	15.1	7,933	8,615	123.95	145.27	0.07
US77	37201	5,143,316	2,538,315	2,483,647	4.38	2.41	44.93	16.2	20.4	13,200	13,882	206.25	227.57	0.10
US77	37301	5,143,316	2,538,315	1,167,359	1.42	0.91	35.96	16.0	18.8	19,475	20,157	304.30	325.61	0.15
US77	10202	148,822	26,749	1,167,359	1.52	1.50	1.72	20.7	20.8	13,975	13,995	218.36	218.98	0.10
US77	10203	148,822	26,749	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.12
US77	10204	148,822	26,749	2,483,647	3.34	3.28	1.77	22.7	22.8	12,386	12,406	193.53	194.15	0.09
US77	32701	148,822	26,749	2,483,647	4.78	4.66	2.51	28.9	29.1	6,800	6,820	106.25	106.87	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	2,255,835	1,145,958	4,790,983	2.67	2.40	10.08	26.5	27.4	26,000	26,299	406.25	415.60	0.19
I10	73901	2,255,835	1,145,958	4,790,983	2.55	2.30	9.67	28.9	29.7	25,000	25,299	390.63	399.97	0.18
I10	50803	2,255,835	1,145,958	4,790,983	2.56	2.31	9.70	26.2	27.0	27,500	27,799	429.69	439.04	0.20
I10	50802	2,255,835	1,145,958	4,790,983	2.56	2.31	9.69	23.8	24.5	30,333	30,632	473.95	483.30	0.22
US90	2807	165,744	146,423	1,436,461	2.65	2.58	2.67	8.1	8.2	25,333	25,355	395.83	396.52	0.18
US90	2806	165,744	146,423	1,436,461	6.02	5.66	5.88	12.7	12.9	7,122	7,144	111.28	111.97	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	78,044	26,749	1,673,506	20.00	18.45	7.74	10.9	11.2	2,900	2,910	90.63	91.27	0.07
FM2925	63003	78,044	26,749	1,673,506	20.00	12.60	36.99	7.7	9.3	587	597	18.34	18.99	0.01
FM508	34204	78,044	26,749	1,673,506	20.00	16.86	15.69	6.6	7.0	2,160	2,170	67.50	68.15	0.05
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	148,822	26,749	5,006,733	9.84	9.59	2.56	29.6	29.8	6,500	6,520	101.56	102.18	0.05
US77	32703	148,822	26,749	5,006,733	10.24	9.97	2.66	30.3	30.5	6,100	6,120	95.31	95.93	0.04
US77	32704	148,822	26,749	5,006,733	10.38	10.10	2.70	30.4	30.6	6,000	6,020	93.75	94.37	0.04
US77	32705	148,822	26,749	5,006,733	9.39	9.16	2.45	30.1	30.3	6,700	6,720	104.69	105.30	0.05
US77	32710	148,822	26,749	1,951,437	3.48	3.40	2.33	25.6	25.8	8,287	8,307	129.48	130.10	0.06
US77	32708	148,822	26,749	1,951,437	13.66	12.49	8.57	5.4	5.6	10,000	10,020	104.17	104.58	0.05
US77	3907	148,822	26,749	1,951,437	1.14	1.13	0.78	23.2	23.3	27,920	27,940	436.25	436.87	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 442 / Colorado River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	578	.	761	1,339	4,617	891	765	4,742	0.72	0.47	0.22	0.97	0.00
1	470	70,170	34,979	73,030	143,200	738,699	81,341	88,392	731,647	115.02	42.84	24.97	132.89	0.78
1	480	181	181	185	366	2,051	221	243	2,029	0.32	0.12	0.07	0.37	0.00
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	470	1,074	.	531	1,605	5,353	278	468	5,163	0.83	0.15	0.13	0.85	0.01
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	450	91,536	70,512	45,217	136,753	238,061	12,380	20,801	229,640	37.07	6.52	5.88	37.71	0.25
350	470	60,305	59,371	29,790	90,095	198,112	10,303	17,310	191,104	30.85	5.43	4.89	31.38	0.21
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	450	35,658	28,904	17,614	53,272	87,856	4,569	7,677	84,748	13.68	2.41	2.17	13.92	0.09
360	460	2,468	.	1,219	3,688	6,555	341	573	6,323	1.02	0.18	0.16	1.04	0.01
360	470	1,264	1,264	625	1,889	3,980	207	348	3,839	0.62	0.11	0.10	0.63	0.00
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	470	33,476	33,476	16,537	50,012	64,151	3,336	5,605	61,882	9.99	1.76	1.58	10.16	0.07
400	500	59,737	59,737	29,509	89,246	155,361	8,079	13,575	149,865	24.19	4.26	3.83	24.61	0.16
400	540	3,146	3,146	1,554	4,700	11,455	596	1,001	11,050	1.78	0.31	0.28	1.81	0.01
400	550	166,678	144,697	82,337	249,015	685,398	35,643	59,888	661,154	106.72	18.77	16.91	108.58	0.73
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
410	550	3,982	3,053	1,967	5,949	15,807	822	1,381	15,248	2.46	0.43	0.39	2.50	0.02
450	1	406	.	415	821	3,811	410	451	3,770	0.59	0.22	0.13	0.68	0.00
450	350	102,223	72,398	50,497	152,720	265,856	13,826	23,230	256,452	41.39	7.28	6.56	42.12	0.28
450	360	556	556	275	830	1,369	71	120	1,321	0.21	0.04	0.03	0.22	0.00
460	360	21,003	.	10,375	31,378	55,773	2,900	4,873	53,801	8.68	1.53	1.38	8.84	0.06
460	400	23,354	.	11,537	34,891	33,247	1,729	2,905	32,071	5.18	0.91	0.82	5.27	0.04
470	1	71,170	69,397	332,372	403,542	1,504,190	810,521	538,263	1,776,448	234.20	426.92	152.03	509.09	1.60
470	290	15,136	.	7,477	22,613	74,585	3,879	6,517	71,947	11.61	2.04	1.84	11.82	0.08

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 442 / Colorado River

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	3,952	3,952	1,952	5,904	12,982	675	1,134	12,523	2.02	0.36	0.32	2.06	0.01
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
480	400	5	.	2	7	11	1	1	10	0.00	0.00	0.00	0.00	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
550	400	85,923	82,851	42,445	128,368	352,838	18,349	30,830	340,358	54.94	9.66	8.71	55.89	0.37
550	410	2,525	2,525	1,247	3,772	10,023	521	876	9,668	1.56	0.27	0.25	1.59	0.01
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		4,762,111	2,584,370	4,345,600	9,107,711	32,634,964	5,716,693	5,084,610	33,267,048	5,081.29	3,011.08	1,436.11	6,656.26	34.64

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 442 / Colorado River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	450	963	.	1,268	2,231	5,130	1,160	1,125	5,165	0.80	0.61	0.32	1.09	0.01
1	470	116,950	58,298	121,717	238,667	820,776	105,912	129,989	796,700	127.80	55.79	36.71	146.87	1.31
1	480	302	302	308	610	2,279	287	357	2,210	0.35	0.15	0.10	0.41	0.00
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	470	1,791	.	884	2,675	5,947	362	688	5,622	0.93	0.19	0.19	0.92	0.01
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	450	152,560	117,520	75,362	227,922	264,512	16,120	30,590	250,043	41.18	8.49	8.64	41.04	0.42
350	470	100,509	98,951	49,650	150,159	220,125	13,415	25,456	208,083	34.27	7.07	7.19	34.15	0.35
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	450	59,430	48,174	29,357	88,787	97,618	5,949	11,289	92,278	15.20	3.13	3.19	15.14	0.16
360	460	4,114	.	2,032	6,146	7,283	444	842	6,884	1.13	0.23	0.24	1.13	0.01
360	470	2,107	2,107	1,041	3,148	4,423	270	511	4,181	0.69	0.14	0.14	0.69	0.01
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	470	55,793	55,793	27,561	83,354	71,279	4,344	8,243	67,380	11.10	2.29	2.33	11.06	0.11
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
450	1	676	.	692	1,368	4,234	534	663	4,106	0.66	0.28	0.19	0.75	0.01
450	350	170,372	120,664	84,161	254,533	295,395	18,002	34,161	279,236	45.99	9.48	9.65	45.83	0.47
450	360	926	926	458	1,384	1,522	93	176	1,438	0.24	0.05	0.05	0.24	0.00
460	360	35,005	.	17,292	52,297	61,970	3,777	7,167	58,580	9.65	1.99	2.02	9.61	0.10
460	400	38,924	.	19,228	58,152	36,941	2,251	4,272	34,920	5.75	1.19	1.21	5.73	0.06
470	1	118,616	115,662	553,954	672,570	1,671,322	1,055,366	791,563	1,935,125	260.23	555.88	223.57	592.53	2.66
470	290	25,226	.	12,462	37,688	82,873	5,050	9,584	78,339	12.90	2.66	2.71	12.86	0.13

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 442 / Colorado River

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
470	350	6,586	6,586	3,254	9,840	14,425	879	1,668	13,636	2.25	0.46	0.47	2.24	0.02
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,936,851	4,307,283	7,242,667	15,179,518	36,261,071	7,443,611	7,477,367	36,227,315	5,645.87	3,920.68	2,111.93	7,454.62	57.73

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	352,802	323,907	2,342,909	20.00	10.10	49.49	3.4	4.6	3,600	3,647	112.50	115.42	0.08
FM1764	160701	67,734	40,635	4,149,703	14.52	14.22	2.09	4.5	4.5	24,000	24,009	375.00	375.28	0.27
FM1764	160702	45,156	27,090	4,149,703	20.00	19.58	2.09	3.0	3.0	24,000	24,006	750.00	750.37	0.54
FM2918	293901	6,507	5,578	4,334,935	20.00	18.79	6.04	7.0	7.2	500	501	15.63	15.68	0.01
FM360	52706	262,949	233,127	5,014,448	20.00	12.06	39.70	9.2	11.3	1,500	1,535	46.88	49.05	0.04
FM523	100301	37,334	32,148	1,867,826	20.00	18.85	5.75	3.2	3.3	6,625	6,630	207.03	207.34	0.15
I45	11004	63,266	37,955	12,973,790	6.95	6.93	0.30	11.4	11.4	62,000	62,008	968.75	969.01	0.44
I45	11005	55,695	33,413	5,528,218	2.18	2.17	0.20	10.0	10.0	95,667	95,674	1494.8	1495.0	0.68
I45	67508	96,534	57,913	15,422,523	12.91	12.81	0.72	17.4	17.4	26,000	26,013	406.25	406.65	0.18
S134	37602	395,188	191,467	7,009,427	20.00	17.70	11.50	6.5	6.8	15,900	15,952	496.88	500.15	0.36
S146	38905	375,023	181,673	2,496,949	9.75	8.61	11.64	6.2	6.5	15,700	15,750	245.31	246.87	0.18
S146	38906	457,091	221,534	2,496,949	10.65	9.06	14.92	7.5	8.0	11,786	11,847	184.16	186.05	0.13
S146	38912	292,089	141,391	2,496,949	9.98	9.03	9.50	4.8	5.0	19,700	19,739	307.81	309.02	0.22
S197	38911	81,468	48,875	3,294,557	20.00	18.39	8.07	5.4	5.6	5,833	5,844	182.28	182.96	0.13
S288	59804	142,727	122,898	2,655,275	6.85	6.64	3.11	12.2	12.3	12,600	12,619	196.88	197.47	0.14
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
S332	58601	94,927	81,740	2,057,202	11.46	10.96	4.41	8.1	8.2	8,767	8,780	273.97	274.76	0.20
S341	62801	90,311	54,180	4,149,703	20.00	18.18	9.12	6.0	6.2	5,100	5,112	79.69	80.06	0.06
S348	68601	168,581	101,136	7,909,001	19.32	18.65	3.46	11.2	11.3	14,500	14,522	453.13	454.52	0.32
S35	17801	1,076,215	610,888	1,764,574	5.81	4.41	24.18	5.3	6.0	21,500	21,643	335.94	340.40	0.24
S35	17802	1,076,215	610,888	2,342,909	10.26	7.21	29.77	6.3	7.2	13,773	13,916	215.20	219.66	0.16
S35	17803	1,076,215	610,888	2,342,909	13.82	8.80	36.35	7.2	8.7	8,900	9,043	139.06	143.52	0.10
S35	17901	1,076,215	610,888	2,342,909	10.29	7.22	29.83	10.4	11.9	8,300	8,443	129.69	134.15	0.10
S35	17902	1,195,929	707,247	2,342,909	10.46	7.06	32.44	10.3	12.0	8,222	8,381	256.94	266.85	0.19
S35	17903	1,195,929	707,247	2,342,909	13.90	8.49	38.96	10.5	12.8	6,067	6,226	189.59	199.51	0.14
S36	18705	382,663	329,486	2,535,398	13.80	11.62	15.78	15.1	16.0	4,600	4,651	143.75	146.92	0.10
S36	18801	382,663	329,486	2,535,398	11.10	9.64	13.09	8.7	9.2	9,900	9,951	309.38	312.55	0.22
S36	18802	382,663	329,486	2,535,398	19.72	15.56	21.12	10.2	11.2	4,750	4,801	148.44	151.61	0.11
S36	18803	382,663	329,486	3,516,385	20.00	16.44	17.78	10.2	10.9	6,013	6,064	187.91	191.08	0.14
S36	18804	382,663	329,486	3,516,385	16.53	14.29	13.55	7.4	7.8	11,367	11,418	355.22	358.39	0.26
S36	18805	382,663	329,486	3,516,385	20.00	15.72	21.42	8.1	8.8	6,000	6,051	187.50	190.67	0.14
S36	18806	382,663	329,486	3,516,385	20.00	15.97	20.13	7.7	8.4	6,820	6,871	213.13	216.30	0.15
S8	325603	794,298	435,458	4,149,703	15.04	11.95	20.57	4.0	4.4	26,067	26,172	271.53	273.73	0.20
S8	325604	794,298	435,458	4,149,703	15.68	12.35	21.26	4.0	4.4	25,000	25,105	260.42	262.61	0.19
S87	37606	453,250	271,915	6,504,983	20.00	14.98	25.09	9.2	10.3	5,000	5,060	156.25	160.01	0.11
US59	17707	3,228,671	1,589,427	4,149,703	2.37	2.04	14.25	6.2	6.6	106,000	106,428	1656.3	1669.6	0.76
US75	5104	453,250	271,915	6,011,120	10.14	9.48	6.43	6.2	6.4	36,000	36,060	562.50	564.38	0.26
US90	2801	99,447	87,854	3,715,330	12.14	11.79	2.84	7.1	7.1	16,375	16,388	255.86	256.27	0.12
US90	2802	99,447	87,854	3,715,330	20.00	19.01	4.95	7.3	7.4	8,900	8,913	139.06	139.47	0.06
US90A	2710	21,115	12,668	3,715,330	13.96	13.86	0.71	3.8	3.8	26,480	26,483	413.75	413.84	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	230,956	172,371	1,252,801	20.00	7.90	60.48	7.9	12.0	660	691	20.63	22.54	0.02
FM2717	271401	116,847	91,867	2,094,784	20.00	6.38	68.10	7.9	13.5	240	255	7.50	8.47	0.01
FM2760	271403	140,869	110,753	2,568,860	20.00	11.26	43.70	9.5	12.0	660	679	20.63	21.79	0.02
S316	58001	257,717	202,620	1,642,425	20.00	5.77	71.16	4.8	9.0	740	774	23.13	25.26	0.02
S35	17904	1,195,929	707,247	2,276,676	7.94	5.78	27.29	10.5	11.9	10,317	10,476	161.20	166.16	0.12
S35	17906	965,956	534,877	2,276,676	11.85	8.16	31.13	11.8	13.6	6,150	6,278	96.09	100.10	0.07
S35	17907	965,956	534,877	2,276,676	15.25	9.64	36.79	16.4	19.5	3,430	3,558	107.19	115.19	0.08
S35	17908	965,956	534,877	2,276,676	20.00	6.78	66.09	6.4	10.7	2,638	2,766	82.44	90.44	0.06
S35	17909	919,131	534,877	2,276,676	18.12	10.93	39.69	15.3	18.5	3,100	3,222	96.88	104.49	0.07
S35	17910	919,131	534,877	1,795,577	8.02	5.86	26.97	10.0	11.2	8,500	8,622	132.81	136.62	0.10
S35	18001	836,415	470,290	1,795,577	6.49	5.11	21.39	13.1	14.3	7,964	8,075	248.88	255.81	0.18
S60	24101	230,956	172,371	1,952,424	16.05	13.71	14.59	10.8	11.4	4,260	4,291	133.13	135.04	0.10
S60	24102	230,956	172,371	2,276,676	15.73	13.75	12.55	8.7	9.1	6,325	6,356	98.83	99.79	0.07
S60	24103	230,956	172,371	2,276,676	20.00	14.53	27.33	3.6	4.1	5,800	5,831	90.63	91.58	0.07
S60	24104	230,956	172,371	2,276,676	20.00	13.56	32.22	6.9	8.1	2,400	2,431	75.00	76.91	0.05
US59	8905	3,490,637	1,822,554	2,112,832	2.78	1.97	29.22	21.1	23.7	13,600	14,063	212.50	226.97	0.10
US59	8904	3,490,637	1,822,554	2,112,832	2.78	1.97	29.25	21.4	24.0	13,400	13,863	209.38	223.84	0.10
US59	8903	3,490,637	1,822,554	2,112,832	2.39	1.76	26.18	21.8	24.1	15,350	15,813	239.84	254.31	0.12
US59	8901	3,490,637	1,822,554	5,841,189	11.03	6.93	37.23	13.6	16.2	14,767	15,230	230.73	245.20	0.11
US59	8804	3,092,333	1,526,344	5,841,189	11.42	7.40	35.23	15.0	17.6	12,867	13,277	201.05	213.86	0.10
US87	14306	141,521	104,557	5,841,189	20.00	16.90	15.51	9.2	9.8	2,850	2,869	89.06	90.24	0.04
US87	14307	141,521	104,557	5,841,189	20.00	15.29	23.53	9.2	10.2	1,700	1,719	53.13	54.30	0.02
US87	14308	141,521	104,557	8,872,292	20.00	18.40	7.99	9.2	9.5	6,020	6,039	188.13	189.30	0.09
US87	14309	141,521	104,557	8,872,292	20.00	18.46	7.72	10.1	10.4	5,667	5,686	177.09	178.27	0.08
US87	14310	141,521	104,557	5,009,267	19.39	18.48	4.70	11.8	12.0	8,280	8,299	258.75	259.92	0.12
US87	14401	141,521	104,557	5,009,267	20.00	17.98	10.08	6.7	7.0	6,363	6,382	198.84	200.02	0.09
US87	14403	141,521	104,557	2,276,676	20.00	17.64	11.79	7.5	7.9	4,800	4,819	150.00	151.17	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	15,606	8,879	3,436,383	20.00	19.64	1.78	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	18,028	10,257	3,074,361	20.00	19.11	4.44	6.7	6.8	2,000	2,002	62.50	62.65	0.04
S35	18003	47,179	15,963	1,791,737	15.08	14.56	3.45	14.0	14.2	3,200	3,206	100.00	100.39	0.07
S35	18004	47,179	15,963	1,791,737	6.71	6.61	1.56	9.5	9.6	10,592	10,598	331.00	331.39	0.24
S35	18005	47,179	15,963	1,791,737	7.71	7.57	1.79	9.9	10.0	8,867	8,873	277.09	277.48	0.20
S358	61701	2,996,696	1,506,940	2,810,157	5.12	3.44	32.72	4.3	5.1	48,638	49,035	506.65	514.93	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
S361	18010	33,634	19,137	1,470,362	9.81	9.62	1.98	10.3	10.4	5,500	5,504	171.88	172.15	0.12
S44	10201	2,996,696	1,506,940	1,316,451	8.73	3.13	64.13	7.4	11.9	7,700	8,097	120.31	132.73	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,487,762	808,648	2,129,917	4.02	3.21	20.16	19.9	21.5	10,043	10,240	156.92	163.09	0.07
US77	37103	1,487,762	808,648	2,129,917	20.00	5.02	74.89	18.8	33.4	900	1,097	14.06	20.23	0.01
US77	37104	3,092,152	1,526,163	2,483,647	6.83	3.87	43.32	18.8	23.2	7,300	7,710	114.06	126.88	0.06
US77	37203	3,085,990	1,522,989	2,483,647	15.17	5.63	62.90	7.8	12.3	7,933	8,342	123.95	136.74	0.06
US77	37201	3,085,990	1,522,989	2,483,647	4.38	2.94	32.87	16.2	18.8	13,200	13,609	206.25	219.04	0.10
US77	37301	3,085,990	1,522,989	1,167,359	1.42	1.06	25.20	16.0	17.7	19,475	19,884	304.30	317.09	0.14
US77	10202	89,293	16,049	1,167,359	1.52	1.51	1.04	20.7	20.8	13,975	13,987	218.36	218.73	0.10
US77	10203	89,293	16,049	1,167,359	1.33	1.32	0.91	20.4	20.4	16,300	16,312	254.69	255.06	0.12
US77	10204	89,293	16,049	2,483,647	3.34	3.30	1.07	22.7	22.8	12,386	12,398	193.53	193.90	0.09
US77	32701	89,293	16,049	2,483,647	4.78	4.70	1.52	28.9	29.0	6,800	6,812	106.25	106.62	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
I10	73902	1,353,501	687,575	4,790,983	2.67	2.50	6.30	26.5	27.0	26,000	26,180	406.25	411.86	0.19
I10	73901	1,353,501	687,575	4,790,983	2.55	2.40	6.04	28.9	29.4	25,000	25,180	390.63	396.23	0.18
I10	50803	1,353,501	687,575	4,790,983	2.56	2.41	6.06	26.2	26.6	27,500	27,680	429.69	435.30	0.20
I10	50802	1,353,501	687,575	4,790,983	2.56	2.40	6.05	23.8	24.2	30,333	30,513	473.95	479.56	0.22
US90	2807	99,447	87,854	1,436,461	2.65	2.60	1.62	8.1	8.1	25,333	25,346	395.83	396.24	0.18
US90	2806	99,447	87,854	1,436,461	6.02	5.80	3.61	12.7	12.8	7,122	7,135	111.28	111.69	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM106	142503	46,827	16,049	1,673,506	20.00	19.04	4.80	10.9	11.1	2,900	2,906	90.63	91.01	0.07
FM2925	63003	46,827	16,049	1,673,506	20.00	14.79	26.05	7.7	8.7	587	593	18.34	18.73	0.01

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 442 / Colorado River
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

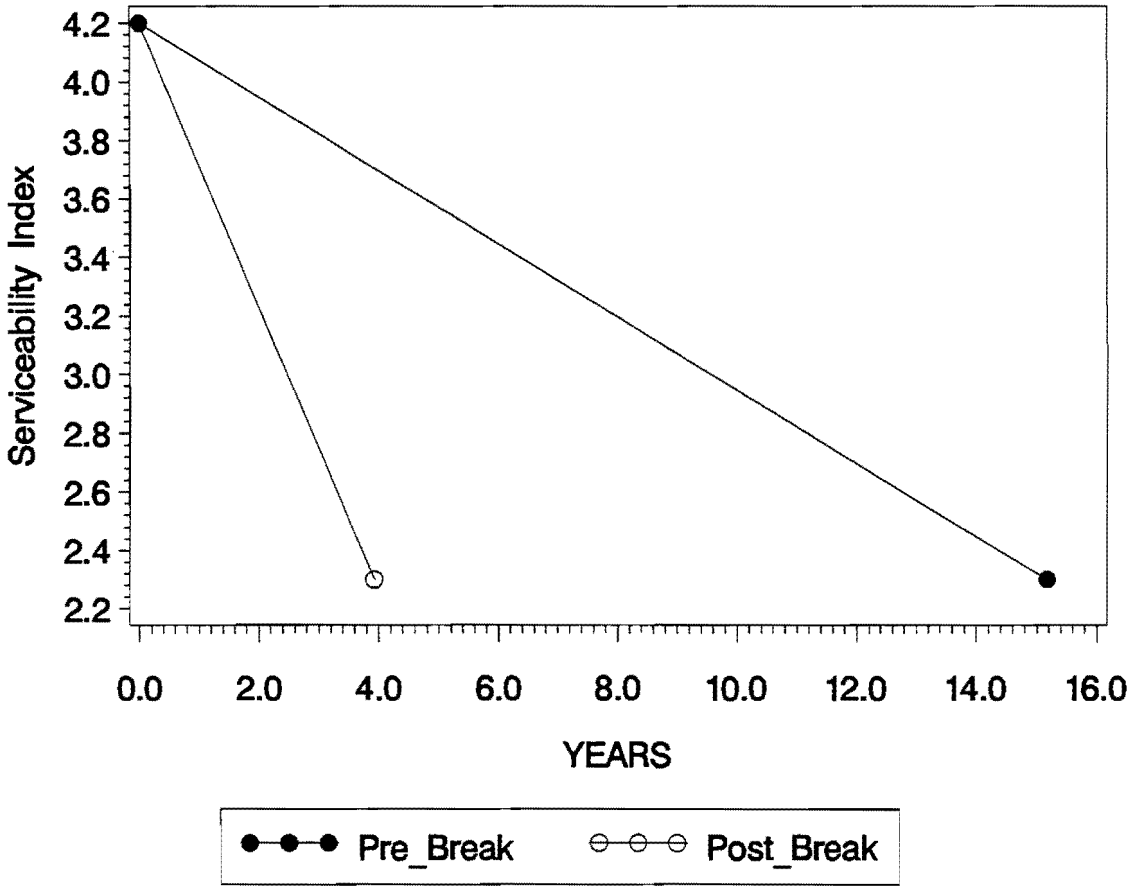
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM508	34204	46,827	16,049	1,673,506	20.00	17.99	10.05	6.6	6.9	2,160	2,166	67.50	67.89	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	89,293	16,049	5,006,733	9.84	9.69	1.55	29.6	29.7	6,500	6,512	101.56	101.93	0.05
US77	32703	89,293	16,049	5,006,733	10.24	10.07	1.62	30.3	30.4	6,100	6,112	95.31	95.68	0.04
US77	32704	89,293	16,049	5,006,733	10.38	10.21	1.64	30.4	30.5	6,000	6,012	93.75	94.12	0.04
US77	32705	89,293	16,049	5,006,733	9.39	9.25	1.48	30.1	30.2	6,700	6,712	104.69	105.06	0.05
US77	32710	89,293	16,049	1,951,437	3.48	3.43	1.41	25.6	25.7	8,287	8,299	129.48	129.85	0.06
US77	32708	89,293	16,049	1,951,437	13.66	12.93	5.32	5.4	5.5	10,000	10,012	104.17	104.41	0.05
US77	3907	89,293	16,049	1,951,437	1.14	1.13	0.47	23.2	23.2	27,920	27,932	436.25	436.62	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX I

Port O'Connor Break Point (474)

PAVEMENT LIFETIME

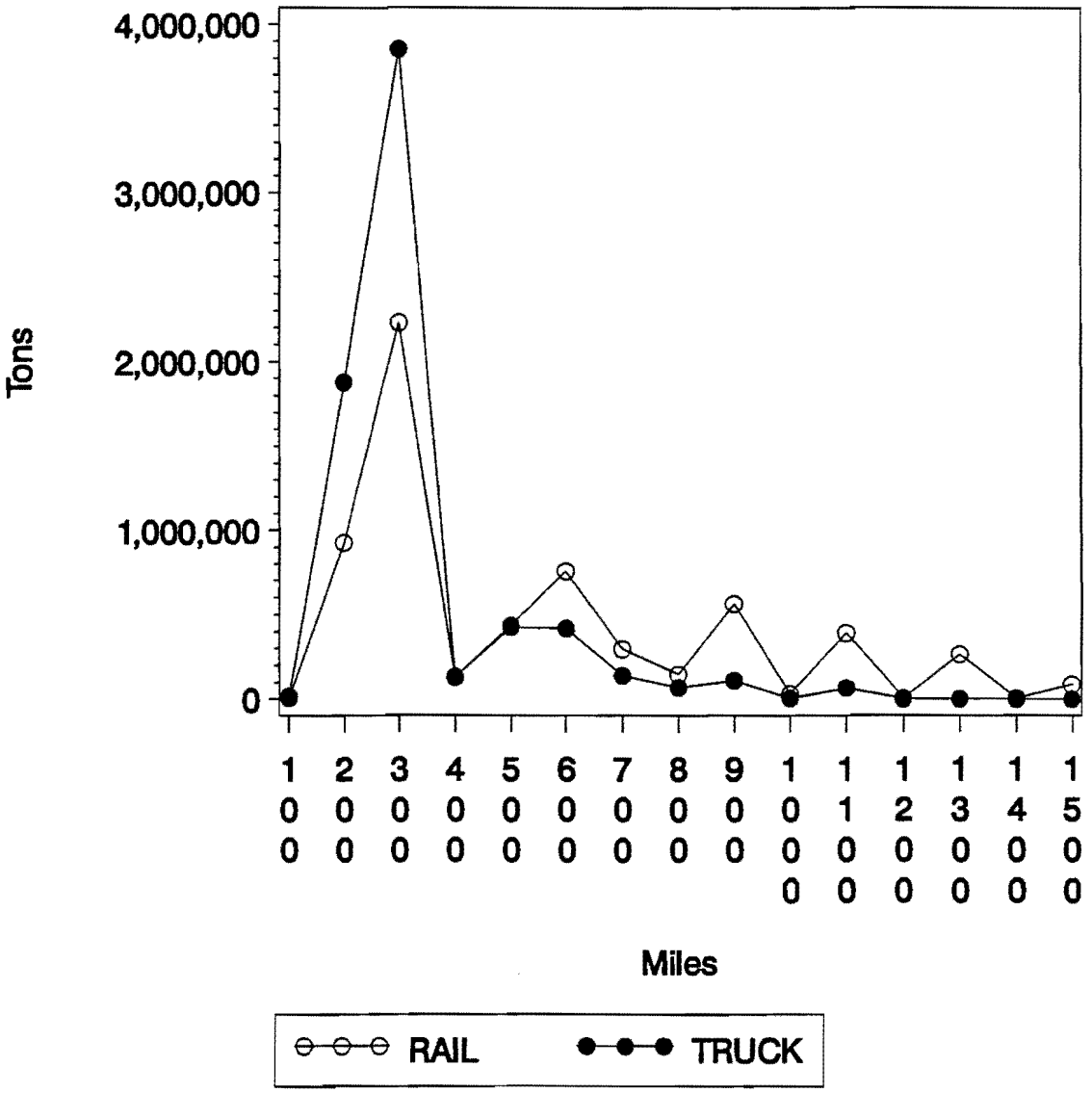
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 474 / Port O'Connor
HIGHWAY=US77 CONTROL/SECTION=37203



TONS TRANSPORTED

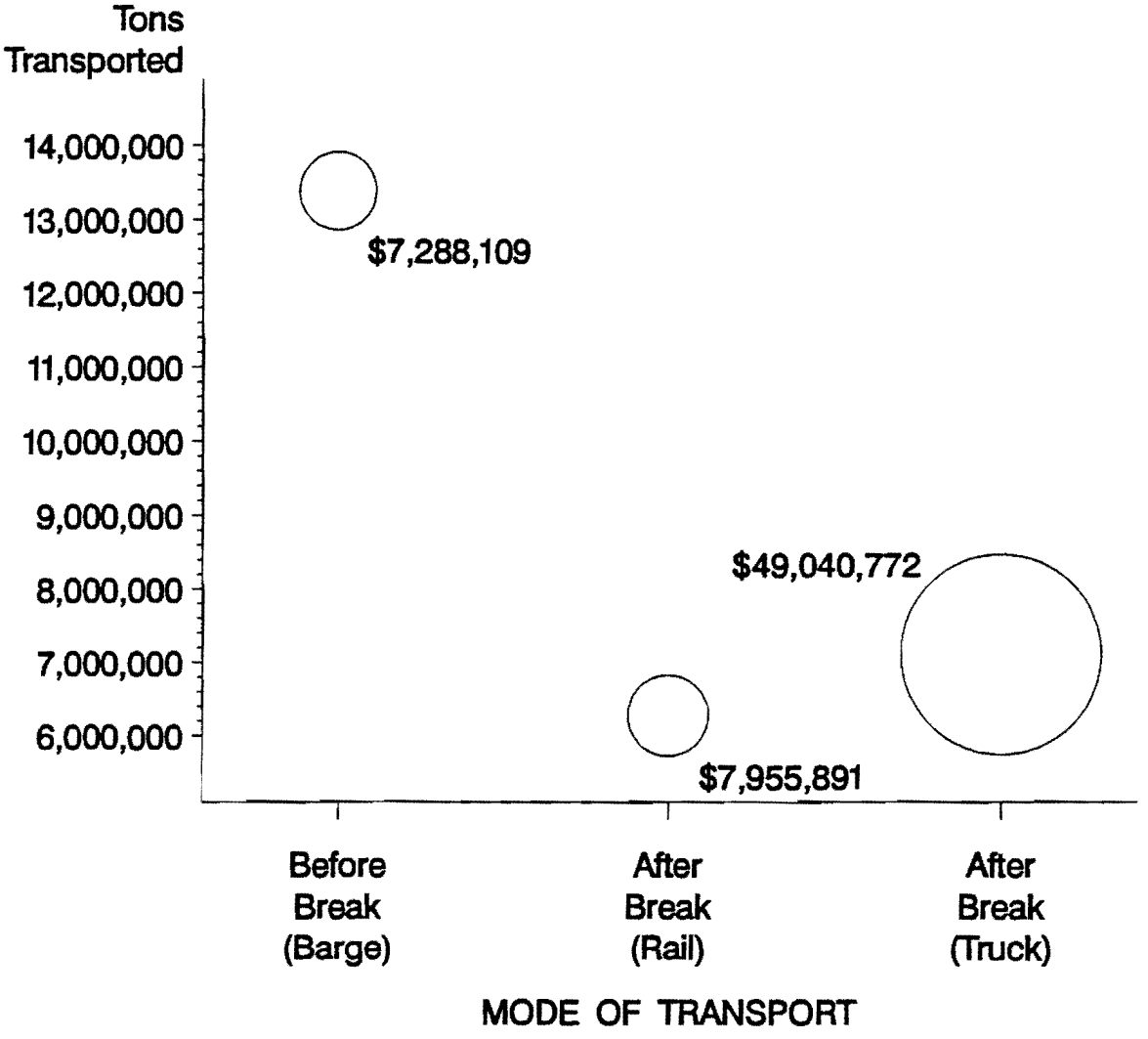
AS A FUNCTION OF DISTANCE

BREAK POINT 474 / Port O'Connor



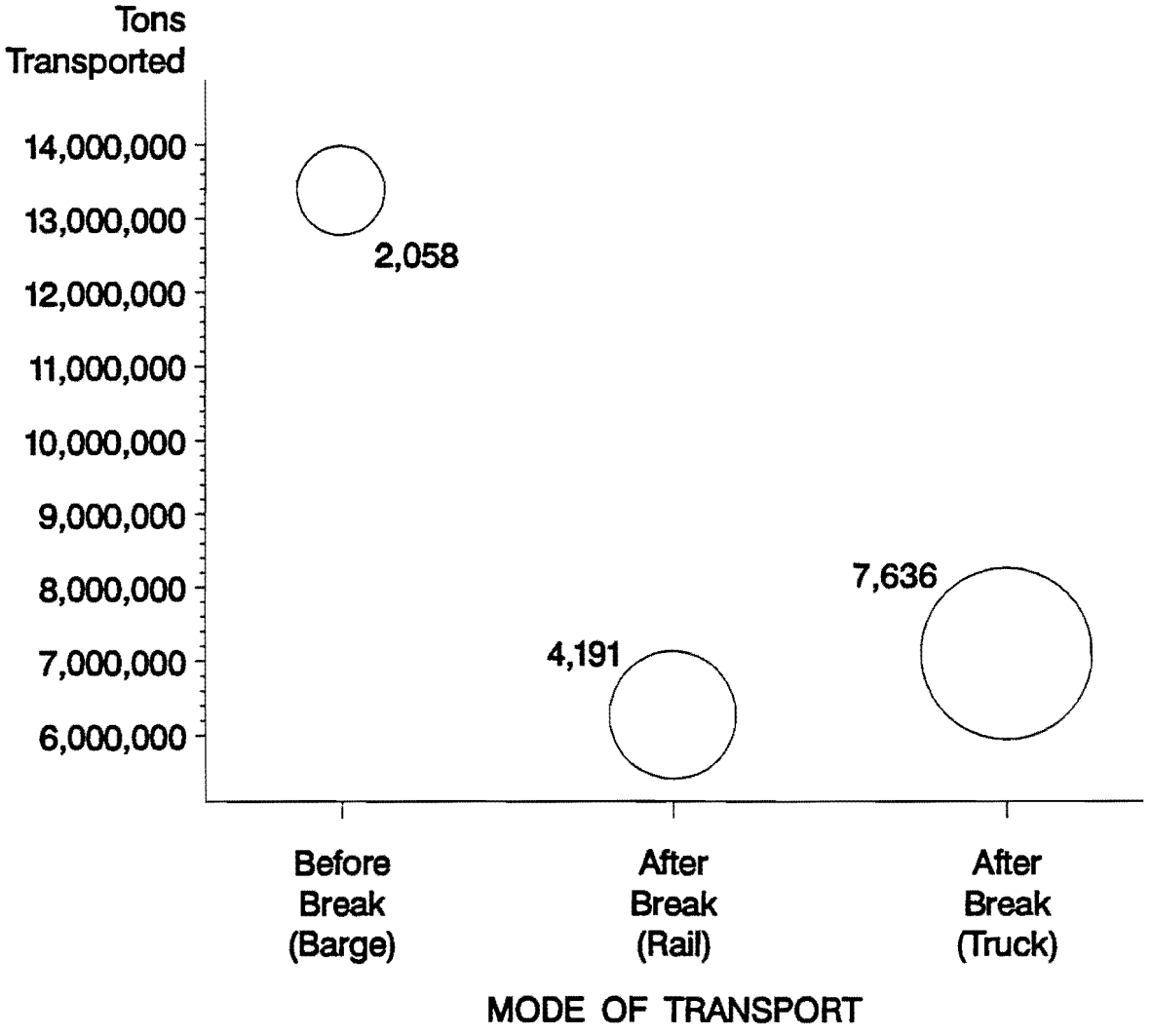
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 474 / Port O'Connor



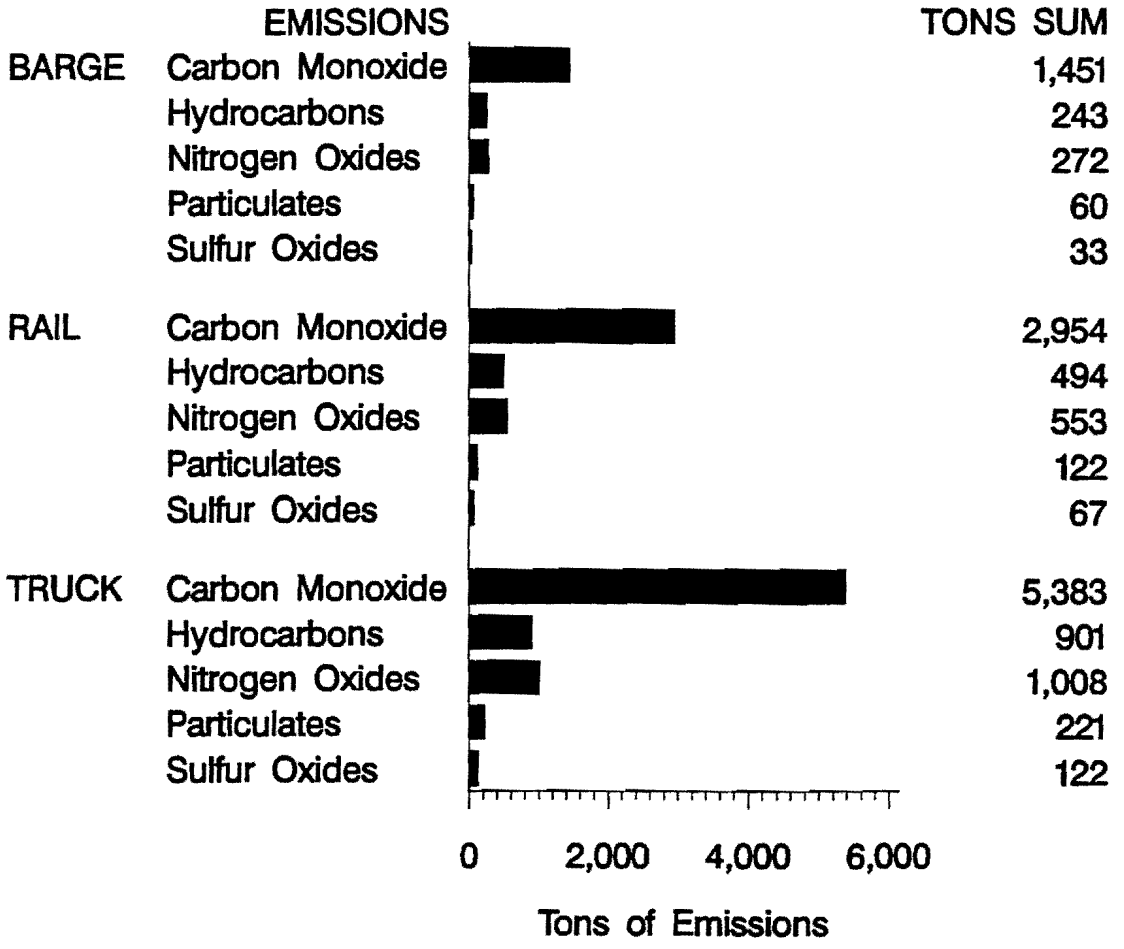
EMISSIONS (Tons)

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 474 / Port O'Connor



EMISSIONS (Tons)

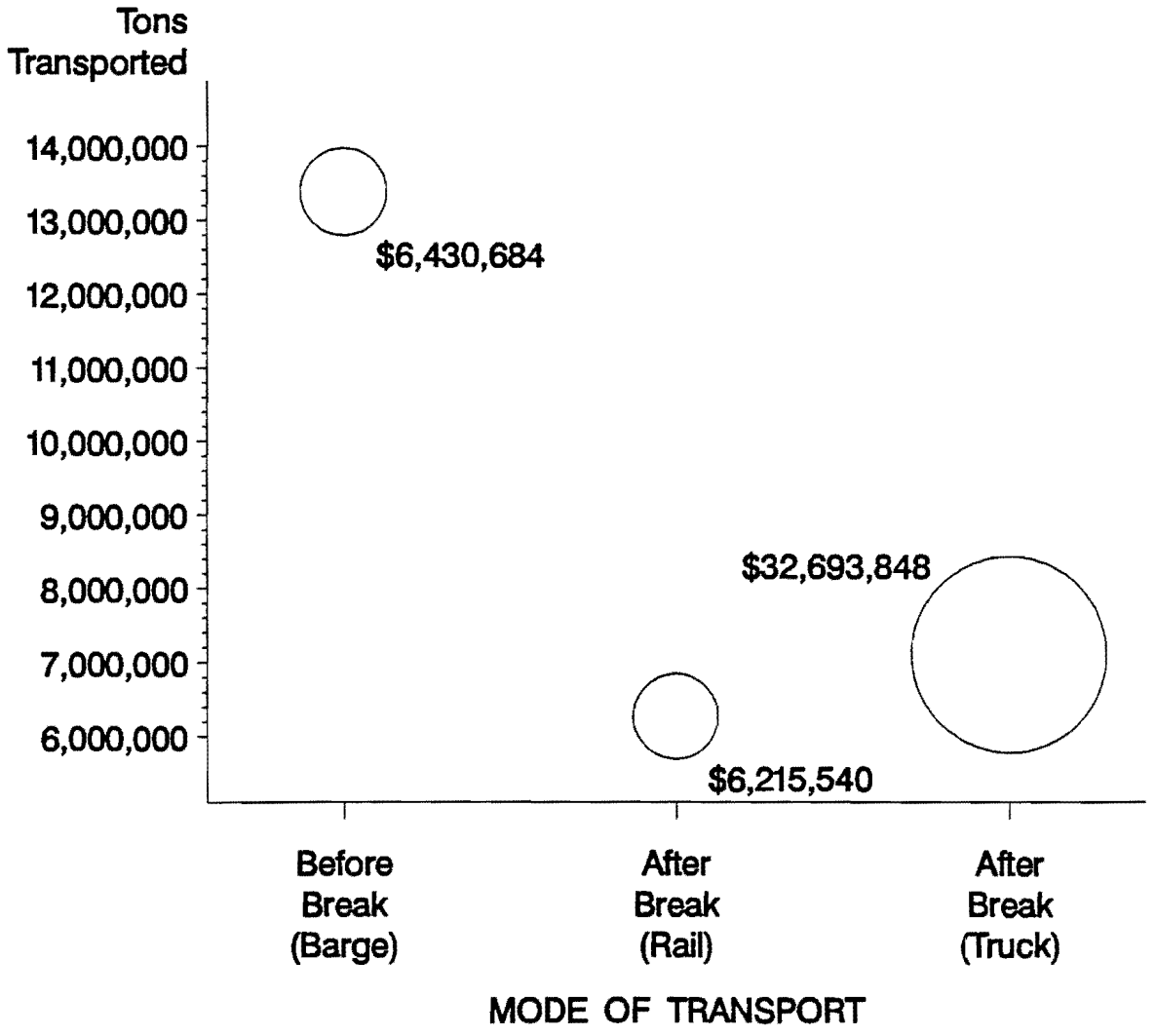
LOW END OF TON-MILE EFFICIENCY
BREAK POINT 474 / Port O'Connor



Note: Barge emissions are pre-break
Rail & Truck emissions are post-break

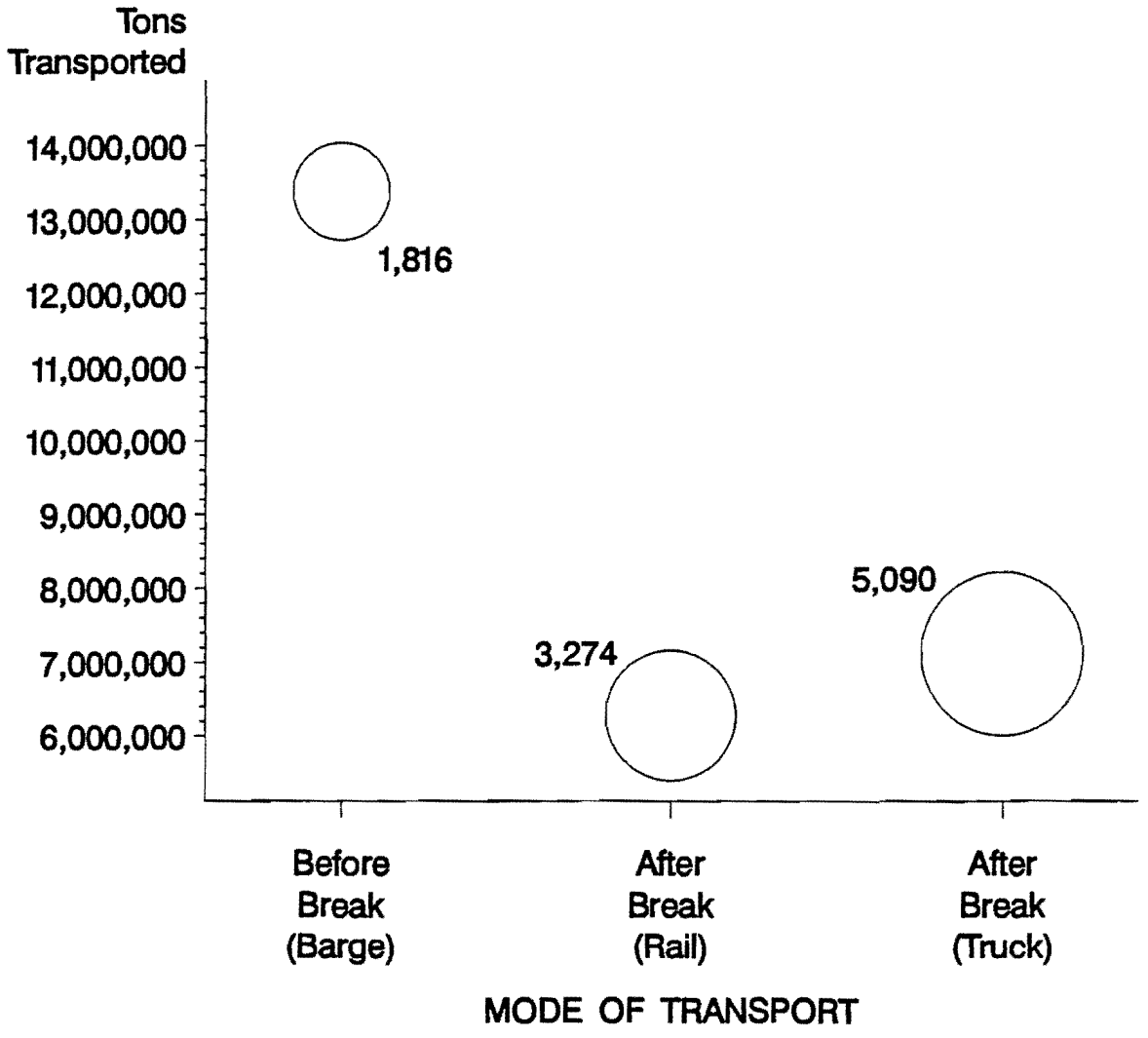
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 474 / Port O'Connor



EMISSIONS (Tons)

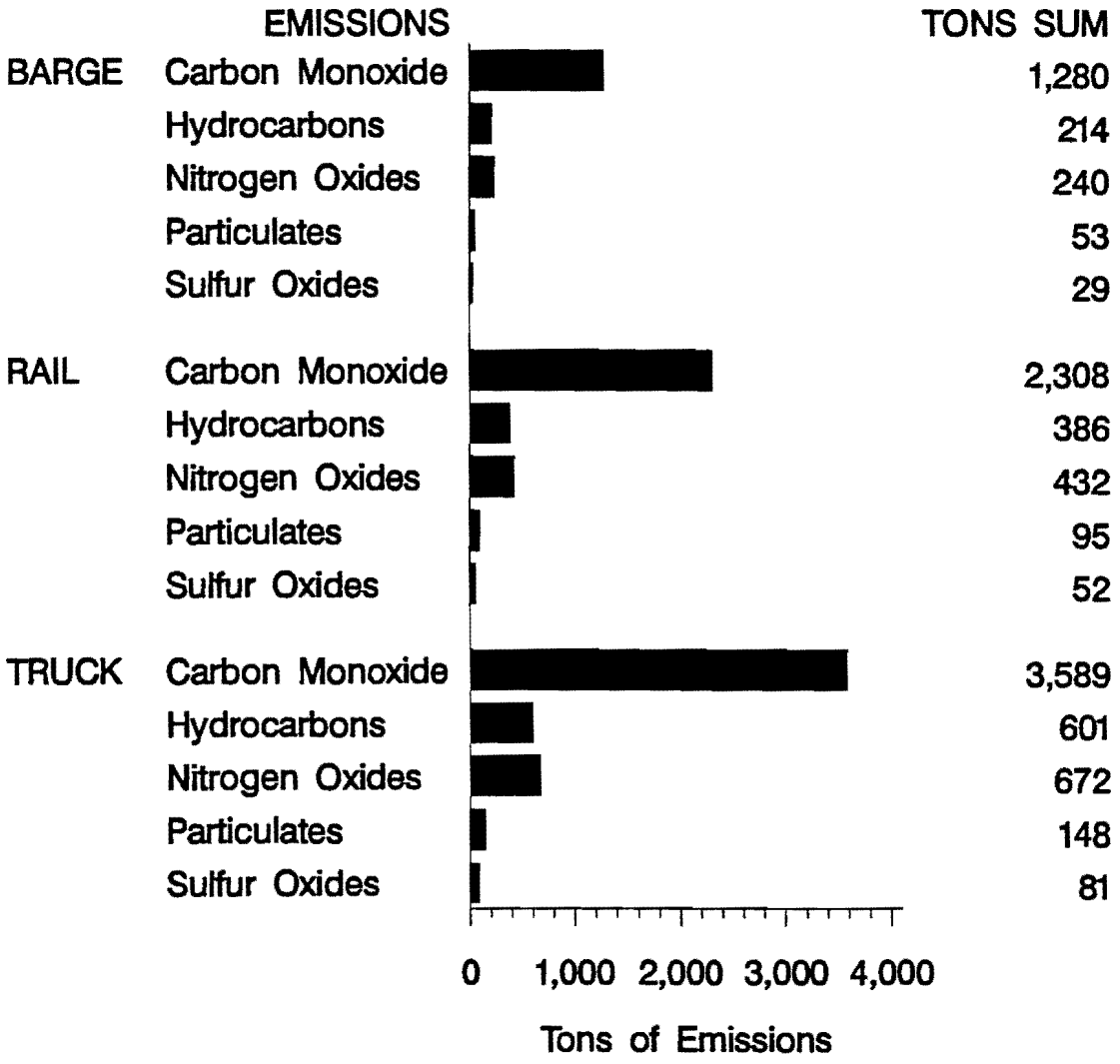
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 474 / Port O'Connor



EMISSIONS (Tons)

HIGH END OF TON-MILE EFFICIENCY

BREAK POINT 474 / Port O'Connor



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 474 / Port O'Connor

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	500	143,824	114,235	147,864	291,688	1,566,059	170,370	186,242	1,550,187	243.84	89.74	52.60	280.97	1.66
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	500	135,355	135,355	66,863	202,218	807,108	41,973	70,522	778,558	125.67	22.11	19.92	127.86	0.86
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	500	4,748	4,748	2,346	7,094	26,908	1,399	2,351	25,957	4.19	0.74	0.66	4.26	0.03
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	500	206,801	191,589	102,157	308,958	820,908	42,690	71,728	791,871	127.82	22.49	20.26	130.04	0.87
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	500	115,887	55,945	57,247	173,134	444,158	23,098	38,809	428,447	69.16	12.17	10.96	70.36	0.47
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	500	56,308	56,308	27,816	84,124	184,982	9,620	16,163	178,438	28.80	5.07	4.57	29.30	0.20
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	500	99,562	99,562	49,182	148,744	258,935	13,466	22,625	249,776	40.32	7.09	6.39	41.02	0.27
400	540	5,244	5,244	2,590	7,834	19,092	993	1,668	18,417	2.97	0.52	0.47	3.02	0.02
400	550	277,797	241,162	137,228	415,025	1,142,330	59,406	99,813	1,101,923	177.86	31.29	28.19	180.96	1.21
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
410	550	6,637	5,089	3,278	9,915	26,344	1,370	2,302	25,413	4.10	0.72	0.65	4.17	0.03
460	550	19,522	.	9,644	29,166	52,376	2,724	4,576	50,523	8.15	1.43	1.29	8.30	0.06
470	480	412	7	204	616	56	3	5	54	0.01	0.00	0.00	0.01	0.00
470	500	7,612	7,612	3,760	11,372	5,210	271	455	5,025	0.81	0.14	0.13	0.83	0.01
480	350	1,639	.	810	2,449	5,610	292	490	5,411	0.87	0.15	0.14	0.89	0.01
480	400	8	.	4	12	18	1	2	17	0.00	0.00	0.00	0.00	0.00
480	470	1,606	315	794	2,400	220	11	19	212	0.03	0.01	0.01	0.03	0.00
500	1	44,204	41,011	91,451	135,655	601,180	202,684	147,762	656,101	93.60	106.76	41.73	158.63	0.64
500	280	104,890	29,123	51,815	156,705	629,486	32,736	55,002	607,219	98.01	17.24	15.53	99.72	0.67
500	290	16,979	16,979	8,387	25,366	95,287	4,955	8,326	91,916	14.84	2.61	2.35	15.09	0.10
500	330	14,323	.	7,076	21,399	66,661	3,467	5,825	64,303	10.38	1.83	1.65	10.56	0.07
500	350	614,924	169,091	303,765	918,689	2,442,522	127,021	213,419	2,356,124	380.30	66.90	60.28	386.93	2.59
500	360	200,699	163,505	99,143	299,842	769,215	40,002	67,211	742,006	119.77	21.07	18.98	121.85	0.82
500	380	3,070	1,282	1,517	4,587	10,086	525	881	9,730	1.57	0.28	0.25	1.60	0.01
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
550	400	143,205	138,085	70,742	213,947	588,064	30,582	51,383	567,263	91.56	16.11	14.51	93.16	0.62
550	410	4,208	4,208	2,079	6,287	16,705	869	1,460	16,114	2.60	0.46	0.41	2.65	0.02
550	450	27,123	5,447	13,399	40,522	77,966	4,055	6,812	75,209	12.14	2.14	1.92	12.35	0.08
550	470	7,039	6,430	3,477	10,516	15,416	802	1,347	14,871	2.40	0.42	0.38	2.44	0.02
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		7,109,316	3,702,109	6,273,263	13,382,579	49,040,772	7,955,891	7,288,109	49,708,554	7,635.68	4,190.51	2,058.47	9,767.71	52.05

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
460	550	19,522	.	9,644	29,166	34,917	2,128	4,038	33,007	5.44	1.12	1.14	5.42	0.06
470	480	412	7	204	616	38	2	4	36	0.01	0.00	0.00	0.01	0.00
470	500	7,612	7,612	3,760	11,372	3,473	212	402	3,283	0.54	0.11	0.11	0.54	0.01
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
480	470	1,606	315	794	2,400	147	9	17	139	0.02	0.00	0.00	0.02	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
550	450	27,123	5,447	13,399	40,522	51,978	3,168	6,011	49,134	8.09	1.67	1.70	8.06	0.08
550	470	7,039	6,430	3,477	10,516	10,277	626	1,189	9,715	1.60	0.33	0.34	1.59	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,109,316	3,702,109	6,273,263	13,382,579	32,693,848	6,215,540	6,430,684	32,478,704	5,090.45	3,273.83	1,816.30	6,547.99	52.05

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	532,211	484,053	2,342,909	20.00	8.07	59.65	3.4	5.3	3,600	3,671	112.50	116.91	0.08
FM1764	160701	97,709	60,072	4,149,703	14.52	14.09	2.98	4.5	4.6	24,000	24,013	375.00	375.40	0.27
FM1764	160702	65,139	40,048	4,149,703	20.00	19.40	2.98	3.0	3.0	24,000	24,009	750.00	750.54	0.54
FM2918	293901	10,845	9,297	4,334,935	20.00	18.07	9.67	7.0	7.3	500	501	15.63	15.71	0.01
FM360	52706	438,249	388,544	5,014,448	20.00	9.54	52.32	9.2	12.6	1,500	1,558	46.88	50.51	0.04
FM523	100301	52,823	48,042	1,867,826	20.00	18.41	7.95	3.2	3.3	6,625	6,632	207.03	207.47	0.15
I45	11004	91,265	56,110	12,973,790	6.95	6.92	0.44	11.4	11.4	62,000	62,012	968.75	969.13	0.44
I45	11005	80,342	49,395	5,528,218	2.18	2.17	0.28	10.0	10.0	95,667	95,678	1494.8	1495.1	0.68
I45	67508	139,255	85,615	15,422,523	12.91	12.77	1.04	17.4	17.4	26,000	26,018	406.25	406.83	0.18
S134	37602	577,776	254,471	7,009,427	20.00	16.81	15.97	6.5	6.9	15,900	15,977	496.88	501.66	0.36
S146	38905	548,304	241,454	2,496,949	9.75	8.17	16.14	6.2	6.6	15,700	15,773	245.31	247.58	0.18
S146	38906	668,247	294,431	2,496,949	10.65	8.48	20.40	7.5	8.2	11,786	11,875	184.16	186.93	0.13
S146	38912	427,094	187,917	2,496,949	9.98	8.65	13.31	4.8	5.1	19,700	19,757	307.81	309.58	0.22
S197	38911	117,522	72,254	3,294,557	20.00	17.75	11.23	5.4	5.7	5,833	5,849	182.28	183.26	0.13
S288	59804	201,941	183,661	2,655,275	6.85	6.55	4.34	12.2	12.4	12,600	12,627	196.88	197.71	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	134,309	122,153	2,057,202	11.46	10.76	6.13	8.1	8.3	8,767	8,785	273.97	275.08	0.20
S341	62801	130,278	80,097	4,149,703	20.00	17.47	12.64	6.0	6.3	5,100	5,117	79.69	80.23	0.06
S348	68601	243,186	149,514	7,909,001	19.32	18.37	4.92	11.2	11.4	14,500	14,532	453.13	455.14	0.33
S35	17801	1,235,067	623,218	1,764,574	5.81	4.26	26.79	5.3	6.1	21,500	21,664	335.94	341.06	0.24
S35	17802	1,235,067	623,218	2,342,909	10.26	6.90	32.73	6.3	7.4	13,773	13,937	215.20	220.32	0.16
S35	17803	1,235,067	623,218	2,342,909	13.82	8.35	39.59	7.2	8.9	8,900	9,064	139.06	144.18	0.10
S35	17901	1,235,067	623,218	2,342,909	10.29	6.91	32.78	10.4	12.1	8,300	8,464	129.69	134.81	0.10
S35	17902	1,339,872	728,023	2,342,909	10.46	6.80	34.98	10.3	12.2	8,222	8,400	256.94	268.04	0.19
S35	17903	1,339,872	728,023	2,342,909	13.90	8.11	41.69	10.5	13.0	6,067	6,245	189.59	200.70	0.14
S36	18705	543,054	493,350	2,535,398	13.80	10.90	21.00	15.1	16.4	4,600	4,672	143.75	148.25	0.11
S36	18801	543,054	493,350	2,535,398	11.10	9.14	17.62	8.7	9.4	9,900	9,972	309.38	313.88	0.22
S36	18802	543,054	493,350	2,535,398	19.72	14.29	27.53	10.2	11.6	4,750	4,822	148.44	152.94	0.11
S36	18803	543,054	493,350	3,516,385	20.00	15.30	23.48	10.2	11.2	6,013	6,085	187.91	192.41	0.14
S36	18804	543,054	493,350	3,516,385	16.53	13.52	18.20	7.4	8.0	11,367	11,439	355.22	359.72	0.26
S36	18805	543,054	493,350	3,516,385	20.00	14.42	27.89	8.1	9.2	6,000	6,072	187.50	192.00	0.14
S36	18806	543,054	493,350	3,516,385	20.00	14.73	26.34	7.7	8.6	6,820	6,892	213.13	217.63	0.16
S8	325603	893,804	382,041	4,149,703	15.04	11.65	22.57	4.0	4.4	26,067	26,186	271.53	274.00	0.20
S8	325604	893,804	382,041	4,149,703	15.68	12.03	23.31	4.0	4.5	25,000	25,119	260.42	262.89	0.19
S87	37606	653,835	401,985	6,504,983	20.00	13.48	32.58	9.2	10.7	5,000	5,087	156.25	161.67	0.12
US59	17707	5,143,611	2,474,784	4,149,703	2.37	1.88	20.93	6.2	6.8	106,000	106,682	1656.3	1677.6	0.76
US75	5104	653,835	401,985	6,011,120	10.14	9.22	9.02	6.2	6.5	36,000	36,087	562.50	565.21	0.26
US90	2801	79,901	60,637	3,715,330	12.14	11.86	2.29	7.1	7.1	16,375	16,386	255.86	256.19	0.12
US90	2802	79,901	60,637	3,715,330	20.00	19.20	4.01	7.3	7.4	8,900	8,911	139.06	139.39	0.06
US90A	2710	30,460	18,727	3,715,330	13.96	13.81	1.02	3.8	3.8	26,480	26,484	413.75	413.88	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	27,123	5,447	1,252,801	20.00	16.95	15.23	7.9	8.4	660	664	20.63	20.85	0.01
FM2717	271401	8,305	6,512	2,094,784	20.00	17.37	13.17	7.9	8.3	240	241	7.50	7.57	0.01
FM2760	271403	10,012	7,851	2,568,860	20.00	18.95	5.23	9.5	9.7	660	661	20.63	20.71	0.01
S172	42001	19,522	.	1,642,425	17.99	17.65	1.89	23.0	23.1	1,500	1,503	46.88	47.04	0.03
S316	58001	18,317	14,363	1,642,425	20.00	17.02	14.92	4.8	5.1	740	742	23.13	23.28	0.02
S35	17904	1,339,872	728,023	2,276,676	7.94	5.59	29.60	10.5	12.0	10,317	10,495	161.20	166.76	0.12
S35	17906	1,339,872	728,023	2,276,676	11.85	7.28	38.54	11.8	14.3	6,150	6,328	96.09	101.65	0.07
S35	17907	1,339,872	728,023	2,276,676	15.25	8.44	44.67	16.4	20.6	3,430	3,608	107.19	118.29	0.08
S35	17908	1,339,872	728,023	2,276,676	20.00	5.40	73.00	6.4	12.3	2,638	2,816	82.44	93.54	0.07
S35	17909	1,359,394	728,023	2,276,676	18.12	9.18	49.32	15.3	20.0	3,100	3,280	96.88	108.14	0.08
S35	17910	1,349,503	735,956	1,795,577	8.02	5.20	35.15	10.0	11.8	8,500	8,679	132.81	138.41	0.10
S35	18001	1,345,845	735,635	1,795,577	6.49	4.52	30.45	13.1	15.0	7,964	8,142	248.88	260.03	0.19
S60	24101	27,123	5,447	1,952,424	16.05	15.74	1.97	10.8	10.9	4,260	4,264	133.13	133.35	0.10
S60	24102	27,123	5,447	2,276,676	15.73	15.47	1.66	8.7	8.7	6,325	6,329	98.83	98.94	0.07
S60	24103	27,123	5,447	2,276,676	20.00	19.15	4.23	3.6	3.7	5,800	5,804	90.63	90.74	0.06
S60	24104	27,123	5,447	2,276,676	20.00	18.94	5.29	6.9	7.0	2,400	2,404	75.00	75.22	0.05
US59	8905	5,608,983	2,868,775	2,112,832	2.78	1.67	39.88	21.1	25.2	13,600	14,344	212.50	235.75	0.11
US59	8904	5,628,506	2,868,775	2,112,832	2.78	1.67	40.00	21.4	25.6	13,400	14,146	209.38	232.70	0.11
US59	8903	5,628,506	2,868,775	2,112,832	2.39	1.52	36.38	21.8	25.4	15,350	16,096	239.84	263.17	0.12
US59	8901	5,628,506	2,868,775	5,841,189	11.03	5.64	48.89	13.6	17.7	14,767	15,513	230.73	254.06	0.12
US59	8804	5,207,272	2,555,481	5,841,189	11.42	5.96	47.80	15.0	19.4	12,867	13,558	201.05	222.63	0.10
US87	14306	9,058	6,751	5,841,189	20.00	19.77	1.16	9.2	9.2	2,850	2,851	89.06	89.14	0.04
US87	14307	9,058	6,751	5,841,189	20.00	19.61	1.93	9.2	9.3	1,700	1,701	53.13	53.20	0.02
US87	14308	9,058	6,751	8,872,292	20.00	19.89	0.55	9.2	9.2	6,020	6,021	188.13	188.20	0.09
US87	14309	9,058	6,751	8,872,292	20.00	19.89	0.53	10.1	10.2	5,667	5,668	177.09	177.17	0.08
US87	14310	9,058	6,751	5,009,267	19.39	19.33	0.31	11.8	11.8	8,280	8,281	258.75	258.83	0.12
US87	14401	9,058	6,751	5,009,267	20.00	19.86	0.71	6.7	6.8	6,363	6,364	198.84	198.92	0.09
US87	14403	9,058	6,751	2,276,676	20.00	19.83	0.85	7.5	7.5	4,800	4,801	150.00	150.08	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	26,010	14,799	3,436,383	20.00	19.41	2.93	5.8	5.9	5,100	5,103	79.69	79.80	0.06
FM2725	275601	30,046	17,095	3,074,361	20.00	18.56	7.19	6.7	6.9	2,000	2,004	62.50	62.75	0.04
S35	18003	78,632	26,605	1,791,737	15.08	14.23	5.62	14.0	14.3	3,200	3,210	100.00	100.65	0.07
S35	18004	78,632	26,605	1,791,737	6.71	6.54	2.58	9.5	9.6	10,592	10,602	331.00	331.65	0.24
S35	18005	78,632	26,605	1,791,737	7.71	7.48	2.95	9.9	10.0	8,867	8,877	277.09	277.75	0.20
S358	61701	5,048,178	2,523,443	2,810,157	5.12	2.81	45.03	4.3	5.6	48,638	49,308	506.65	520.59	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S361	18010	56,056	31,894	1,470,362	9.81	9.49	3.25	10.3	10.4	5,500	5,507	171.88	172.34	0.12
S44	10201	5,048,178	2,523,443	1,316,451	8.73	2.18	75.08	7.4	14.8	7,700	8,370	120.31	141.23	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,533,288	1,359,624	2,129,917	4.02	2.81	30.07	19.9	22.5	10,043	10,379	156.92	167.42	0.08
US77	37103	2,533,288	1,359,624	2,129,917	20.00	3.29	83.55	18.8	40.9	900	1,236	14.06	24.56	0.01
US77	37104	5,207,272	2,555,481	2,483,647	6.83	2.98	56.28	18.8	25.9	7,300	7,991	114.06	135.64	0.06
US77	37203	5,197,001	2,550,192	2,483,647	15.17	3.93	74.06	7.8	15.2	7,933	8,622	123.95	145.49	0.07
US77	37201	5,197,001	2,550,192	2,483,647	4.38	2.40	45.19	16.2	20.4	13,200	13,889	206.25	227.79	0.10
US77	37301	5,197,001	2,550,192	1,167,359	1.42	0.90	36.20	16.0	18.9	19,475	20,164	304.30	325.84	0.15
US77	10202	148,822	26,749	1,167,359	1.52	1.50	1.72	20.7	20.8	13,975	13,995	218.36	218.98	0.10
US77	10203	148,822	26,749	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.12
US77	10204	148,822	26,749	2,483,647	3.34	3.28	1.77	22.7	22.8	12,386	12,406	193.53	194.15	0.09
US77	32701	148,822	26,749	2,483,647	4.78	4.66	2.51	28.9	29.1	6,800	6,820	106.25	106.87	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	2,077,154	1,057,482	4,790,983	2.67	2.42	9.35	26.5	27.3	26,000	26,275	406.25	414.86	0.19
I10	73901	2,077,154	1,057,482	4,790,983	2.55	2.32	8.97	28.9	29.7	25,000	25,275	390.63	399.23	0.18
I10	50803	2,077,154	1,057,482	4,790,983	2.56	2.33	9.01	26.2	26.9	27,500	27,775	429.69	438.30	0.20
I10	50802	2,077,154	1,057,482	4,790,983	2.56	2.33	8.99	23.8	24.4	30,333	30,608	473.95	482.56	0.22
US90	2807	79,901	60,637	1,436,461	2.65	2.61	1.31	8.1	8.1	25,333	25,344	395.83	396.16	0.18
US90	2806	79,901	60,637	1,436,461	6.02	5.84	2.92	12.7	12.8	7,122	7,133	111.28	111.61	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	78,044	26,749	1,673,506	20.00	18.45	7.74	10.9	11.2	2,900	2,910	90.63	91.27	0.07
FM2925	63003	78,044	26,749	1,673,506	20.00	12.60	36.99	7.7	9.3	587	597	18.34	18.99	0.01
FM508	34204	78,044	26,749	1,673,506	20.00	16.86	15.69	6.6	7.0	2,160	2,170	67.50	68.15	0.05

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S100	33102	70,778	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32
S48	22005	70,778	.	3,096,382	16.69	16.15	3.22	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	148,822	26,749	5,006,733	9.84	9.59	2.56	29.6	29.8	6,500	6,520	101.56	102.18	0.05
US77	32703	148,822	26,749	5,006,733	10.24	9.97	2.66	30.3	30.5	6,100	6,120	95.31	95.93	0.04
US77	32704	148,822	26,749	5,006,733	10.38	10.10	2.70	30.4	30.6	6,000	6,020	93.75	94.37	0.04
US77	32705	148,822	26,749	5,006,733	9.39	9.16	2.45	30.1	30.3	6,700	6,720	104.69	105.30	0.05
US77	32710	148,822	26,749	1,951,437	3.48	3.40	2.33	25.6	25.8	8,287	8,307	129.48	130.10	0.06
US77	32708	148,822	26,749	1,951,437	13.66	12.49	8.57	5.4	5.6	10,000	10,020	104.17	104.58	0.05
US77	3907	148,822	26,749	1,951,437	1.14	1.13	0.78	23.2	23.3	27,920	27,940	436.25	436.87	0.20
US77	3908	70,778	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,778	.	1,951,437	1.99	1.98	0.65	11.8	11.8	31,400	31,409	490.63	490.92	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	500	86,294	68,541	88,719	175,013	939,635	102,222	111,745	930,112	146.30	53.84	31.56	168.58	1.00
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	500	81,213	81,213	40,118	121,331	484,265	25,184	42,313	467,135	75.40	13.26	11.95	76.71	0.51
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	500	2,849	2,849	1,407	4,256	16,145	840	1,411	15,574	2.51	0.44	0.40	2.56	0.02
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	500	124,081	114,953	61,294	185,375	492,545	25,614	43,037	475,122	76.69	13.49	12.16	78.03	0.52
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	500	69,532	33,567	34,348	103,880	266,495	13,859	23,285	257,068	41.49	7.30	6.58	42.22	0.28
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	500	33,785	33,785	16,689	50,474	110,989	5,772	9,698	107,063	17.28	3.04	2.74	17.58	0.12
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	500	59,737	59,737	29,509	89,246	155,361	8,079	13,575	149,865	24.19	4.26	3.83	24.61	0.16
400	540	3,146	3,146	1,554	4,700	11,455	596	1,001	11,050	1.78	0.31	0.28	1.81	0.01
400	550	166,678	144,697	82,337	249,015	685,398	35,643	59,888	661,154	106.72	18.77	16.91	108.58	0.73
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
410	550	3,982	3,053	1,967	5,949	15,807	822	1,381	15,248	2.46	0.43	0.39	2.50	0.02
460	550	11,713	.	5,786	17,500	31,425	1,634	2,746	30,314	4.89	0.86	0.78	4.98	0.03
470	480	247	4	122	370	34	2	3	33	0.01	0.00	0.00	0.01	0.00
470	500	4,567	4,567	2,256	6,823	3,126	163	273	3,015	0.49	0.09	0.08	0.50	0.00
480	350	984	.	486	1,469	3,366	175	294	3,247	0.52	0.09	0.08	0.53	0.00
480	400	5	.	2	7	11	1	1	10	0.00	0.00	0.00	0.00	0.00
480	470	964	189	476	1,440	132	7	12	127	0.02	0.00	0.00	0.02	0.00
500	1	26,522	24,607	54,871	81,393	360,708	121,610	88,657	393,661	56.16	64.05	25.04	95.18	0.38
500	280	62,934	17,474	31,089	94,023	377,692	19,641	33,001	364,332	58.81	10.35	9.32	59.83	0.40
500	290	10,187	10,187	5,032	15,220	57,172	2,973	4,995	55,150	8.90	1.57	1.41	9.06	0.06
500	330	8,594	.	4,245	12,839	39,996	2,080	3,495	38,582	6.23	1.10	0.99	6.34	0.04
500	350	368,955	101,454	182,259	551,213	1,465,513	76,212	128,051	1,413,674	228.18	40.14	36.17	232.16	1.56
500	360	120,420	98,103	59,486	179,905	461,529	24,001	40,327	445,204	71.86	12.64	11.39	73.11	0.49
500	380	1,842	769	910	2,752	6,052	315	529	5,838	0.94	0.17	0.15	0.96	0.01
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 474 / Port O'Connor

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
550	400	85,923	82,851	42,445	128,368	352,838	18,349	30,830	340,358	54.94	9.66	8.71	55.89	0.37
550	410	2,525	2,525	1,247	3,772	10,023	521	876	9,668	1.56	0.27	0.25	1.59	0.01
550	450	16,274	3,268	8,039	24,313	46,780	2,433	4,087	45,125	7.28	1.28	1.15	7.41	0.05
550	470	4,223	3,858	2,086	6,310	9,250	481	808	8,922	1.44	0.25	0.23	1.47	0.01
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		4,265,590	2,221,266	3,763,958	8,029,547	29,424,463	4,773,535	4,372,865	29,825,132	4,581.41	2,514.30	1,235.08	5,860.63	31.23

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	500	143,824	114,235	147,864	291,688	1,044,039	133,102	164,331	1,012,810	162.56	70.11	46.41	186.25	1.66
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	500	135,355	135,355	66,863	202,218	538,072	32,791	62,225	508,638	83.78	17.27	17.58	83.47	0.86
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	500	4,748	4,748	2,346	7,094	17,939	1,093	2,075	16,958	2.79	0.58	0.59	2.78	0.03
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	500	206,801	191,589	102,157	308,958	547,272	33,352	63,289	517,335	85.21	17.57	17.88	84.90	0.87
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	500	115,887	55,945	57,247	173,134	296,105	18,045	34,243	279,907	46.10	9.50	9.67	45.94	0.47
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	500	56,308	56,308	27,816	84,124	123,321	7,515	14,261	116,575	19.20	3.96	4.03	19.13	0.20
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	500	99,562	99,562	49,182	148,744	172,623	10,520	19,963	163,180	26.88	5.54	5.64	26.78	0.27
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
460	550	19,522	.	9,644	29,166	34,917	2,128	4,038	33,007	5.44	1.12	1.14	5.42	0.06
470	480	412	7	204	616	38	2	4	36	0.01	0.00	0.00	0.01	0.00
470	500	7,612	7,612	3,760	11,372	3,473	212	402	3,283	0.54	0.11	0.11	0.54	0.01
480	350	1,639	.	810	2,449	3,740	228	432	3,535	0.58	0.12	0.12	0.58	0.01
480	400	8	.	4	12	12	1	1	11	0.00	0.00	0.00	0.00	0.00
480	470	1,606	315	794	2,400	147	9	17	139	0.02	0.00	0.00	0.02	0.00
500	1	44,204	41,011	91,451	135,655	400,787	158,347	130,379	428,755	62.40	83.40	36.82	108.98	0.64
500	280	104,890	29,123	51,815	156,705	419,657	25,575	48,531	396,701	65.34	13.47	13.71	65.10	0.67
500	290	16,979	16,979	8,387	25,366	63,525	3,871	7,346	60,050	9.89	2.04	2.07	9.85	0.10
500	330	14,323	.	7,076	21,399	44,440	2,708	5,139	42,009	6.92	1.43	1.45	6.89	0.07
500	350	614,924	169,091	303,765	918,689	1,628,348	99,235	188,311	1,539,272	253.53	52.27	53.19	252.62	2.59
500	360	200,699	163,505	99,143	299,842	512,810	31,252	59,304	484,758	79.84	16.46	16.75	79.56	0.82
500	380	3,070	1,282	1,517	4,587	6,724	410	778	6,356	1.05	0.22	0.22	1.04	0.01
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 474 / Port O'Connor

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
550	450	27,123	5,447	13,399	40,522	51,978	3,168	6,011	49,134	8.09	1.67	1.70	8.06	0.08
550	470	7,039	6,430	3,477	10,516	10,277	626	1,189	9,715	1.60	0.33	0.34	1.59	0.02
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		7,109,316	3,702,109	6,273,263	13,382,579	32,693,848	6,215,540	6,430,684	32,478,704	5,090.45	3,273.83	1,816.30	6,547.99	52.05

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	319,326	290,432	2,342,909	20.00	10.60	47.01	3.4	4.5	3,600	3,642	112.50	115.15	0.08
FM1764	160701	58,625	36,043	4,149,703	14.52	14.26	1.81	4.5	4.5	24,000	24,008	375.00	375.24	0.27
FM1764	160702	39,084	24,029	4,149,703	20.00	19.64	1.81	3.0	3.0	24,000	24,005	750.00	750.32	0.54
FM2918	293901	6,507	5,578	4,334,935	20.00	18.79	6.04	7.0	7.2	500	501	15.63	15.68	0.01
FM360	52706	262,949	233,127	5,014,448	20.00	12.06	39.70	9.2	11.3	1,500	1,535	46.88	49.05	0.04
FM523	100301	31,694	28,825	1,867,826	20.00	19.01	4.93	3.2	3.2	6,625	6,629	207.03	207.29	0.15
I45	11004	54,759	33,666	12,973,790	6.95	6.93	0.26	11.4	11.4	62,000	62,007	968.75	968.98	0.44
I45	11005	48,205	29,637	5,528,218	2.18	2.18	0.17	10.0	10.0	95,667	95,673	1494.8	1495.0	0.68
I45	67508	83,553	51,369	15,422,523	12.91	12.82	0.62	17.4	17.4	26,000	26,011	406.25	406.60	0.18
S134	37602	346,666	152,683	7,009,427	20.00	17.95	10.24	6.5	6.8	15,900	15,946	496.88	499.75	0.36
S146	38905	328,983	144,872	2,496,949	9.75	8.74	10.36	6.2	6.4	15,700	15,744	245.31	246.68	0.18
S146	38906	400,948	176,659	2,496,949	10.65	9.23	13.33	7.5	7.9	11,786	11,839	184.16	185.82	0.13
S146	38912	256,256	112,750	2,496,949	9.98	9.14	8.44	4.8	5.0	19,700	19,734	307.81	308.87	0.22
S197	38911	70,513	43,352	3,294,557	20.00	18.59	7.06	5.4	5.6	5,833	5,842	182.28	182.87	0.13
S288	59804	121,165	110,197	2,655,275	6.85	6.67	2.65	12.2	12.3	12,600	12,616	196.88	197.38	0.14
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
S332	58601	80,585	73,292	2,057,202	11.46	11.03	3.77	8.1	8.2	8,767	8,778	273.97	274.64	0.20
S341	62801	78,167	48,058	4,149,703	20.00	18.40	7.99	6.0	6.2	5,100	5,110	79.69	80.01	0.06
S348	68601	145,912	89,708	7,909,001	19.32	18.74	3.01	11.2	11.3	14,500	14,519	453.13	454.33	0.32
S35	17801	741,040	373,931	1,764,574	5.81	4.77	18.01	5.3	5.8	21,500	21,598	335.94	339.01	0.24
S35	17802	741,040	373,931	2,342,909	10.26	7.94	22.60	6.3	6.9	13,773	13,871	215.20	218.27	0.16
S35	17803	741,040	373,931	2,342,909	13.82	9.92	28.22	7.2	8.2	8,900	8,998	139.06	142.13	0.10
S35	17901	741,040	373,931	2,342,909	10.29	7.96	22.64	10.4	11.4	8,300	8,398	129.69	132.76	0.09
S35	17902	803,923	436,814	2,342,909	10.46	7.91	24.40	10.3	11.4	8,222	8,329	256.94	263.60	0.19
S35	17903	803,923	436,814	2,342,909	13.90	9.73	30.02	10.5	12.0	6,067	6,174	189.59	196.26	0.14
S36	18705	325,833	296,010	2,535,398	13.80	11.90	13.76	15.1	15.9	4,600	4,643	143.75	146.45	0.10
S36	18801	325,833	296,010	2,535,398	11.10	9.84	11.37	8.7	9.1	9,900	9,943	309.38	312.08	0.22
S36	18802	325,833	296,010	2,535,398	19.72	16.06	18.56	10.2	11.0	4,750	4,793	148.44	151.14	0.11
S36	18803	325,833	296,010	3,516,385	20.00	16.89	15.55	10.2	10.8	6,013	6,056	187.91	190.61	0.14
S36	18804	325,833	296,010	3,516,385	16.53	14.58	11.78	7.4	7.8	11,367	11,410	355.22	357.92	0.26
S36	18805	325,833	296,010	3,516,385	20.00	16.23	18.84	8.1	8.7	6,000	6,043	187.50	190.20	0.14
S36	18806	325,833	296,010	3,516,385	20.00	16.47	17.67	7.7	8.3	6,820	6,863	213.13	215.83	0.15
S8	325603	536,282	229,225	4,149,703	15.04	12.80	14.88	4.0	4.3	26,067	26,138	271.53	273.01	0.20
S8	325604	536,282	229,225	4,149,703	15.68	13.27	15.42	4.0	4.3	25,000	25,071	260.42	261.90	0.19
S87	37606	392,301	241,191	6,504,983	20.00	15.50	22.48	9.2	10.1	5,000	5,052	156.25	159.50	0.11
US59	17707	3,086,167	1,484,871	4,149,703	2.37	2.05	13.70	6.2	6.6	106,000	106,409	1656.3	1669.0	0.76
US75	5104	392,301	241,191	6,011,120	10.14	9.57	5.62	6.2	6.4	36,000	36,052	562.50	564.13	0.26
US90	2801	47,941	36,382	3,715,330	12.14	11.97	1.39	7.1	7.1	16,375	16,381	255.86	256.06	0.12
US90	2802	47,941	36,382	3,715,330	20.00	19.51	2.45	7.3	7.4	8,900	8,906	139.06	139.26	0.06
US90A	2710	18,276	11,236	3,715,330	13.96	13.87	0.61	3.8	3.8	26,480	26,482	413.75	413.83	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	16,274	3,268	1,252,801	20.00	18.05	9.73	7.9	8.2	660	662	20.63	20.76	0.01
FM2717	271401	4,983	3,907	2,094,784	20.00	18.33	8.34	7.9	8.1	240	241	7.50	7.54	0.01
FM2760	271403	6,007	4,711	2,568,860	20.00	19.36	3.20	9.5	9.6	660	661	20.63	20.67	0.01
S172	42001	11,713	.	1,642,425	17.99	17.79	1.14	23.0	23.1	1,500	1,502	46.88	46.97	0.03
S316	58001	10,990	8,618	1,642,425	20.00	18.10	9.52	4.8	5.0	740	741	23.13	23.22	0.02
S35	17904	803,923	436,814	2,276,676	7.94	6.34	20.15	10.5	11.4	10,317	10,424	161.20	164.54	0.12
S35	17906	803,923	436,814	2,276,676	11.85	8.61	27.34	11.8	13.3	6,150	6,257	96.09	99.43	0.07
S35	17907	803,923	436,814	2,276,676	15.25	10.27	32.63	16.4	19.0	3,430	3,537	107.19	113.85	0.08
S35	17908	803,923	436,814	2,276,676	20.00	7.63	61.87	6.4	10.0	2,638	2,745	82.44	89.10	0.06
S35	17909	815,637	436,814	2,276,676	18.12	11.44	36.87	15.3	18.2	3,100	3,208	96.88	103.64	0.07
S35	17910	809,702	441,574	1,795,577	8.02	6.05	24.54	10.0	11.1	8,500	8,607	132.81	136.17	0.10
S35	18001	807,507	441,381	1,795,577	6.49	5.14	20.81	13.1	14.3	7,964	8,071	248.88	255.57	0.18
S60	24101	16,274	3,268	1,952,424	16.05	15.86	1.19	10.8	10.8	4,260	4,262	133.13	133.26	0.10
S60	24102	16,274	3,268	2,276,676	15.73	15.57	1.00	8.7	8.7	6,325	6,327	98.83	98.90	0.07
S60	24103	16,274	3,268	2,276,676	20.00	19.48	2.58	3.6	3.6	5,800	5,802	90.63	90.69	0.06
S60	24104	16,274	3,268	2,276,676	20.00	19.35	3.24	6.9	7.0	2,400	2,402	75.00	75.13	0.05
US59	8905	3,365,390	1,721,265	2,112,832	2.78	1.99	28.47	21.1	23.6	13,600	14,046	212.50	226.45	0.10
US59	8904	3,377,103	1,721,265	2,112,832	2.78	1.99	28.57	21.4	24.0	13,400	13,848	209.38	223.37	0.10
US59	8903	3,377,103	1,721,265	2,112,832	2.39	1.78	25.55	21.8	24.0	15,350	15,798	239.84	253.84	0.12
US59	8901	3,377,103	1,721,265	5,841,189	11.03	7.01	36.46	13.6	16.1	14,767	15,215	230.73	244.73	0.11
US59	8804	3,124,363	1,533,288	5,841,189	11.42	7.37	35.46	15.0	17.7	12,867	13,281	201.05	214.00	0.10
US87	14306	5,435	4,051	5,841,189	20.00	19.86	0.70	9.2	9.2	2,850	2,851	89.06	89.11	0.04
US87	14307	5,435	4,051	5,841,189	20.00	19.77	1.17	9.2	9.2	1,700	1,701	53.13	53.17	0.02
US87	14308	5,435	4,051	8,872,292	20.00	19.93	0.33	9.2	9.2	6,020	6,021	188.13	188.17	0.09
US87	14309	5,435	4,051	8,872,292	20.00	19.94	0.32	10.1	10.2	5,667	5,668	177.09	177.14	0.08
US87	14310	5,435	4,051	5,009,267	19.39	19.35	0.19	11.8	11.8	8,280	8,281	258.75	258.80	0.12
US87	14401	5,435	4,051	5,009,267	20.00	19.91	0.43	6.7	6.8	6,363	6,364	198.84	198.89	0.09
US87	14403	5,435	4,051	2,276,676	20.00	19.90	0.51	7.5	7.5	4,800	4,801	150.00	150.05	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	15,606	8,879	3,436,383	20.00	19.64	1.78	5.8	5.8	5,100	5,102	79.69	79.75	0.06
FM2725	275601	18,028	10,257	3,074,361	20.00	19.11	4.44	6.7	6.8	2,000	2,002	62.50	62.65	0.04
S35	18003	47,179	15,963	1,791,737	15.08	14.56	3.45	14.0	14.2	3,200	3,206	100.00	100.39	0.07
S35	18004	47,179	15,963	1,791,737	6.71	6.61	1.56	9.5	9.6	10,592	10,598	331.00	331.39	0.24
S35	18005	47,179	15,963	1,791,737	7.71	7.57	1.79	9.9	10.0	8,867	8,873	277.09	277.48	0.20

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S358	61701	3,028,907	1,514,066	2,810,157	5.12	3.43	32.96	4.3	5.1	48,638	49,040	506.65	515.01	0.37
S361	18010	33,634	19,137	1,470,362	9.81	9.62	1.98	10.3	10.4	5,500	5,504	171.88	172.15	0.12
S44	10201	3,028,907	1,514,066	1,316,451	8.73	3.11	64.38	7.4	12.0	7,700	8,102	120.31	132.87	0.09
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
US77	37102	1,519,973	815,774	2,129,917	4.02	3.19	20.51	19.9	21.5	10,043	10,245	156.92	163.22	0.07
US77	37103	1,519,973	815,774	2,129,917	20.00	4.94	75.29	18.8	33.7	900	1,102	14.06	20.36	0.01
US77	37104	3,124,363	1,533,288	2,483,647	6.83	3.85	43.58	18.8	23.2	7,300	7,714	114.06	127.01	0.06
US77	37203	3,118,200	1,530,115	2,483,647	15.17	5.59	63.15	7.8	12.4	7,933	8,347	123.95	136.88	0.06
US77	37201	3,118,200	1,530,115	2,483,647	4.38	2.93	33.10	16.2	18.8	13,200	13,614	206.25	219.17	0.10
US77	37301	3,118,200	1,530,115	1,167,359	1.42	1.06	25.40	16.0	17.7	19,475	19,889	304.30	317.22	0.14
US77	10202	89,293	16,049	1,167,359	1.52	1.51	1.04	20.7	20.8	13,975	13,987	218.36	218.73	0.10
US77	10203	89,293	16,049	1,167,359	1.33	1.32	0.91	20.4	20.4	16,300	16,312	254.69	255.06	0.12
US77	10204	89,293	16,049	2,483,647	3.34	3.30	1.07	22.7	22.8	12,386	12,398	193.53	193.90	0.09
US77	32701	89,293	16,049	2,483,647	4.78	4.70	1.52	28.9	29.0	6,800	6,812	106.25	106.62	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	1,246,292	634,489	4,790,983	2.67	2.52	5.83	26.5	27.0	26,000	26,165	406.25	411.42	0.19
I10	73901	1,246,292	634,489	4,790,983	2.55	2.41	5.58	28.9	29.4	25,000	25,165	390.63	395.79	0.18
I10	50803	1,246,292	634,489	4,790,983	2.56	2.42	5.61	26.2	26.6	27,500	27,665	429.69	434.85	0.20
I10	50802	1,246,292	634,489	4,790,983	2.56	2.41	5.60	23.8	24.2	30,333	30,498	473.95	479.12	0.22
US90	2807	47,941	36,382	1,436,461	2.65	2.63	0.79	8.1	8.1	25,333	25,339	395.83	396.03	0.18
US90	2806	47,941	36,382	1,436,461	6.02	5.91	1.77	12.7	12.7	7,122	7,128	111.28	111.48	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	46,827	16,049	1,673,506	20.00	19.04	4.80	10.9	11.1	2,900	2,906	90.63	91.01	0.07

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 474 / Port O'Connor
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

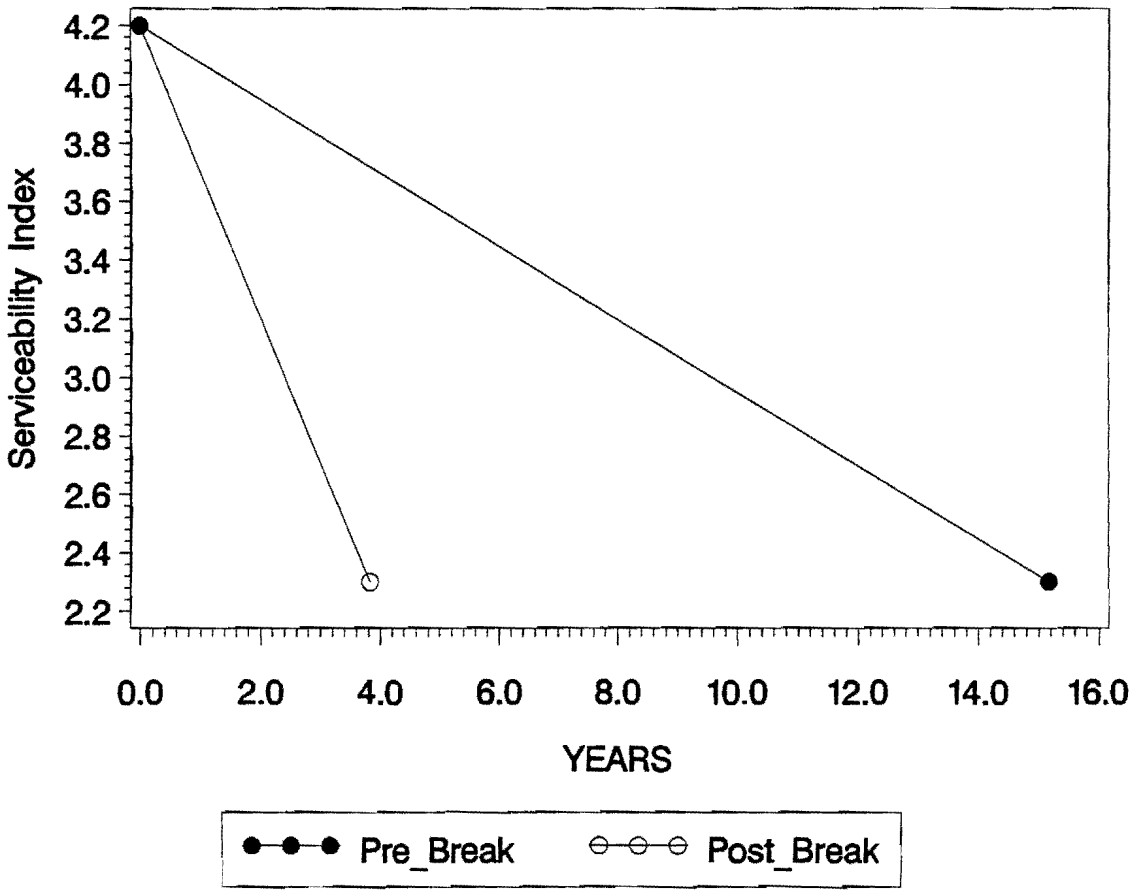
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2925	63003	46,827	16,049	1,673,506	20.00	14.79	26.05	7.7	8.7	587	593	18.34	18.73	0.01
FM508	34204	46,827	16,049	1,673,506	20.00	17.99	10.05	6.6	6.9	2,160	2,166	67.50	67.89	0.05
S100	33102	42,467	.	1,673,506	4.04	4.00	0.91	10.8	10.8	14,500	14,506	453.13	453.48	0.32
S48	22005	42,467	.	3,096,382	16.69	16.36	1.95	4.7	4.7	15,657	15,663	244.64	244.82	0.17
US77	32702	89,293	16,049	5,006,733	9.84	9.69	1.55	29.6	29.7	6,500	6,512	101.56	101.93	0.05
US77	32703	89,293	16,049	5,006,733	10.24	10.07	1.62	30.3	30.4	6,100	6,112	95.31	95.68	0.04
US77	32704	89,293	16,049	5,006,733	10.38	10.21	1.64	30.4	30.5	6,000	6,012	93.75	94.12	0.04
US77	32705	89,293	16,049	5,006,733	9.39	9.25	1.48	30.1	30.2	6,700	6,712	104.69	105.06	0.05
US77	32710	89,293	16,049	1,951,437	3.48	3.43	1.41	25.6	25.7	8,287	8,299	129.48	129.85	0.06
US77	32708	89,293	16,049	1,951,437	13.66	12.93	5.32	5.4	5.5	10,000	10,012	104.17	104.41	0.05
US77	3907	89,293	16,049	1,951,437	1.14	1.13	0.47	23.2	23.2	27,920	27,932	436.25	436.62	0.20
US77	3908	42,467	.	1,951,437	2.82	2.80	0.55	11.8	11.8	22,200	22,206	346.88	347.05	0.16
US77	3909	42,467	.	1,951,437	1.99	1.98	0.39	11.8	11.8	31,400	31,406	490.63	490.80	0.22

APPENDIX J

Aransas National Wildlife Refuge Break Range (500-504)

PAVEMENT LIFETIME

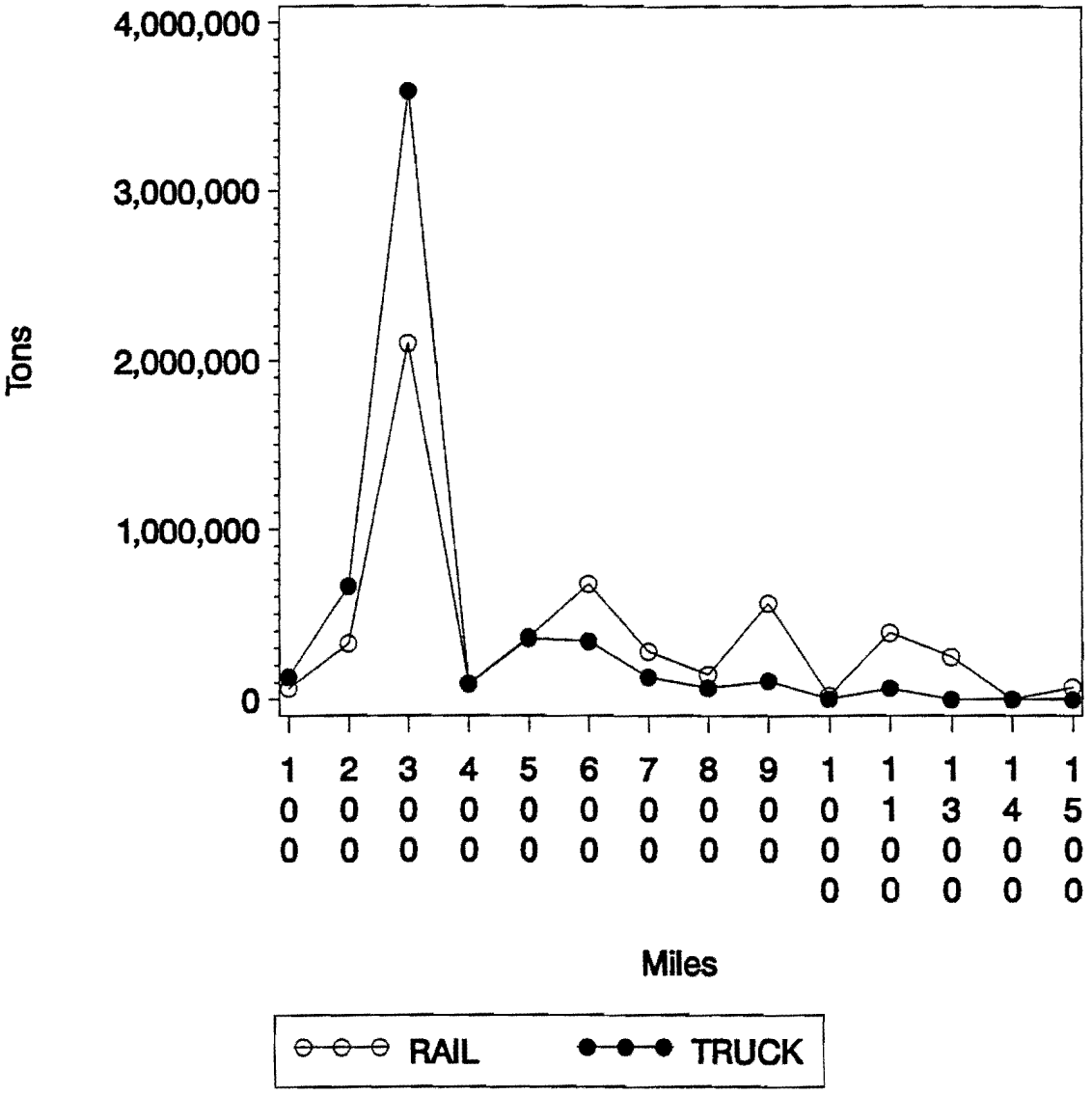
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 500 – 504 / Aransas NWR
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

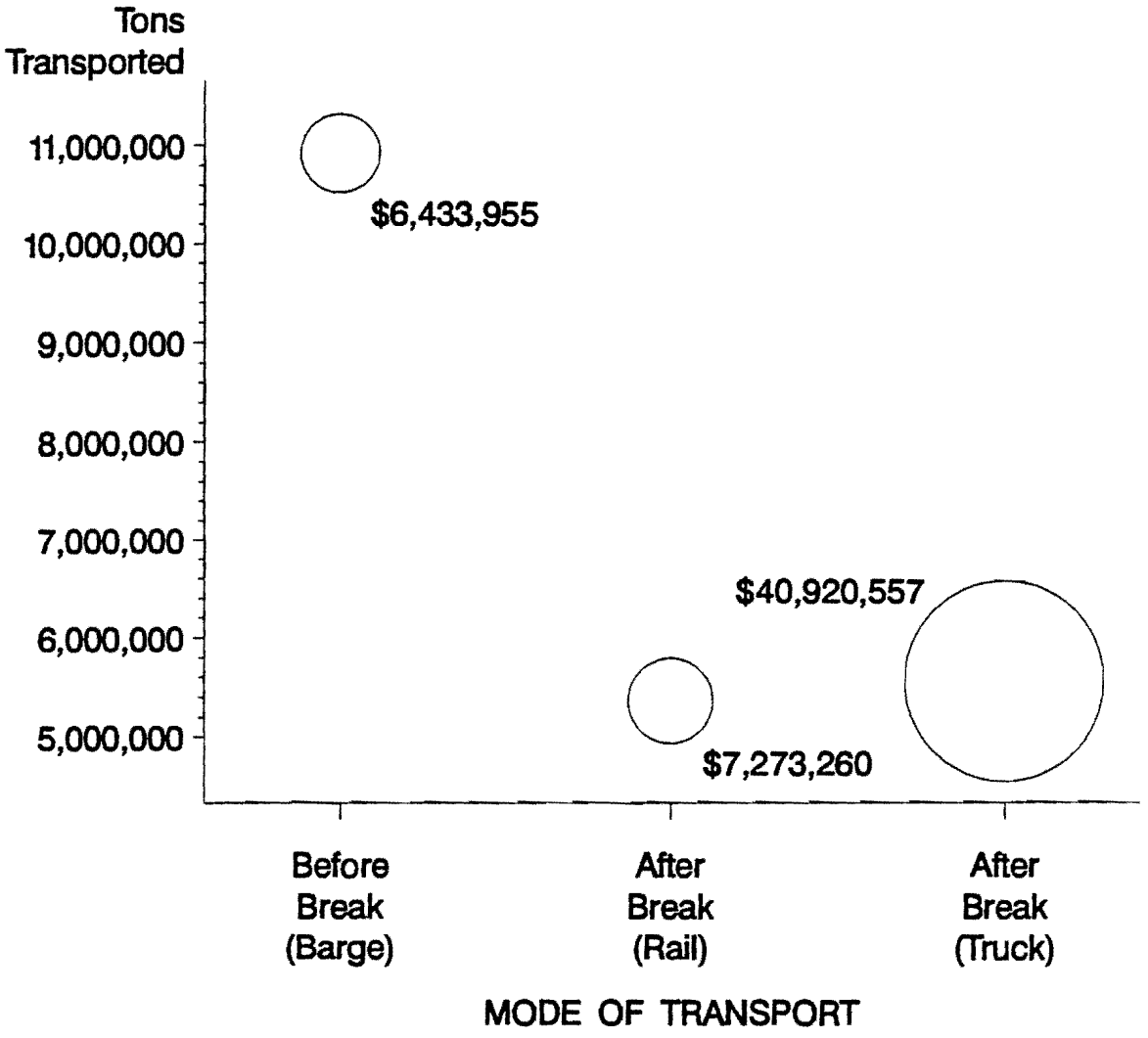
AS A FUNCTION OF DISTANCE

BREAK POINT 500 – 504 / Aransas NWR



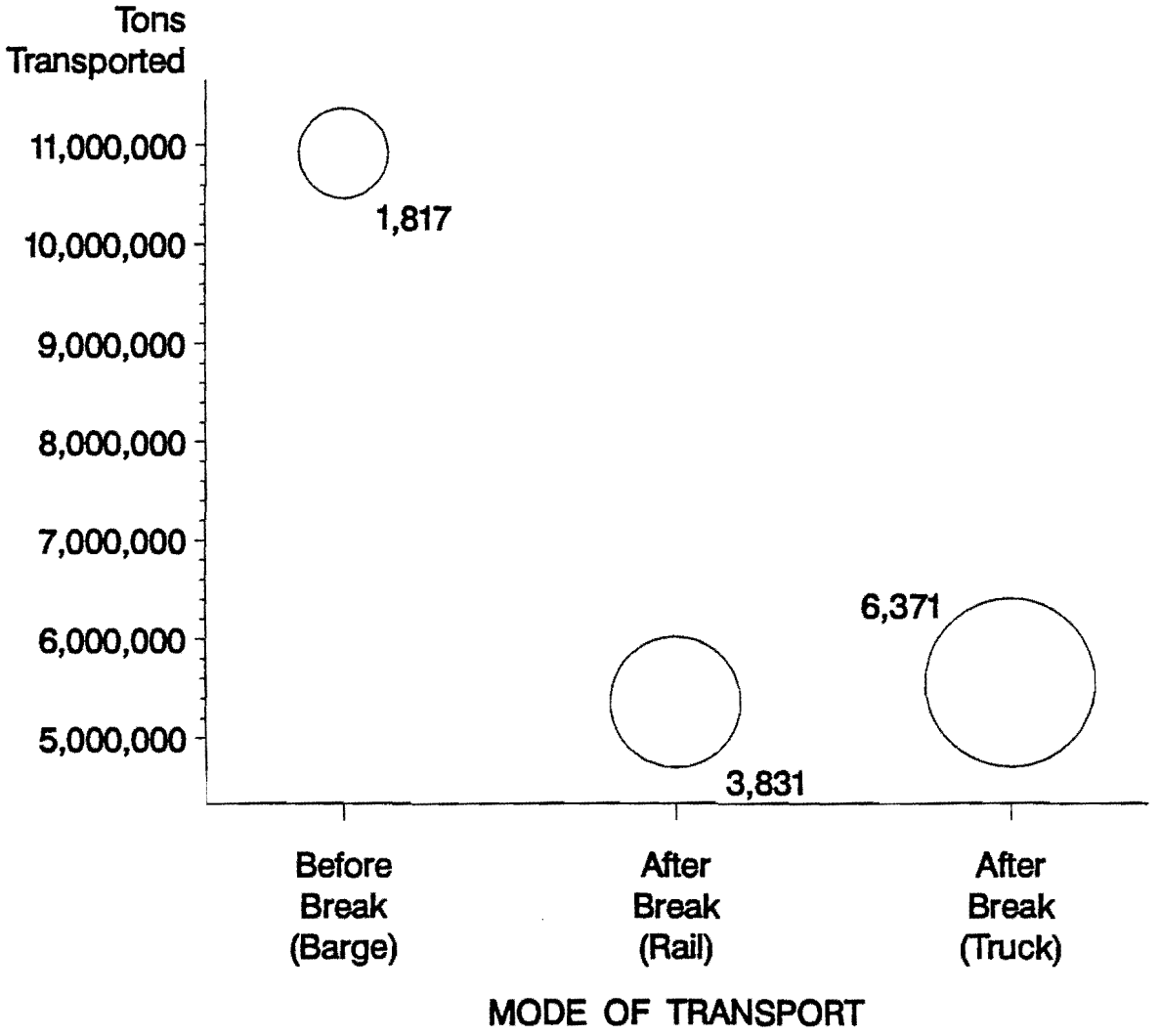
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 500–504 / Aransas NWR



EMISSIONS (Tons)

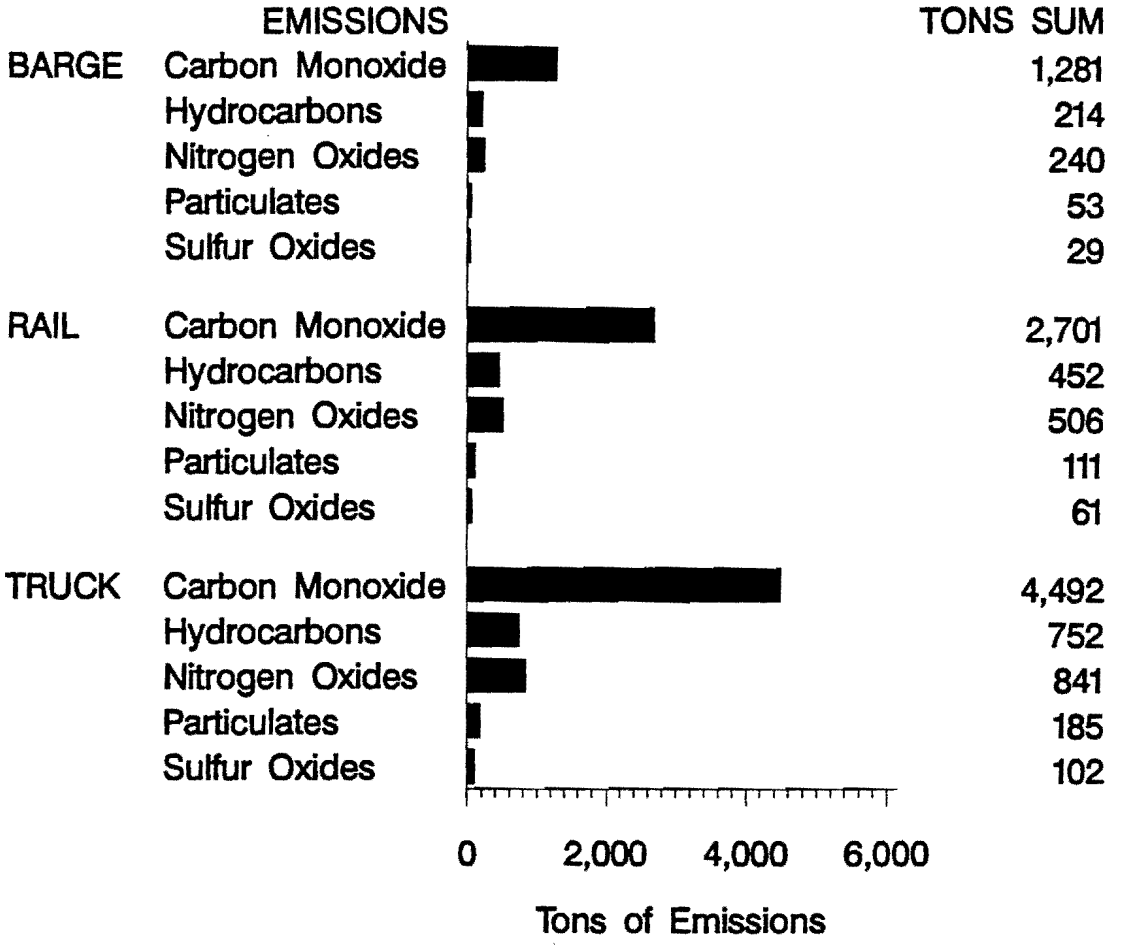
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 500–504 / Aransas NWR



EMISSIONS (Tons)

LOW END OF TON-MILE EFFICIENCY

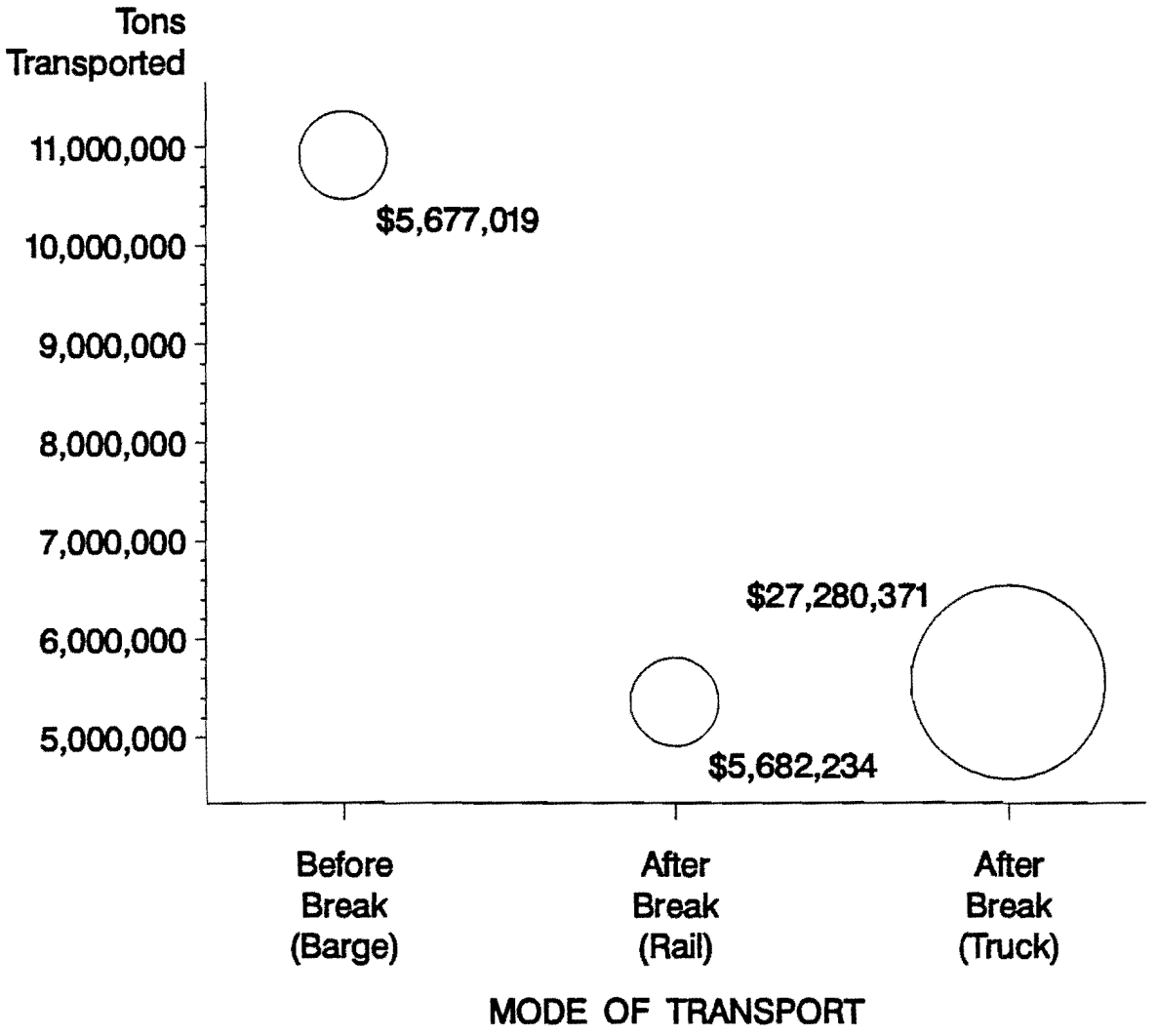
BREAK POINT 500-504 / Aransas NWR



Note: Barge emissions are pre-break
Rail & Truck emissions are post-break

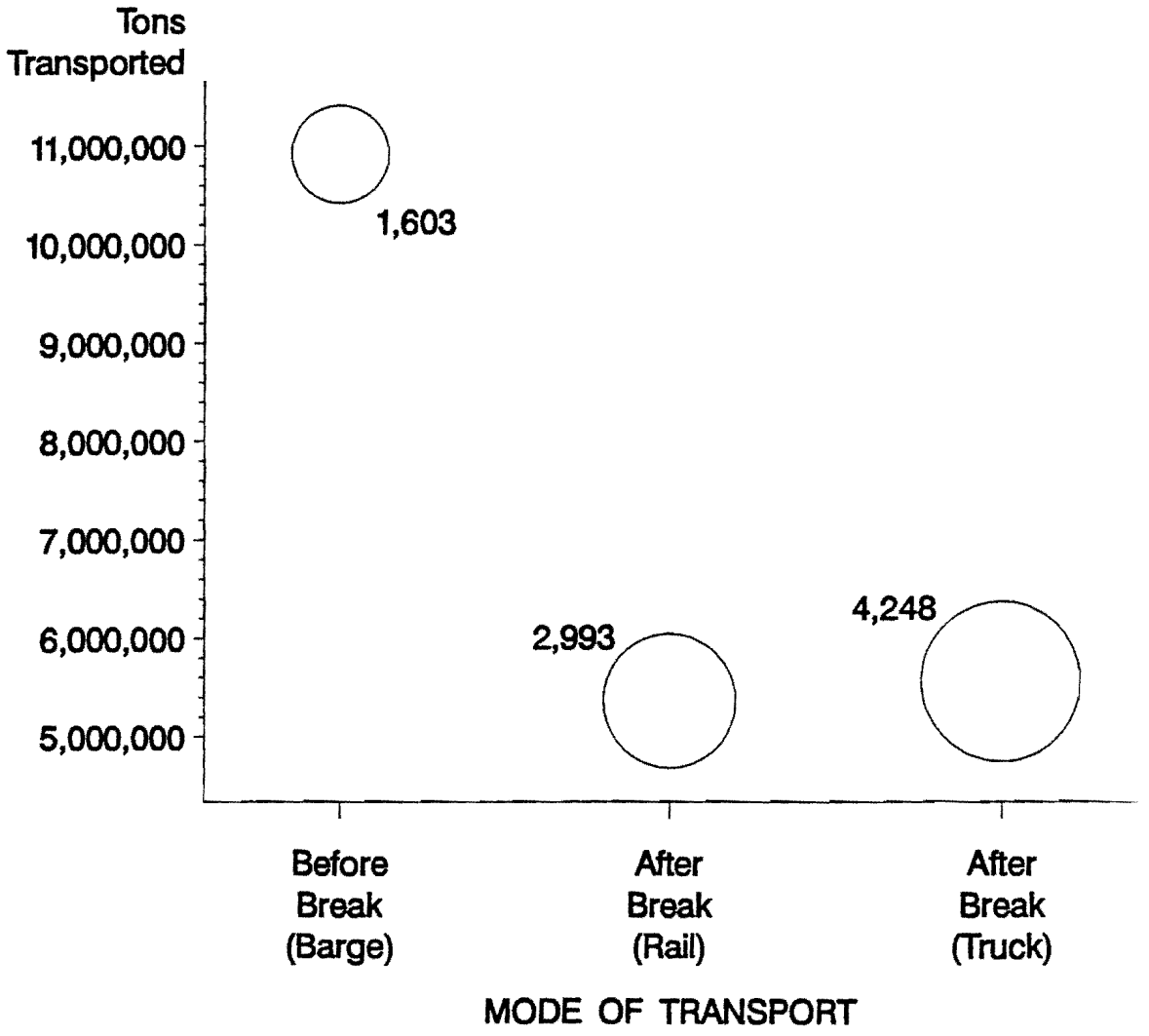
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 500–504 / Aransas NWR



EMISSIONS (Tons)

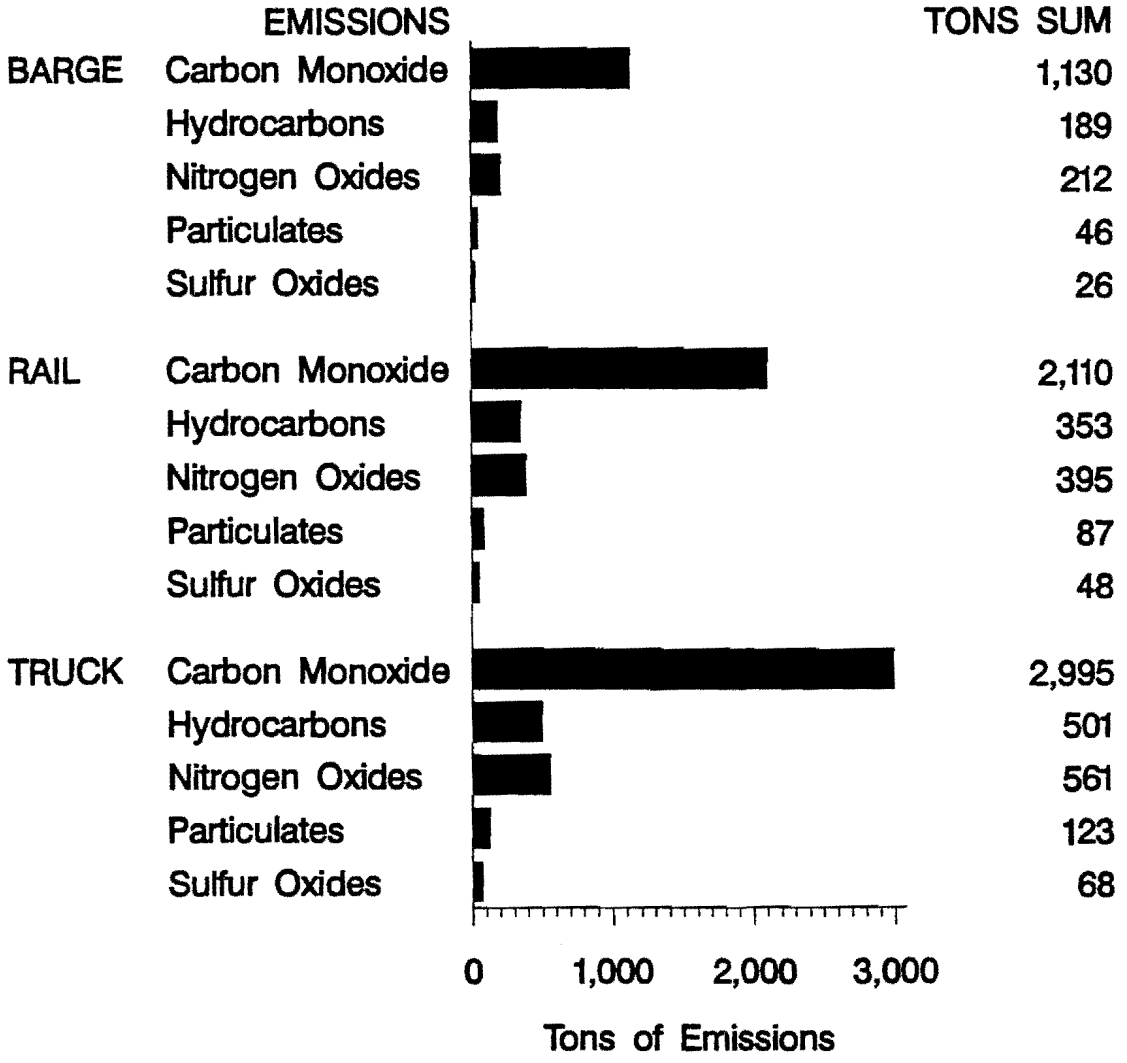
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 500–504 / Aransas NWR



EMISSIONS (Tons)

HIGH END OF TON – MILE EFFICIENCY

BREAK POINT 500 – 504 / Aransas NWR



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 500-504 / Aransas NWR

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	540	10,271	5,289	17,909	28,180	136,918	27,074	23,049	140,943	21.32	14.26	6.51	29.07	0.15
1	550	231,416	73,213	393,697	625,113	2,895,667	740,134	580,540	3,055,261	450.86	389.84	163.97	676.73	3.07
1	560	0	.	500	500	0	1,679	933	746	0.00	0.88	0.26	0.62	0.00
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
280	550	93,219	13,942	95,311	188,530	689,281	74,192	81,531	681,942	107.32	39.08	23.03	123.37	0.73
290	530	2,949	.	1,457	4,406	19,538	1,016	1,707	18,847	3.04	0.54	0.48	3.10	0.02
290	550	53,675	3,958	54,879	108,554	384,818	41,421	45,518	380,721	59.92	21.82	12.86	68.88	0.41
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	530	29,898	.	14,769	44,667	147,328	7,662	12,873	142,117	22.94	4.04	3.64	23.34	0.16
350	540	16,987	16,987	8,392	25,379	85,105	4,426	7,436	82,094	13.25	2.33	2.10	13.48	0.09
350	550	476,729	121,316	235,498	712,227	2,610,211	135,741	228,071	2,517,881	406.41	71.50	64.42	413.49	2.77
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	550	46,541	25,439	22,990	69,531	248,451	12,920	21,709	239,662	38.68	6.81	6.13	39.36	0.26
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
380	550	28,295	28,295	13,977	42,272	135,556	7,049	11,844	130,761	21.11	3.71	3.35	21.47	0.14
400	540	5,244	5,244	2,590	7,834	19,092	993	1,668	18,417	2.97	0.52	0.47	3.02	0.02
400	550	277,797	241,162	137,228	415,025	1,142,330	59,406	99,813	1,101,923	177.86	31.29	28.19	180.96	1.21
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
410	550	6,637	5,089	3,278	9,915	26,344	1,370	2,302	25,413	4.10	0.72	0.65	4.17	0.03
460	550	19,522	.	9,644	29,166	52,376	2,724	4,576	50,523	8.15	1.43	1.29	8.30	0.06
500	540	38,905	.	19,218	58,123	44,556	2,317	3,893	42,980	6.94	1.22	1.10	7.06	0.05
500	650	51,626	.	25,503	77,129	219,067	11,392	19,141	211,318	34.11	6.00	5.41	34.70	0.23
500	670	46,785	.	23,111	69,896	221,623	11,525	19,365	213,783	34.51	6.07	5.47	35.11	0.24
540	350	23,554	4,374	11,635	35,189	119,005	6,189	10,398	114,795	18.53	3.26	2.94	18.85	0.13
550	1	785,527	479,923	2,243,198	3,028,725	12,477,470	4,721,552	3,352,834	13,846,188	1,942.75	2,486.92	946.98	3,482.69	13.24
550	280	390,253	185,422	399,014	789,267	2,885,010	310,534	341,250	2,854,295	449.20	163.56	96.38	516.38	3.06
550	290	83,885	12,600	85,769	169,654	601,675	64,762	71,168	595,269	93.68	34.11	20.10	107.69	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	11,896,528	618,665	1,039,476	11,475,717	1,852.30	325.86	293.59	1,884.57	12.63
550	360	228,916	153,468	113,082	341,998	1,222,747	63,588	106,839	1,179,495	190.38	33.49	30.18	193.70	1.30
550	380	22,264	5,063	10,998	33,262	106,663	5,547	9,320	102,890	16.61	2.92	2.63	16.90	0.11
550	400	143,205	138,085	70,742	213,947	588,064	30,582	51,383	567,263	91.56	16.11	14.51	93.16	0.62
550	410	4,208	4,208	2,079	6,287	16,705	869	1,460	16,114	2.60	0.46	0.41	2.65	0.02
550	450	27,123	5,447	13,399	40,522	77,966	4,055	6,812	75,209	12.14	2.14	1.92	12.35	0.08
550	470	7,039	6,430	3,477	10,516	15,416	802	1,347	14,871	2.40	0.42	0.38	2.44	0.02
550	500	85,773	27,565	42,370	128,143	129,147	6,716	11,284	124,579	20.11	3.54	3.19	20.46	0.14
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
		5,559,551	2,643,009	5,361,267	10,920,818	40,920,557	7,273,260	6,433,955	41,759,861	6,371.36	3,830.95	1,817.22	8,385.09	43.43

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 500-504 / Aransas NWR

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
460	550	19,522	.	9,644	29,166	34,917	2,128	4,038	33,007	5.44	1.12	1.14	5.42	0.06
500	540	38,905	.	19,218	58,123	29,704	1,810	3,435	28,079	4.62	0.95	0.97	4.61	0.05
500	650	51,626	.	25,503	77,129	146,045	8,900	16,889	138,055	22.74	4.69	4.77	22.66	0.23
500	670	46,785	.	23,111	69,896	147,748	9,004	17,086	139,666	23.00	4.74	4.83	22.92	0.24
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
550	450	27,123	5,447	13,399	40,522	51,978	3,168	6,011	49,134	8.09	1.67	1.70	8.06	0.08
550	470	7,039	6,430	3,477	10,516	10,277	626	1,189	9,715	1.60	0.33	0.34	1.59	0.02
550	500	85,773	27,565	42,370	128,143	86,098	5,247	9,957	81,388	13.41	2.76	2.81	13.36	0.14
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		5,559,551	2,643,009	5,361,267	10,920,818	27,280,371	5,682,234	5,677,019	27,285,586	4,247.57	2,992.93	1,603.43	5,637.07	43.43

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM1495	58701	432,648	384,491	2,342,909	20.00	9.08	54.58	3.4	4.9	3,600	3,657	112.50	116.09	0.08
FM1764	160701	50,398	27,278	4,149,703	14.52	14.30	1.56	4.5	4.5	24,000	24,007	375.00	375.21	0.27
FM1764	160702	33,599	18,185	4,149,703	20.00	19.69	1.56	3.0	3.0	24,000	24,004	750.00	750.28	0.54
FM2918	293901	10,845	9,297	4,334,935	20.00	18.07	9.67	7.0	7.3	500	501	15.63	15.71	0.01
FM360	52706	438,249	388,544	5,014,448	20.00	9.54	52.32	9.2	12.6	1,500	1,558	46.88	50.51	0.04
FM523	100301	42,940	38,161	1,867,826	20.00	18.69	6.56	3.2	3.3	6,625	6,631	207.03	207.39	0.15
I45	11004	47,074	25,479	12,973,790	6.95	6.93	0.23	11.4	11.4	62,000	62,006	968.75	968.95	0.44
I45	11005	41,441	22,430	5,528,218	2.18	2.18	0.15	10.0	10.0	95,667	95,672	1494.8	1495.0	0.68
I45	67508	71,828	38,877	15,422,523	12.91	12.84	0.54	17.4	17.4	26,000	26,010	406.25	406.55	0.18
S134	37602	421,602	186,642	7,009,427	20.00	17.56	12.18	6.5	6.8	15,900	15,956	496.88	500.37	0.36
S146	38905	400,035	177,094	2,496,949	9.75	8.55	12.32	6.2	6.5	15,700	15,753	245.31	246.97	0.18
S146	38906	487,806	215,950	2,496,949	10.65	8.97	15.76	7.5	8.0	11,786	11,851	184.16	186.18	0.13
S146	38912	311,337	137,828	2,496,949	9.98	8.98	10.07	4.8	5.0	19,700	19,741	307.81	309.10	0.22
S197	38911	60,618	32,809	3,294,557	20.00	18.77	6.13	5.4	5.5	5,833	5,841	182.28	182.78	0.13
S288	59804	164,157	145,885	2,655,275	6.85	6.60	3.56	12.2	12.3	12,600	12,622	196.88	197.56	0.14
S330	50807	502,591	224,768	2,496,949	4.54	4.19	7.59	8.0	8.2	26,000	26,067	406.25	408.33	0.29
S332	58601	109,181	97,028	2,057,202	11.46	10.89	5.04	8.1	8.3	8,767	8,781	273.97	274.87	0.20
S341	62801	67,198	36,371	4,149,703	20.00	18.61	6.95	6.0	6.2	5,100	5,109	79.69	79.97	0.06
S348	68601	125,436	67,892	7,909,001	19.32	18.81	2.60	11.2	11.3	14,500	14,517	453.13	454.16	0.32
S35	17801	73,388	21,362	1,764,574	5.81	5.69	2.13	5.3	5.4	21,500	21,510	335.94	336.24	0.24
S35	17802	73,388	21,362	2,342,909	10.26	9.97	2.81	6.3	6.3	13,773	13,783	215.20	215.51	0.15
S35	17803	73,388	21,362	2,342,909	13.82	13.30	3.75	7.2	7.3	8,900	8,910	139.06	139.37	0.10
S35	17901	73,388	21,362	2,342,909	10.29	10.00	2.82	10.4	10.5	8,300	8,310	129.69	129.99	0.09
S35	17902	78,632	26,605	2,342,909	10.46	10.14	3.06	10.3	10.4	8,222	8,232	256.94	257.59	0.18
S35	17903	78,632	26,605	2,342,909	13.90	13.34	4.03	10.5	10.7	6,067	6,077	189.59	190.25	0.14
S36	18705	443,493	393,788	2,535,398	13.80	11.34	17.84	15.1	16.2	4,600	4,659	143.75	147.43	0.11
S36	18801	443,493	393,788	2,535,398	11.10	9.45	14.87	8.7	9.3	9,900	9,959	309.38	313.05	0.22
S36	18802	443,493	393,788	2,535,398	19.72	15.05	23.68	10.2	11.3	4,750	4,809	148.44	152.11	0.11
S36	18803	443,493	393,788	3,516,385	20.00	15.99	20.04	10.2	11.0	6,013	6,072	187.91	191.58	0.14
S36	18804	443,493	393,788	3,516,385	16.53	13.98	15.38	7.4	7.9	11,367	11,426	355.22	358.89	0.26
S36	18805	443,493	393,788	3,516,385	20.00	15.20	24.01	8.1	9.0	6,000	6,059	187.50	191.18	0.14
S36	18806	443,493	393,788	3,516,385	20.00	15.48	22.61	7.7	8.5	6,820	6,879	213.13	216.80	0.15
S8	325603	70,439	21,362	4,149,703	15.04	14.71	2.25	4.0	4.0	26,067	26,076	271.53	271.73	0.19
S8	325604	70,439	21,362	4,149,703	15.68	15.32	2.34	4.0	4.0	25,000	25,009	260.42	260.61	0.19
S87	37606	337,248	182,535	6,504,983	20.00	16.01	19.95	9.2	10.0	5,000	5,045	156.25	159.05	0.11
US59	17707	4,715,338	2,155,060	4,149,703	2.37	1.91	19.53	6.2	6.8	106,000	106,625	1656.3	1675.8	0.76
US75	5104	337,248	182,535	6,011,120	10.14	9.64	4.87	6.2	6.3	36,000	36,045	562.50	563.90	0.26
US90	2801	78,355	60,323	3,715,330	12.14	11.86	2.25	7.1	7.1	16,375	16,385	255.86	256.18	0.12
US90	2802	78,355	60,323	3,715,330	20.00	19.21	3.94	7.3	7.4	8,900	8,910	139.06	139.39	0.06
US90A	2710	15,711	8,504	3,715,330	13.96	13.88	0.53	3.8	3.8	26,480	26,482	413.75	413.82	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	27,123	5,447	1,252,801	20.00	16.95	15.23	7.9	8.4	660	664	20.63	20.85	0.01
FM2717	271401	3,191	2,915	2,094,784	20.00	18.90	5.51	7.9	8.0	240	240	7.50	7.53	0.01
FM2760	271403	3,847	3,515	2,568,860	20.00	19.58	2.08	9.5	9.6	660	661	20.63	20.66	0.01
S172	42001	19,522	.	1,642,425	17.99	17.65	1.89	23.0	23.1	1,500	1,503	46.88	47.04	0.03
S316	58001	7,039	6,430	1,642,425	20.00	18.74	6.31	4.8	4.9	740	741	23.13	23.18	0.02
S35	17904	78,632	26,605	2,276,676	7.94	7.75	2.41	10.5	10.6	10,317	10,327	161.20	161.53	0.12
S35	17906	78,632	26,605	2,276,676	11.85	11.42	3.55	11.8	12.0	6,150	6,160	96.09	96.42	0.07
S35	17907	78,632	26,605	2,276,676	15.25	14.56	4.52	16.4	16.7	3,430	3,440	107.19	107.84	0.08
S35	17908	78,632	26,605	2,276,676	20.00	17.26	13.69	6.4	6.8	2,638	2,648	82.44	83.09	0.06
S35	17909	98,154	26,605	2,276,676	18.12	16.93	6.57	15.3	15.7	3,100	3,113	96.88	97.69	0.07
S35	17910	78,632	26,605	1,795,577	8.02	7.77	3.06	10.0	10.1	8,500	8,510	132.81	133.14	0.10
S35	18001	78,632	26,605	1,795,577	6.49	6.33	2.49	13.1	13.2	7,964	7,974	248.88	249.53	0.18
S60	24101	27,123	5,447	1,952,424	16.05	15.74	1.97	10.8	10.9	4,260	4,264	133.13	133.35	0.10
S60	24102	27,123	5,447	2,276,676	15.73	15.47	1.66	8.7	8.7	6,325	6,329	98.83	98.94	0.07
S60	24103	27,123	5,447	2,276,676	20.00	19.15	4.23	3.6	3.7	5,800	5,804	90.63	90.74	0.06
S60	24104	27,123	5,447	2,276,676	20.00	18.94	5.29	6.9	7.0	2,400	2,404	75.00	75.22	0.05
US59	8905	5,180,711	2,549,051	2,112,832	2.78	1.72	37.99	21.1	24.9	13,600	14,287	212.50	233.97	0.11
US59	8904	5,200,233	2,549,051	2,112,832	2.78	1.72	38.12	21.4	25.3	13,400	14,090	209.38	230.93	0.10
US59	8903	5,200,233	2,549,051	2,112,832	2.39	1.56	34.57	21.8	25.2	15,350	16,040	239.84	261.40	0.12
US59	8901	5,200,233	2,549,051	5,841,189	11.03	5.86	46.91	13.6	17.4	14,767	15,457	230.73	252.29	0.11
US59	8804	5,391,456	2,583,046	5,841,189	11.42	5.86	48.67	15.0	19.5	12,867	13,582	201.05	223.39	0.10
US87	14306	7,039	6,430	5,841,189	20.00	19.82	0.90	9.2	9.2	2,850	2,851	89.06	89.12	0.04
US87	14307	7,039	6,430	5,841,189	20.00	19.70	1.51	9.2	9.2	1,700	1,701	53.13	53.18	0.02
US87	14308	7,039	6,430	8,872,292	20.00	19.91	0.43	9.2	9.2	6,020	6,021	188.13	188.18	0.09
US87	14309	7,039	6,430	8,872,292	20.00	19.92	0.41	10.1	10.2	5,667	5,668	177.09	177.15	0.08
US87	14310	7,039	6,430	5,009,267	19.39	19.34	0.24	11.8	11.8	8,280	8,281	258.75	258.81	0.12
US87	14401	7,039	6,430	5,009,267	20.00	19.89	0.55	6.7	6.8	6,363	6,364	198.84	198.90	0.09
US87	14403	7,039	6,430	2,276,676	20.00	19.87	0.66	7.5	7.5	4,800	4,801	150.00	150.06	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	64,915	14,799	3,436,383	20.00	18.60	7.00	5.8	6.0	5,100	5,109	79.69	79.96	0.06
FM2725	275601	68,951	17,095	3,074,361	20.00	16.98	15.09	6.7	7.1	2,000	2,009	62.50	63.07	0.05
S35	18003	117,537	26,605	1,791,737	15.08	13.85	8.17	14.0	14.5	3,200	3,216	100.00	100.97	0.07
S35	18004	117,537	26,605	1,791,737	6.71	6.46	3.81	9.5	9.7	10,592	10,608	331.00	331.97	0.24
S35	18005	117,537	26,605	1,791,737	7.71	7.38	4.35	9.9	10.1	8,867	8,883	277.09	278.07	0.20
S358	61701	5,133,951	2,551,008	2,810,157	5.12	2.79	45.45	4.3	5.7	48,638	49,319	506.65	520.83	0.37

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S361	18010	94,961	31,894	1,470,362	9.81	9.28	5.39	10.3	10.5	5,500	5,513	171.88	172.66	0.12
S44	10201	5,133,951	2,551,008	1,316,451	8.73	2.15	75.39	7.4	14.9	7,700	8,381	120.31	141.59	0.10
US59	8803	2,673,984	1,195,857	15,172,373	20.00	10.58	47.08	18.4	23.3	5,550	5,905	173.44	195.60	0.09
US59	8802	2,673,984	1,195,857	15,172,373	20.00	10.33	48.33	19.3	24.6	5,043	5,398	157.59	179.76	0.08
US59	8801	2,673,984	1,195,857	5,464,655	20.00	9.66	51.69	18.5	24.3	4,600	4,955	143.75	165.91	0.08
US77	37102	2,717,471	1,387,189	2,129,917	4.02	2.75	31.56	19.9	22.7	10,043	10,403	156.92	168.18	0.08
US77	37103	2,717,471	1,387,189	2,129,917	20.00	3.10	84.49	18.8	42.0	900	1,260	14.06	25.33	0.01
US77	37104	5,391,456	2,583,046	2,483,647	6.83	2.93	57.13	18.8	26.1	7,300	8,015	114.06	136.41	0.06
US77	37203	5,381,184	2,577,757	2,483,647	15.17	3.83	74.73	7.8	15.4	7,933	8,647	123.95	146.26	0.07
US77	37201	5,381,184	2,577,757	2,483,647	4.38	2.36	46.05	16.2	20.5	13,200	13,914	206.25	228.55	0.10
US77	37301	5,381,184	2,577,757	1,167,359	1.42	0.89	37.01	16.0	19.0	19,475	20,189	304.30	326.60	0.15
US77	10202	247,233	26,749	1,167,359	1.52	1.48	2.82	20.7	20.9	13,975	14,008	218.36	219.38	0.10
US77	10203	247,233	26,749	1,167,359	1.33	1.30	2.47	20.4	20.5	16,300	16,333	254.69	255.71	0.12
US77	10204	247,233	26,749	2,483,647	3.34	3.24	2.90	22.7	22.9	12,386	12,419	193.53	194.56	0.09
US77	32701	247,233	26,749	2,483,647	4.78	4.58	4.10	28.9	29.2	6,800	6,833	106.25	107.27	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	1,628,700	716,344	4,790,983	2.67	2.47	7.48	26.5	27.1	26,000	26,216	406.25	413.00	0.19
I10	73901	1,628,700	716,344	4,790,983	2.55	2.37	7.17	28.9	29.5	25,000	25,216	390.63	397.38	0.18
I10	50803	1,628,700	716,344	4,790,983	2.56	2.38	7.20	26.2	26.7	27,500	27,716	429.69	436.44	0.20
I10	50802	1,628,700	716,344	4,790,983	2.56	2.37	7.19	23.8	24.3	30,333	30,549	473.95	480.70	0.22
US90	2807	78,355	60,323	1,436,461	2.65	2.61	1.28	8.1	8.1	25,333	25,343	395.83	396.15	0.18
US90	2806	78,355	60,323	1,436,461	6.02	5.84	2.87	12.7	12.8	7,122	7,132	111.28	111.61	0.05

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	129,671	26,749	1,673,506	20.00	17.55	12.24	10.9	11.4	2,900	2,917	90.63	91.70	0.07
FM2925	63003	129,671	26,749	1,673,506	20.00	10.12	49.38	7.7	10.3	587	604	18.34	19.42	0.01
FM508	34204	129,671	26,749	1,673,506	20.00	15.28	23.62	6.6	7.3	2,160	2,177	67.50	68.57	0.05

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S100	33102	117,563	.	1,673,506	4.04	3.94	2.49	10.8	10.9	14,500	14,516	453.13	454.10	0.32
S48	22005	117,563	.	3,096,382	16.69	15.82	5.23	4.7	4.8	15,657	15,673	244.64	245.13	0.18
US77	32702	247,233	26,749	5,006,733	9.84	9.43	4.19	29.6	29.9	6,500	6,533	101.56	102.59	0.05
US77	32703	247,233	26,749	5,006,733	10.24	9.79	4.35	30.3	30.7	6,100	6,133	95.31	96.34	0.04
US77	32704	247,233	26,749	5,006,733	10.38	9.92	4.41	30.4	30.8	6,000	6,033	93.75	94.77	0.04
US77	32705	247,233	26,749	5,006,733	9.39	9.02	4.00	30.1	30.4	6,700	6,733	104.69	105.71	0.05
US77	32710	247,233	26,749	1,951,437	3.48	3.34	3.81	25.6	25.9	8,287	8,320	129.48	130.51	0.06
US77	32708	247,233	26,749	1,951,437	13.66	11.82	13.47	5.4	5.7	10,000	10,033	104.17	104.85	0.05
US77	3907	247,233	26,749	1,951,437	1.14	1.12	1.28	23.2	23.3	27,920	27,953	436.25	437.27	0.20
US77	3908	117,563	.	1,951,437	2.82	2.77	1.50	11.8	11.9	22,200	22,216	346.88	347.36	0.16
US77	3909	117,563	.	1,951,437	1.99	1.97	1.07	11.8	11.8	31,400	31,416	490.63	491.11	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 500-504 / Aransas NWR

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	540	6,163	3,173	10,745	16,908	82,151	16,244	13,829	84,566	12.79	8.56	3.91	17.44	0.09
1	550	138,850	43,928	236,218	375,068	1,737,400	444,080	348,324	1,833,157	270.51	233.90	98.38	406.04	1.84
1	560	0	.	300	300	0	1,007	560	448	0.00	0.53	0.16	0.37	0.00
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
280	550	55,931	8,365	57,187	113,118	413,568	44,515	48,918	409,165	64.39	23.45	13.82	74.02	0.44
290	530	1,769	.	874	2,644	11,723	610	1,024	11,308	1.83	0.32	0.29	1.86	0.01
290	550	32,205	2,375	32,928	65,132	230,891	24,852	27,311	228,432	35.95	13.09	7.71	41.33	0.25
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	530	17,939	.	8,861	26,800	88,397	4,597	7,724	85,270	13.76	2.42	2.18	14.00	0.09
350	540	10,192	10,192	5,035	15,227	51,063	2,655	4,462	49,257	7.95	1.40	1.26	8.09	0.05
350	550	286,037	72,789	141,299	427,336	1,566,127	81,445	136,843	1,510,729	243.85	42.90	38.65	248.10	1.66
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	550	27,924	15,263	13,794	41,719	149,070	7,752	13,025	143,797	23.21	4.08	3.68	23.61	0.16
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
380	550	16,977	16,977	8,386	25,363	81,333	4,230	7,107	78,456	12.66	2.23	2.01	12.88	0.09
400	540	3,146	3,146	1,554	4,700	11,455	596	1,001	11,050	1.78	0.31	0.28	1.81	0.01
400	550	166,678	144,697	82,337	249,015	685,398	35,643	59,888	661,154	106.72	18.77	16.91	108.58	0.73
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
410	550	3,982	3,053	1,967	5,949	15,807	822	1,381	15,248	2.46	0.43	0.39	2.50	0.02
460	550	11,713	.	5,786	17,500	31,425	1,634	2,746	30,314	4.89	0.86	0.78	4.98	0.03
500	540	23,343	.	11,531	34,874	26,734	1,390	2,336	25,788	4.16	0.73	0.66	4.23	0.03
500	650	30,976	.	15,302	46,277	131,440	6,835	11,485	126,791	20.47	3.60	3.24	20.82	0.14
500	670	28,071	.	13,867	41,938	132,974	6,915	11,619	128,270	20.70	3.64	3.28	21.06	0.14
540	350	14,132	2,625	6,981	21,113	71,403	3,713	6,239	68,877	11.12	1.96	1.76	11.31	0.08
550	1	471,316	287,954	1,345,919	1,817,235	7,486,482	2,832,931	2,011,701	8,307,713	1,165.65	1,492.15	568.19	2,089.61	7.95
550	280	234,152	111,253	239,408	473,560	1,731,006	186,320	204,750	1,712,577	269.52	98.14	57.83	309.83	1.84
550	290	50,331	7,560	51,461	101,792	361,005	38,857	42,701	357,161	56.21	20.47	12.06	64.62	0.38
550	350	1,303,491	632,246	643,907	1,947,398	7,137,917	371,199	623,686	6,885,430	1,111.38	195.52	176.16	1,130.74	7.58
550	360	137,350	92,081	67,849	205,199	733,648	38,153	64,104	707,697	114.23	20.10	18.11	116.22	0.78
550	380	13,358	3,038	6,599	19,957	63,998	3,328	5,592	61,734	9.96	1.75	1.58	10.14	0.07
550	400	85,923	82,851	42,445	128,368	352,838	18,349	30,830	340,358	54.94	9.66	8.71	55.89	0.37
550	410	2,525	2,525	1,247	3,772	10,023	521	876	9,668	1.56	0.27	0.25	1.59	0.01
550	450	16,274	3,268	8,039	24,313	46,780	2,433	4,087	45,125	7.28	1.28	1.15	7.41	0.05
550	470	4,223	3,858	2,086	6,310	9,250	481	808	8,922	1.44	0.25	0.23	1.47	0.01
550	500	51,464	16,539	25,422	76,886	77,488	4,030	6,771	74,747	12.06	2.12	1.91	12.28	0.08
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
		3,335,730	1,585,805	3,216,760	6,552,491	24,552,334	4,363,956	3,860,373	25,055,917	3,822.81	2,298.57	1,090.33	5,031.05	26.06

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 500-504 / Aransas NWR

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	540	10,271	5,289	17,909	28,180	91,279	21,152	20,337	92,093	14.21	11.14	5.74	19.61	0.15
1	550	231,416	73,213	393,697	625,113	1,930,444	578,230	512,241	1,996,433	300.57	304.56	144.68	460.46	3.07
1	560	0	.	500	500	0	1,312	823	489	0.00	0.69	0.23	0.46	0.00
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
280	550	93,219	13,942	95,311	188,530	459,521	57,963	71,939	445,544	71.55	30.53	20.32	81.76	0.73
290	530	2,949	.	1,457	4,406	13,026	794	1,506	12,313	2.03	0.42	0.43	2.02	0.02
290	550	53,675	3,958	54,879	108,554	256,545	32,360	40,163	248,742	39.94	17.04	11.34	45.65	0.41
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	530	29,898	.	14,769	44,667	98,219	5,986	11,359	92,846	15.29	3.15	3.21	15.24	0.16
350	540	16,987	16,987	8,392	25,379	56,736	3,458	6,561	53,633	8.83	1.82	1.85	8.80	0.09
350	550	476,729	121,316	235,498	712,227	1,740,141	106,048	201,239	1,644,949	270.94	55.86	56.84	269.96	2.77
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	550	46,541	25,439	22,990	69,531	165,634	10,094	19,155	156,573	25.79	5.32	5.41	25.70	0.26
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
380	550	28,295	28,295	13,977	42,272	90,371	5,507	10,451	85,427	14.07	2.90	2.95	14.02	0.14
400	540	5,244	5,244	2,590	7,834	12,728	776	1,472	12,032	1.98	0.41	0.42	1.97	0.02
400	550	277,797	241,162	137,228	415,025	761,553	46,411	88,070	719,894	118.57	24.45	24.87	118.14	1.21
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
410	550	6,637	5,089	3,278	9,915	17,563	1,070	2,031	16,602	2.73	0.56	0.57	2.72	0.03
460	550	19,522	.	9,644	29,166	34,917	2,128	4,038	33,007	5.44	1.12	1.14	5.42	0.06
500	540	38,905	.	19,218	58,123	29,704	1,810	3,435	28,079	4.62	0.95	0.97	4.61	0.05
500	650	51,626	.	25,503	77,129	146,045	8,900	16,889	138,055	22.74	4.69	4.77	22.66	0.23
500	670	46,785	.	23,111	69,896	147,748	9,004	17,086	139,666	23.00	4.74	4.83	22.92	0.24
540	350	23,554	4,374	11,635	35,189	79,337	4,835	9,175	74,997	12.35	2.55	2.59	12.31	0.13
550	1	785,527	479,923	2,243,198	3,028,725	8,318,313	3,688,713	2,958,383	9,048,643	1,295.17	1,942.91	835.57	2,402.50	13.24
550	280	390,253	185,422	399,014	789,267	1,923,340	242,605	301,103	1,864,842	299.47	127.78	85.04	342.21	3.06
550	290	83,885	12,600	85,769	169,654	401,116	50,596	62,796	388,917	62.45	26.65	17.74	71.37	0.64
550	350	2,172,485	1,053,743	1,073,179	3,245,664	7,931,019	483,332	917,185	7,497,166	1,234.86	254.58	259.05	1,230.39	12.63
550	360	228,916	153,468	113,082	341,998	815,164	49,678	94,270	770,572	126.92	26.17	26.63	126.46	1.30
550	380	22,264	5,063	10,998	33,262	71,109	4,334	8,223	67,219	11.07	2.28	2.32	11.03	0.11
550	400	143,205	138,085	70,742	213,947	392,043	23,892	45,338	370,597	61.04	12.58	12.81	60.82	0.62
550	410	4,208	4,208	2,079	6,287	11,136	679	1,288	10,527	1.73	0.36	0.36	1.73	0.02
550	450	27,123	5,447	13,399	40,522	51,978	3,168	6,011	49,134	8.09	1.67	1.70	8.06	0.08
550	470	7,039	6,430	3,477	10,516	10,277	626	1,189	9,715	1.60	0.33	0.34	1.59	0.02
550	500	85,773	27,565	42,370	128,143	86,098	5,247	9,957	81,388	13.41	2.76	2.81	13.36	0.14
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
		5,559,551	2,643,009	5,361,267	10,920,818	27,280,371	5,682,234	5,677,019	27,285,586	4,247.57	2,992.93	1,603.43	5,637.07	43.43

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITIC
FM1495	58701	259,589	230,694	2,342,909	20.00	11.62	41.90	3.4	4.3	3,600	3,634	112.50	114.65	0.08
FM1764	160701	30,239	16,367	4,149,703	14.52	14.39	0.94	4.5	4.5	24,000	24,004	375.00	375.13	0.27
FM1764	160702	20,159	10,911	4,149,703	20.00	19.81	0.94	3.0	3.0	24,000	24,003	750.00	750.17	0.54
FM2918	293901	6,507	5,578	4,334,935	20.00	18.79	6.04	7.0	7.2	500	501	15.63	15.68	0.01
FM360	52706	262,949	233,127	5,014,448	20.00	12.06	39.70	9.2	11.3	1,500	1,535	46.88	49.05	0.04
FM523	100301	25,764	22,897	1,867,826	20.00	19.19	4.04	3.2	3.2	6,625	6,628	207.03	207.24	0.15
I45	11004	28,245	15,287	12,973,790	6.95	6.94	0.14	11.4	11.4	62,000	62,004	968.75	968.87	0.44
I45	11005	24,864	13,458	5,528,218	2.18	2.18	0.09	10.0	10.0	95,667	95,670	1494.8	1494.9	0.68
I45	67508	43,097	23,326	15,422,523	12.91	12.86	0.32	17.4	17.4	26,000	26,006	406.25	406.43	0.18
S134	37602	252,961	111,985	7,009,427	20.00	18.46	7.68	6.5	6.7	15,900	15,934	496.88	498.97	0.36
S146	38905	240,021	106,256	2,496,949	9.75	8.99	7.77	6.2	6.4	15,700	15,732	245.31	246.31	0.18
S146	38906	292,684	129,570	2,496,949	10.65	9.57	10.09	7.5	7.8	11,786	11,825	184.16	185.37	0.13
S146	38912	186,802	82,697	2,496,949	9.98	9.35	6.29	4.8	4.9	19,700	19,725	307.81	308.59	0.22
S197	38911	36,371	19,686	3,294,557	20.00	19.25	3.77	5.4	5.5	5,833	5,838	182.28	182.58	0.13
S288	59804	98,494	87,531	2,655,275	6.85	6.70	2.17	12.2	12.3	12,600	12,613	196.88	197.28	0.14
S330	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
S332	58601	65,509	58,217	2,057,202	11.46	11.11	3.08	8.1	8.2	8,767	8,776	273.97	274.51	0.20
S341	62801	40,319	21,822	4,149,703	20.00	19.14	4.29	6.0	6.1	5,100	5,105	79.69	79.85	0.06
S348	68601	75,261	40,735	7,909,001	19.32	19.01	1.58	11.2	11.3	14,500	14,510	453.13	453.75	0.32
S35	17801	44,033	12,817	1,764,574	5.81	5.74	1.29	5.3	5.4	21,500	21,506	335.94	336.12	0.24
S35	17802	44,033	12,817	2,342,909	10.26	10.09	1.70	6.3	6.3	13,773	13,779	215.20	215.39	0.15
S35	17803	44,033	12,817	2,342,909	13.82	13.50	2.28	7.2	7.3	8,900	8,906	139.06	139.24	0.10
S35	17901	44,033	12,817	2,342,909	10.29	10.11	1.71	10.4	10.4	8,300	8,306	129.69	129.87	0.09
S35	17902	47,179	15,963	2,342,909	10.46	10.26	1.86	10.3	10.4	8,222	8,228	256.94	257.33	0.18
S35	17903	47,179	15,963	2,342,909	13.90	13.56	2.46	10.5	10.6	6,067	6,073	189.59	189.98	0.14
S36	18705	266,096	236,273	2,535,398	13.80	12.21	11.52	15.1	15.7	4,600	4,635	143.75	145.96	0.10
S36	18801	266,096	236,273	2,535,398	11.10	10.05	9.48	8.7	9.0	9,900	9,935	309.38	311.58	0.22
S36	18802	266,096	236,273	2,535,398	19.72	16.62	15.69	10.2	10.9	4,750	4,785	148.44	150.64	0.11
S36	18803	266,096	236,273	3,516,385	20.00	17.39	13.07	10.2	10.7	6,013	6,048	187.91	190.11	0.14
S36	18804	266,096	236,273	3,516,385	16.53	14.90	9.83	7.4	7.7	11,367	11,402	355.22	357.42	0.26
S36	18805	266,096	236,273	3,516,385	20.00	16.81	15.93	8.1	8.6	6,000	6,035	187.50	189.71	0.14
S36	18806	266,096	236,273	3,516,385	20.00	17.02	14.91	7.7	8.2	6,820	6,855	213.13	215.33	0.15
S8	325603	42,263	12,817	4,149,703	15.04	14.84	1.36	4.0	4.0	26,067	26,073	271.53	271.65	0.19
S8	325604	42,263	12,817	4,149,703	15.68	15.46	1.42	4.0	4.0	25,000	25,006	260.42	260.53	0.19
S87	37606	202,349	109,521	6,504,983	20.00	17.40	13.01	9.2	9.7	5,000	5,027	156.25	157.93	0.11
US59	17707	2,829,203	1,293,036	4,149,703	2.37	2.07	12.71	6.2	6.6	106,000	106,375	1656.3	1668.0	0.76
US75	5104	202,349	109,521	6,011,120	10.14	9.83	2.98	6.2	6.3	36,000	36,027	562.50	563.34	0.26
US90	2801	47,013	36,194	3,715,330	12.14	11.97	1.36	7.1	7.1	16,375	16,381	255.86	256.05	0.12
US90	2802	47,013	36,194	3,715,330	20.00	19.52	2.40	7.3	7.4	8,900	8,906	139.06	139.26	0.06
US90A	2710	9,427	5,102	3,715,330	13.96	13.91	0.32	3.8	3.8	26,480	26,481	413.75	413.79	0.19

J

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
495	58701	259,589	230,694	2,342,909	20.00	11.62	41.90	3.4	4.3	3,600	3,634	112.50	114.65	0.08
764	160701	30,239	16,367	4,149,703	14.52	14.39	0.94	4.5	4.5	24,000	24,004	375.00	375.13	0.27
764	160702	20,159	10,911	4,149,703	20.00	19.81	0.94	3.0	3.0	24,000	24,003	750.00	750.17	0.54
918	293901	6,507	5,578	4,334,935	20.00	18.79	6.04	7.0	7.2	500	501	15.63	15.68	0.01
60	52706	262,949	233,127	5,014,448	20.00	12.06	39.70	9.2	11.3	1,500	1,535	46.88	49.05	0.04
23	100301	25,764	22,897	1,867,826	20.00	19.19	4.04	3.2	3.2	6,625	6,628	207.03	207.24	0.15
	11004	28,245	15,287	12,973,790	6.95	6.94	0.14	11.4	11.4	62,000	62,004	968.75	968.87	0.44
	11005	24,864	13,458	5,528,218	2.18	2.18	0.09	10.0	10.0	95,667	95,670	1494.8	1494.9	0.68
	67508	43,097	23,326	15,422,523	12.91	12.86	0.32	17.4	17.4	26,000	26,006	406.25	406.43	0.18
4	37602	252,961	111,985	7,009,427	20.00	18.46	7.68	6.5	6.7	15,900	15,934	496.88	498.97	0.36
6	38905	240,021	106,256	2,496,949	9.75	8.99	7.77	6.2	6.4	15,700	15,732	245.31	246.31	0.18
6	38906	292,684	129,570	2,496,949	10.65	9.57	10.09	7.5	7.8	11,786	11,825	184.16	185.37	0.13
6	38912	186,802	82,697	2,496,949	9.98	9.35	6.29	4.8	4.9	19,700	19,725	307.81	308.59	0.22
7	38911	36,371	19,686	3,294,557	20.00	19.25	3.77	5.4	5.5	5,833	5,838	182.28	182.58	0.13
8	59804	98,494	87,531	2,655,275	6.85	6.70	2.17	12.2	12.3	12,600	12,613	196.88	197.28	0.14
0	50807	301,555	134,861	2,496,949	4.54	4.32	4.70	8.0	8.1	26,000	26,040	406.25	407.50	0.29
2	58601	65,509	58,217	2,057,202	11.46	11.11	3.08	8.1	8.2	8,767	8,776	273.97	274.51	0.20
1	62801	40,319	21,822	4,149,703	20.00	19.14	4.29	6.0	6.1	5,100	5,105	79.69	79.85	0.06
8	68601	75,261	40,735	7,909,001	19.32	19.01	1.58	11.2	11.3	14,500	14,510	453.13	453.75	0.32
	17801	44,033	12,817	1,764,574	5.81	5.74	1.29	5.3	5.4	21,500	21,506	335.94	336.12	0.24
	17802	44,033	12,817	2,342,909	10.26	10.09	1.70	6.3	6.3	13,773	13,779	215.20	215.39	0.15
	17803	44,033	12,817	2,342,909	13.82	13.50	2.28	7.2	7.3	8,900	8,906	139.06	139.24	0.10
	17901	44,033	12,817	2,342,909	10.29	10.11	1.71	10.4	10.4	8,300	8,306	129.69	129.87	0.09
	17902	47,179	15,963	2,342,909	10.46	10.26	1.86	10.3	10.4	8,222	8,228	256.94	257.33	0.18
	17903	47,179	15,963	2,342,909	13.90	13.56	2.46	10.5	10.6	6,067	6,073	189.59	189.98	0.14
	18705	266,096	236,273	2,535,398	13.80	12.21	11.52	15.1	15.7	4,600	4,635	143.75	145.96	0.10
	18801	266,096	236,273	2,535,398	11.10	10.05	9.48	8.7	9.0	9,900	9,935	309.38	311.58	0.22
	18802	266,096	236,273	2,535,398	19.72	16.62	15.69	10.2	10.9	4,750	4,785	148.44	150.64	0.11
	18803	266,096	236,273	3,516,385	20.00	17.39	13.07	10.2	10.7	6,013	6,048	187.91	190.11	0.14
	18804	266,096	236,273	3,516,385	16.53	14.90	9.83	7.4	7.7	11,367	11,402	355.22	357.42	0.26
	18805	266,096	236,273	3,516,385	20.00	16.81	15.93	8.1	8.6	6,000	6,035	187.50	189.71	0.14
	18806	266,096	236,273	3,516,385	20.00	17.02	14.91	7.7	8.2	6,820	6,855	213.13	215.33	0.15
	325603	42,263	12,817	4,149,703	15.04	14.84	1.36	4.0	4.0	26,067	26,073	271.53	271.65	0.19
	325604	42,263	12,817	4,149,703	15.68	15.46	1.42	4.0	4.0	25,000	25,006	260.42	260.53	0.19
	37606	202,349	109,521	6,504,983	20.00	17.40	13.01	9.2	9.7	5,000	5,027	156.25	157.93	0.11
9	17707	2,829,203	1,293,036	4,149,703	2.37	2.07	12.71	6.2	6.6	106,000	106,375	1656.3	1668.0	0.76
5	5104	202,349	109,521	6,011,120	10.14	9.83	2.98	6.2	6.3	36,000	36,027	562.50	563.34	0.26
0	2801	47,013	36,194	3,715,330	12.14	11.97	1.36	7.1	7.1	16,375	16,381	255.86	256.05	0.12
0	2802	47,013	36,194	3,715,330	20.00	19.52	2.40	7.3	7.4	8,900	8,906	139.06	139.26	0.06
0A	2710	9,427	5,102	3,715,330	13.96	13.91	0.32	3.8	3.8	26,480	26,481	413.75	413.79	0.19

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2031	60401	16,274	3,268	1,252,801	20.00	18.05	9.73	7.9	8.2	660	662	20.63	20.76	0.01
FM2717	271401	1,915	1,749	2,094,784	20.00	19.32	3.38	7.9	8.0	240	240	7.50	7.52	0.01
FM2760	271403	2,308	2,109	2,568,860	20.00	19.75	1.26	9.5	9.5	660	660	20.63	20.64	0.01
S172	42001	11,713	.	1,642,425	17.99	17.79	1.14	23.0	23.1	1,500	1,502	46.88	46.97	0.03
S316	58001	4,223	3,858	1,642,425	20.00	19.22	3.89	4.8	4.9	740	741	23.13	23.16	0.02
S35	17904	47,179	15,963	2,276,676	7.94	7.83	1.46	10.5	10.6	10,317	10,323	161.20	161.40	0.12
S35	17906	47,179	15,963	2,276,676	11.85	11.59	2.16	11.8	11.9	6,150	6,156	96.09	96.29	0.07
S35	17907	47,179	15,963	2,276,676	15.25	14.83	2.76	16.4	16.6	3,430	3,436	107.19	107.58	0.08
S35	17908	47,179	15,963	2,276,676	20.00	18.26	8.69	6.4	6.6	2,638	2,644	82.44	82.83	0.06
S35	17909	58,892	15,963	2,276,676	18.12	17.39	4.05	15.3	15.5	3,100	3,108	96.88	97.36	0.07
S35	17910	47,179	15,963	1,795,577	8.02	7.87	1.86	10.0	10.0	8,500	8,506	132.81	133.01	0.10
S35	18001	47,179	15,963	1,795,577	6.49	6.40	1.51	13.1	13.2	7,964	7,970	248.88	249.27	0.18
S60	24101	16,274	3,268	1,952,424	16.05	15.86	1.19	10.8	10.8	4,260	4,262	133.13	133.26	0.10
S60	24102	16,274	3,268	2,276,676	15.73	15.57	1.00	8.7	8.7	6,325	6,327	98.83	98.90	0.07
S60	24103	16,274	3,268	2,276,676	20.00	19.48	2.58	3.6	3.6	5,800	5,802	90.63	90.69	0.06
S60	24104	16,274	3,268	2,276,676	20.00	19.35	3.24	6.9	7.0	2,400	2,402	75.00	75.13	0.05
US59	8905	3,108,426	1,529,431	2,112,832	2.78	2.03	26.88	21.1	23.5	13,600	14,012	212.50	225.38	0.10
US59	8904	3,120,140	1,529,431	2,112,832	2.78	2.03	26.99	21.4	23.8	13,400	13,814	209.38	222.31	0.10
US59	8903	3,120,140	1,529,431	2,112,832	2.39	1.81	24.07	21.8	23.8	15,350	15,764	239.84	252.78	0.11
US59	8901	3,120,140	1,529,431	5,841,189	11.03	7.21	34.65	13.6	15.9	14,767	15,181	230.73	243.67	0.11
US59	8804	3,234,873	1,549,828	5,841,189	11.42	7.28	36.26	15.0	17.8	12,867	13,296	201.05	214.45	0.10
US87	14306	4,223	3,858	5,841,189	20.00	19.89	0.54	9.2	9.2	2,850	2,851	89.06	89.10	0.04
US87	14307	4,223	3,858	5,841,189	20.00	19.82	0.91	9.2	9.2	1,700	1,701	53.13	53.16	0.02
US87	14308	4,223	3,858	8,872,292	20.00	19.95	0.26	9.2	9.2	6,020	6,021	188.13	188.16	0.09
US87	14309	4,223	3,858	8,872,292	20.00	19.95	0.25	10.1	10.2	5,667	5,668	177.09	177.13	0.08
US87	14310	4,223	3,858	5,009,267	19.39	19.36	0.15	11.8	11.8	8,280	8,281	258.75	258.79	0.12
US87	14401	4,223	3,858	5,009,267	20.00	19.93	0.33	6.7	6.8	6,363	6,364	198.84	198.88	0.09
US87	14403	4,223	3,858	2,276,676	20.00	19.92	0.40	7.5	7.5	4,800	4,801	150.00	150.04	0.07

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1069	154904	38,949	8,879	3,436,383	20.00	19.14	4.32	5.8	5.9	5,100	5,105	79.69	79.85	0.06
FM2725	275601	41,370	10,257	3,074,361	20.00	18.07	9.64	6.7	7.0	2,000	2,005	62.50	62.84	0.04
S35	18003	70,522	15,963	1,791,737	15.08	14.32	5.07	14.0	14.3	3,200	3,209	100.00	100.58	0.07
S35	18004	70,522	15,963	1,791,737	6.71	6.56	2.32	9.5	9.6	10,592	10,601	331.00	331.58	0.24
S35	18005	70,522	15,963	1,791,737	7.71	7.51	2.66	9.9	10.0	8,867	8,876	277.09	277.68	0.20

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
S358	61701	3,080,371	1,530,605	2,810,157	5.12	3.41	33.33	4.3	5.1	48,638	49,047	506.65	515.16	0.3
S361	18010	56,976	19,137	1,470,362	9.81	9.49	3.31	10.3	10.4	5,500	5,508	171.88	172.35	0.1
S44	10201	3,080,371	1,530,605	1,316,451	8.73	3.08	64.76	7.4	12.1	7,700	8,109	120.31	133.08	0.1
US59	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.0
US59	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.0
US59	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.0
US77	37102	1,630,483	832,313	2,129,917	4.02	3.15	21.67	19.9	21.6	10,043	10,259	156.92	163.68	0.0
US77	37103	1,630,483	832,313	2,129,917	20.00	4.68	76.58	18.8	34.6	900	1,116	14.06	20.82	0.0
US77	37104	3,234,873	1,549,828	2,483,647	6.83	3.79	44.43	18.8	23.3	7,300	7,729	114.06	127.47	0.0
US77	37203	3,228,711	1,546,654	2,483,647	15.17	5.47	63.95	7.8	12.5	7,933	8,361	123.95	137.33	0.0
US77	37201	3,228,711	1,546,654	2,483,647	4.38	2.90	33.87	16.2	18.9	13,200	13,628	206.25	219.63	0.1
US77	37301	3,228,711	1,546,654	1,167,359	1.42	1.05	26.06	16.0	17.8	19,475	19,903	304.30	317.68	0.1
US77	10202	148,340	16,049	1,167,359	1.52	1.50	1.71	20.7	20.8	13,975	13,995	218.36	218.97	0.1
US77	10203	148,340	16,049	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.1
US77	10204	148,340	16,049	2,483,647	3.34	3.28	1.76	22.7	22.8	12,386	12,406	193.53	194.15	0.0
US77	32701	148,340	16,049	2,483,647	4.78	4.66	2.50	28.9	29.1	6,800	6,820	106.25	106.86	0.0

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
I10	73902	977,220	429,807	4,790,983	2.67	2.55	4.63	26.5	26.9	26,000	26,130	406.25	410.30	0.1
I10	73901	977,220	429,807	4,790,983	2.55	2.44	4.43	28.9	29.3	25,000	25,130	390.63	394.68	0.1
I10	50803	977,220	429,807	4,790,983	2.56	2.45	4.45	26.2	26.5	27,500	27,630	429.69	433.74	0.2
I10	50802	977,220	429,807	4,790,983	2.56	2.44	4.44	23.8	24.1	30,333	30,463	473.95	478.00	0.2
US90	2807	47,013	36,194	1,436,461	2.65	2.63	0.77	8.1	8.1	25,333	25,339	395.83	396.02	0.1
US90	2806	47,013	36,194	1,436,461	6.02	5.91	1.74	12.7	12.7	7,122	7,128	111.28	111.48	0.0

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
FM106	142503	77,802	16,049	1,673,506	20.00	18.46	7.72	10.9	11.2	2,900	2,910	90.63	91.27	0.0

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

AY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
	61701	3,080,371	1,530,605	2,810,157	5.12	3.41	33.33	4.3	5.1	48,638	49,047	506.65	515.16	0.37
	18010	56,976	19,137	1,470,362	9.81	9.49	3.31	10.3	10.4	5,500	5,508	171.88	172.35	0.12
	10201	3,080,371	1,530,605	1,316,451	8.73	3.08	64.76	7.4	12.1	7,700	8,109	120.31	133.08	0.10
	8803	1,604,391	717,514	15,172,373	20.00	13.04	34.80	18.4	21.4	5,550	5,763	173.44	186.74	0.08
	8802	1,604,391	717,514	15,172,373	20.00	12.81	35.95	19.3	22.5	5,043	5,256	157.59	170.89	0.08
	8801	1,604,391	717,514	5,464,655	20.00	12.18	39.10	18.5	22.1	4,600	4,813	143.75	157.05	0.07
	37102	1,630,483	832,313	2,129,917	4.02	3.15	21.67	19.9	21.6	10,043	10,259	156.92	163.68	0.07
	37103	1,630,483	832,313	2,129,917	20.00	4.68	76.58	18.8	34.6	900	1,116	14.06	20.82	0.01
	37104	3,234,873	1,549,828	2,483,647	6.83	3.79	44.43	18.8	23.3	7,300	7,729	114.06	127.47	0.06
	37203	3,228,711	1,546,654	2,483,647	15.17	5.47	63.95	7.8	12.5	7,933	8,361	123.95	137.33	0.06
	37201	3,228,711	1,546,654	2,483,647	4.38	2.90	33.87	16.2	18.9	13,200	13,628	206.25	219.63	0.10
	37301	3,228,711	1,546,654	1,167,359	1.42	1.05	26.06	16.0	17.8	19,475	19,903	304.30	317.68	0.14
	10202	148,340	16,049	1,167,359	1.52	1.50	1.71	20.7	20.8	13,975	13,995	218.36	218.97	0.10
	10203	148,340	16,049	1,167,359	1.33	1.31	1.50	20.4	20.5	16,300	16,320	254.69	255.30	0.12
	10204	148,340	16,049	2,483,647	3.34	3.28	1.76	22.7	22.8	12,386	12,406	193.53	194.15	0.09
	32701	148,340	16,049	2,483,647	4.78	4.66	2.50	28.9	29.1	6,800	6,820	106.25	106.86	0.05

DISTRICT=BEAUMONT DISTRICT

AY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
	73902	977,220	429,807	4,790,983	2.67	2.55	4.63	26.5	26.9	26,000	26,130	406.25	410.30	0.19
	73901	977,220	429,807	4,790,983	2.55	2.44	4.43	28.9	29.3	25,000	25,130	390.63	394.68	0.18
	50803	977,220	429,807	4,790,983	2.56	2.45	4.45	26.2	26.5	27,500	27,630	429.69	433.74	0.20
	50802	977,220	429,807	4,790,983	2.56	2.44	4.44	23.8	24.1	30,333	30,463	473.95	478.00	0.22
	2807	47,013	36,194	1,436,461	2.65	2.63	0.77	8.1	8.1	25,333	25,339	395.83	396.02	0.18
	2806	47,013	36,194	1,436,461	6.02	5.91	1.74	12.7	12.7	7,122	7,128	111.28	111.48	0.05

DISTRICT=PHARR DISTRICT

AY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
6	142503	77,802	16,049	1,673,506	20.00	18.46	7.72	10.9	11.2	2,900	2,910	90.63	91.27	0.07

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 500-504 / Aransas NWR
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT
(continued)

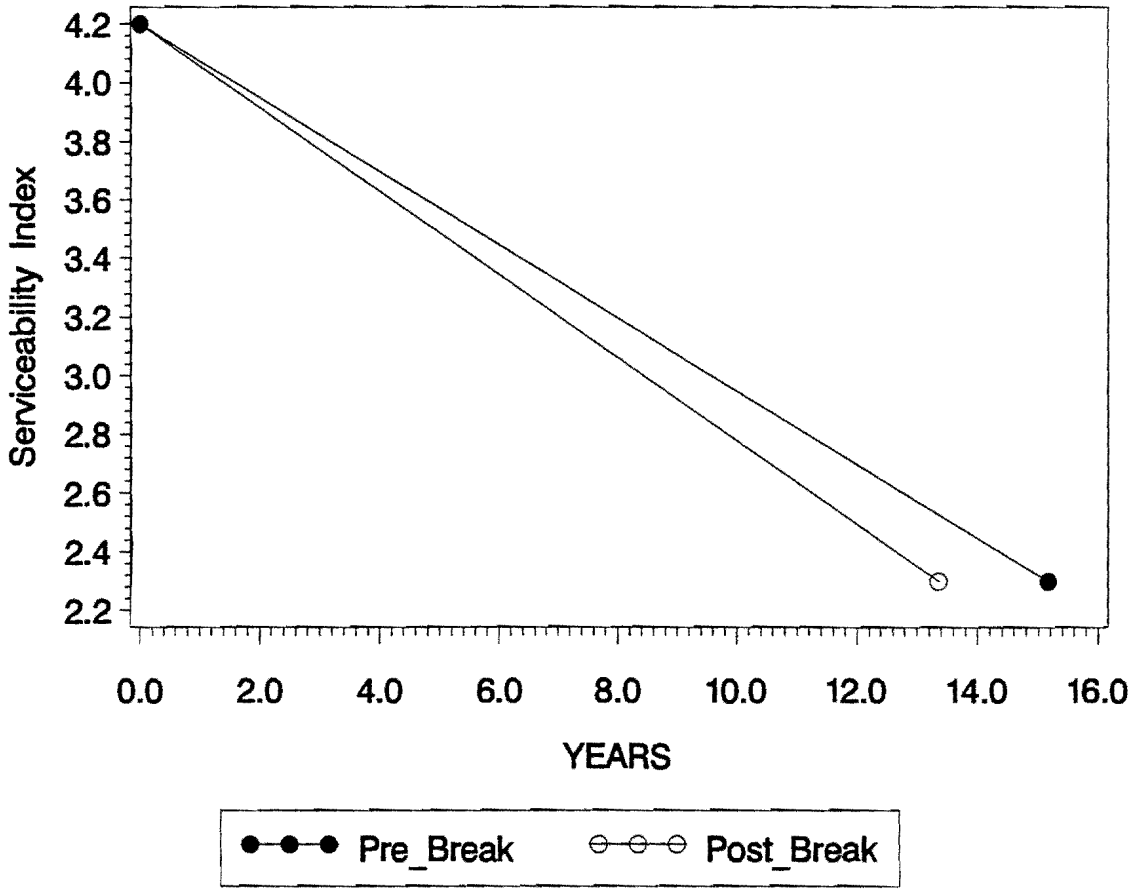
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM2925	63003	77,802	16,049	1,673,506	20.00	12.62	36.92	7.7	9.3	587	597	18.34	18.99	0.01
FM508	34204	77,802	16,049	1,673,506	20.00	16.87	15.65	6.6	7.0	2,160	2,170	67.50	68.14	0.05
S100	33102	70,538	.	1,673,506	4.04	3.98	1.51	10.8	10.9	14,500	14,509	453.13	453.71	0.32
S48	22005	70,538	.	3,096,382	16.69	16.15	3.21	4.7	4.8	15,657	15,666	244.64	244.93	0.17
US77	32702	148,340	16,049	5,006,733	9.84	9.59	2.56	29.6	29.8	6,500	6,520	101.56	102.18	0.05
US77	32703	148,340	16,049	5,006,733	10.24	9.97	2.66	30.3	30.5	6,100	6,120	95.31	95.93	0.04
US77	32704	148,340	16,049	5,006,733	10.38	10.10	2.69	30.4	30.6	6,000	6,020	93.75	94.36	0.04
US77	32705	148,340	16,049	5,006,733	9.39	9.16	2.44	30.1	30.3	6,700	6,720	104.69	105.30	0.05
US77	32710	148,340	16,049	1,951,437	3.48	3.40	2.32	25.6	25.8	8,287	8,307	129.48	130.10	0.06
US77	32708	148,340	16,049	1,951,437	13.66	12.49	8.54	5.4	5.6	10,000	10,020	104.17	104.58	0.05
US77	3907	148,340	16,049	1,951,437	1.14	1.13	0.77	23.2	23.3	27,920	27,940	436.25	436.86	0.20
US77	3908	70,538	.	1,951,437	2.82	2.79	0.91	11.8	11.8	22,200	22,209	346.88	347.17	0.16
US77	3909	70,538	.	1,951,437	1.99	1.98	0.64	11.8	11.8	31,400	31,409	490.63	490.92	0.22

APPENDIX K

Laguna Madre Break Range (575-666)

PAVEMENT LIFETIME

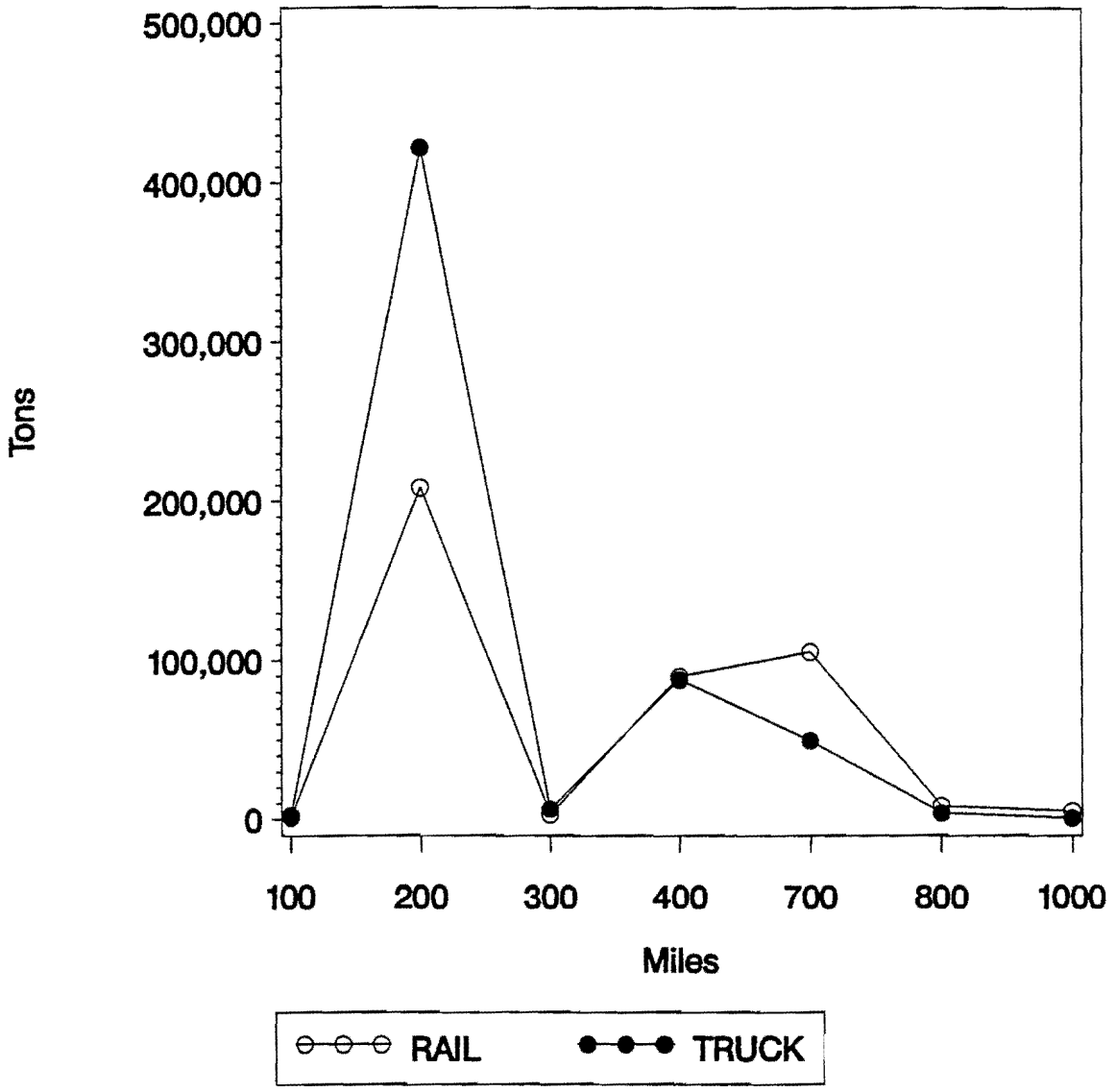
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre
HIGHWAY=US77 CONTROL/SECTION=37203



TONS TRANSPORTED

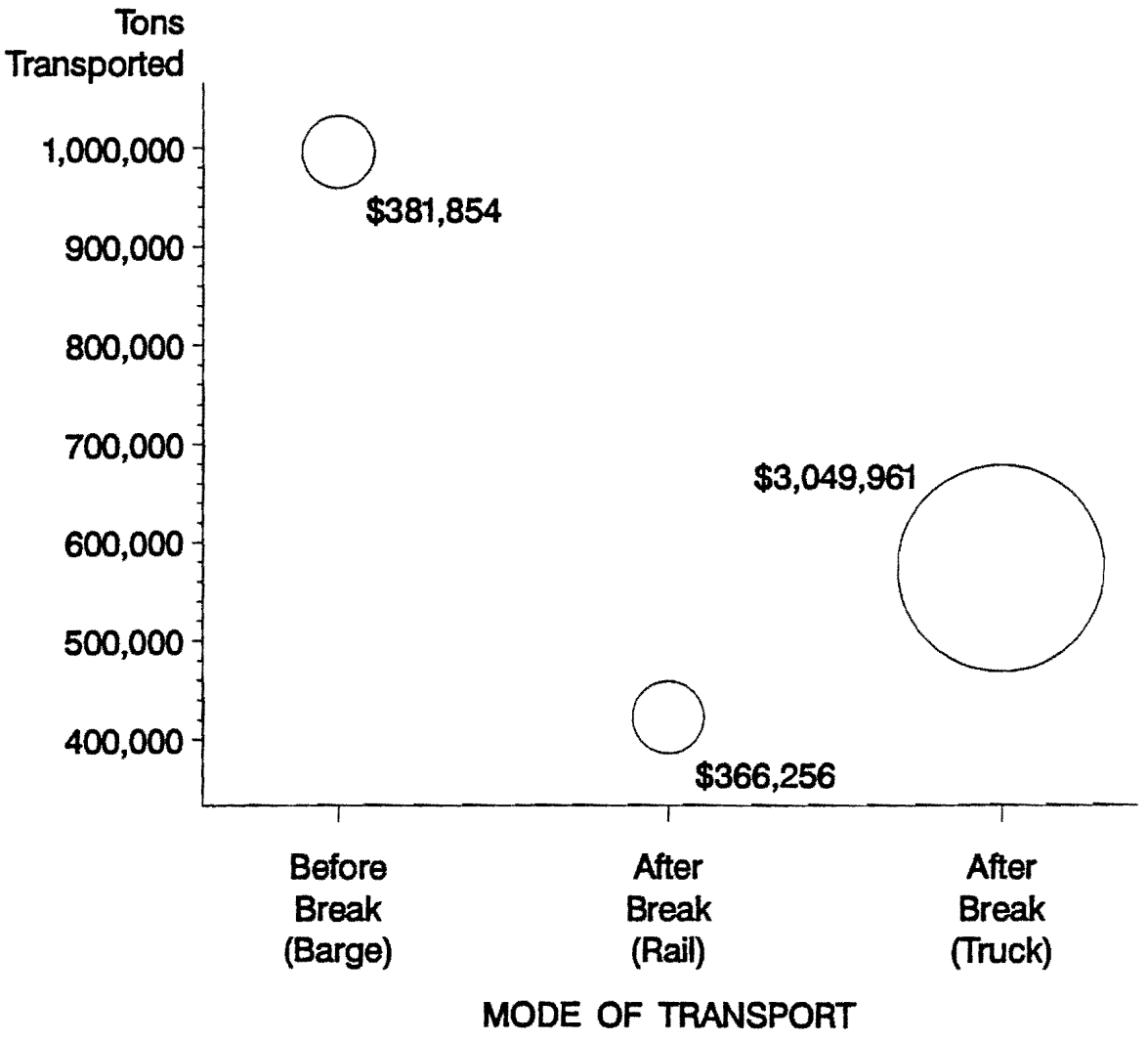
AS A FUNCTION OF DISTANCE

BREAK POINT 575 – 666 / Laguna Madre



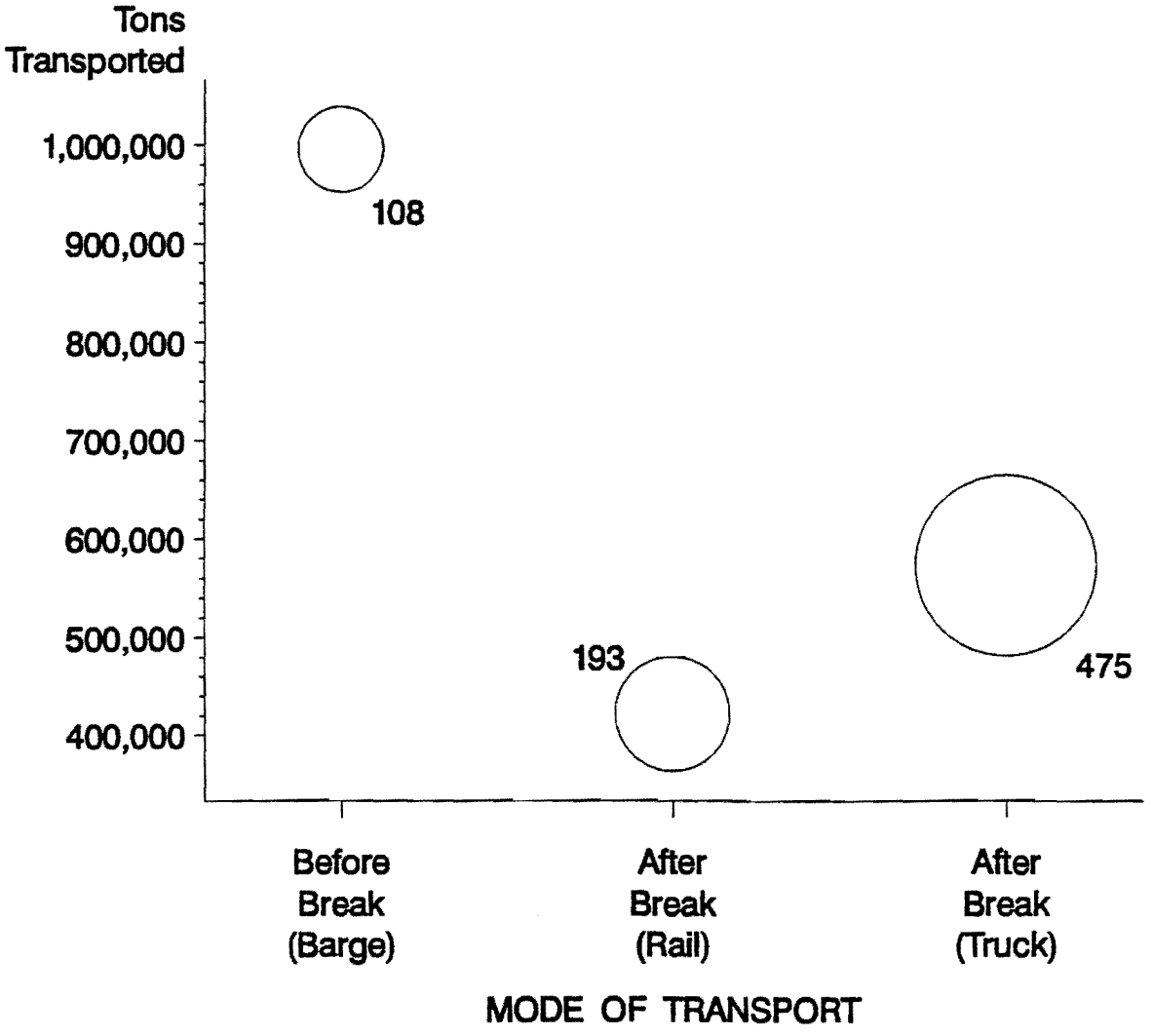
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 575–666 / Laguna Madre



EMISSIONS (Tons)

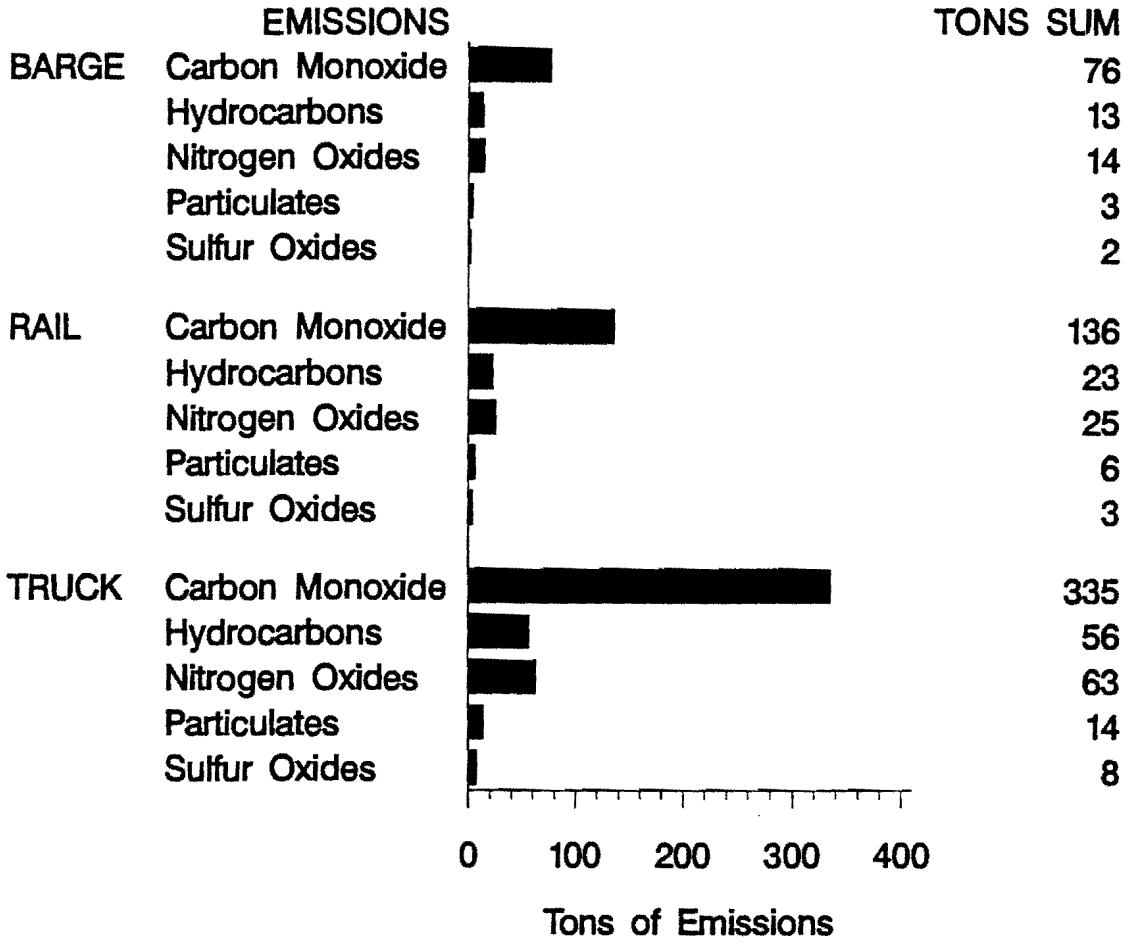
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON–MILES EFFICIENCY
BREAK POINT 575–666 / Laguna Madre



EMISSIONS (Tons)

LOW END OF TON-MILE EFFICIENCY

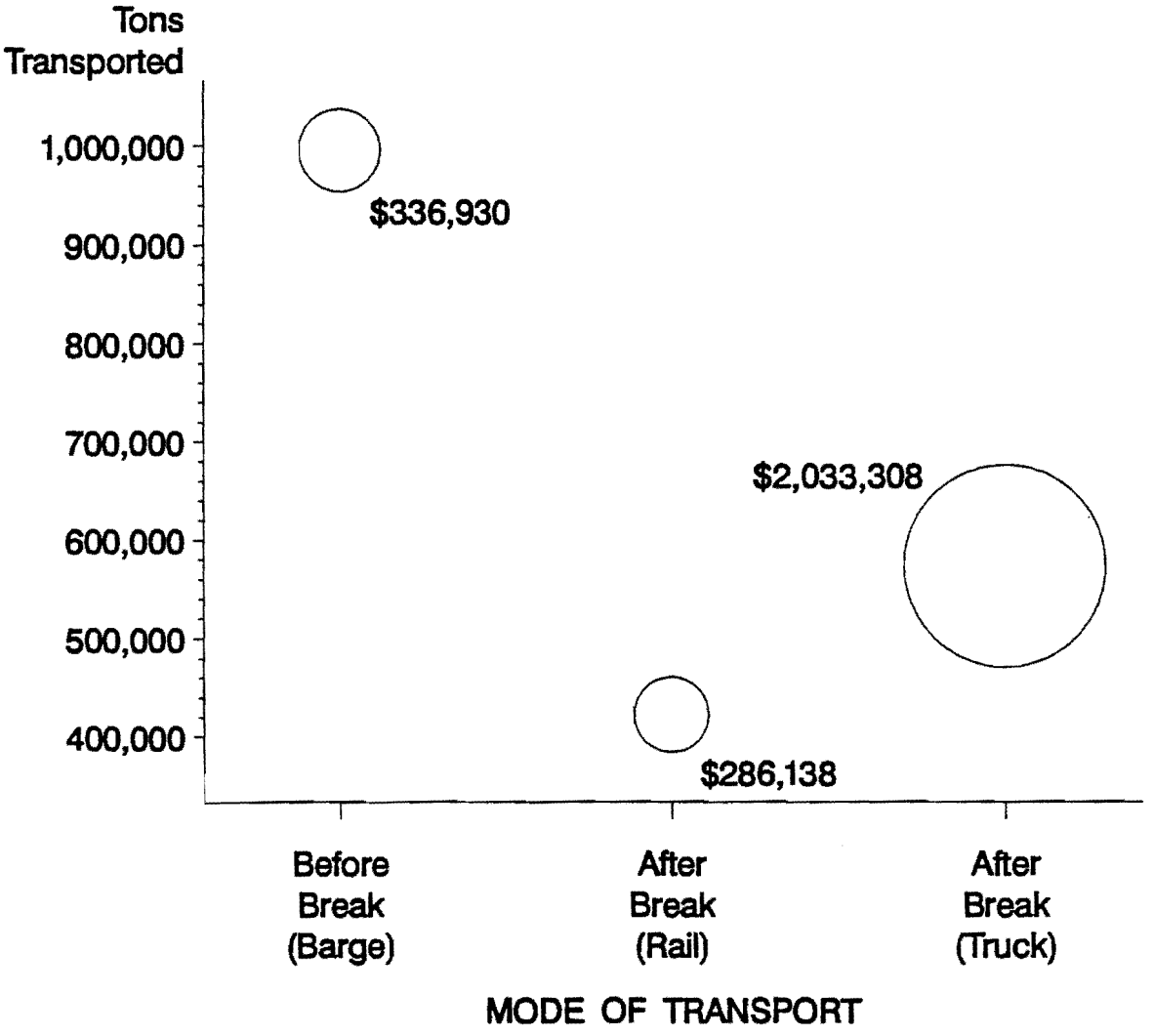
BREAK POINT 575-666 / Laguna Madre



Note: Barge emissions are pre-break
Rail & Truck emissions are post-break

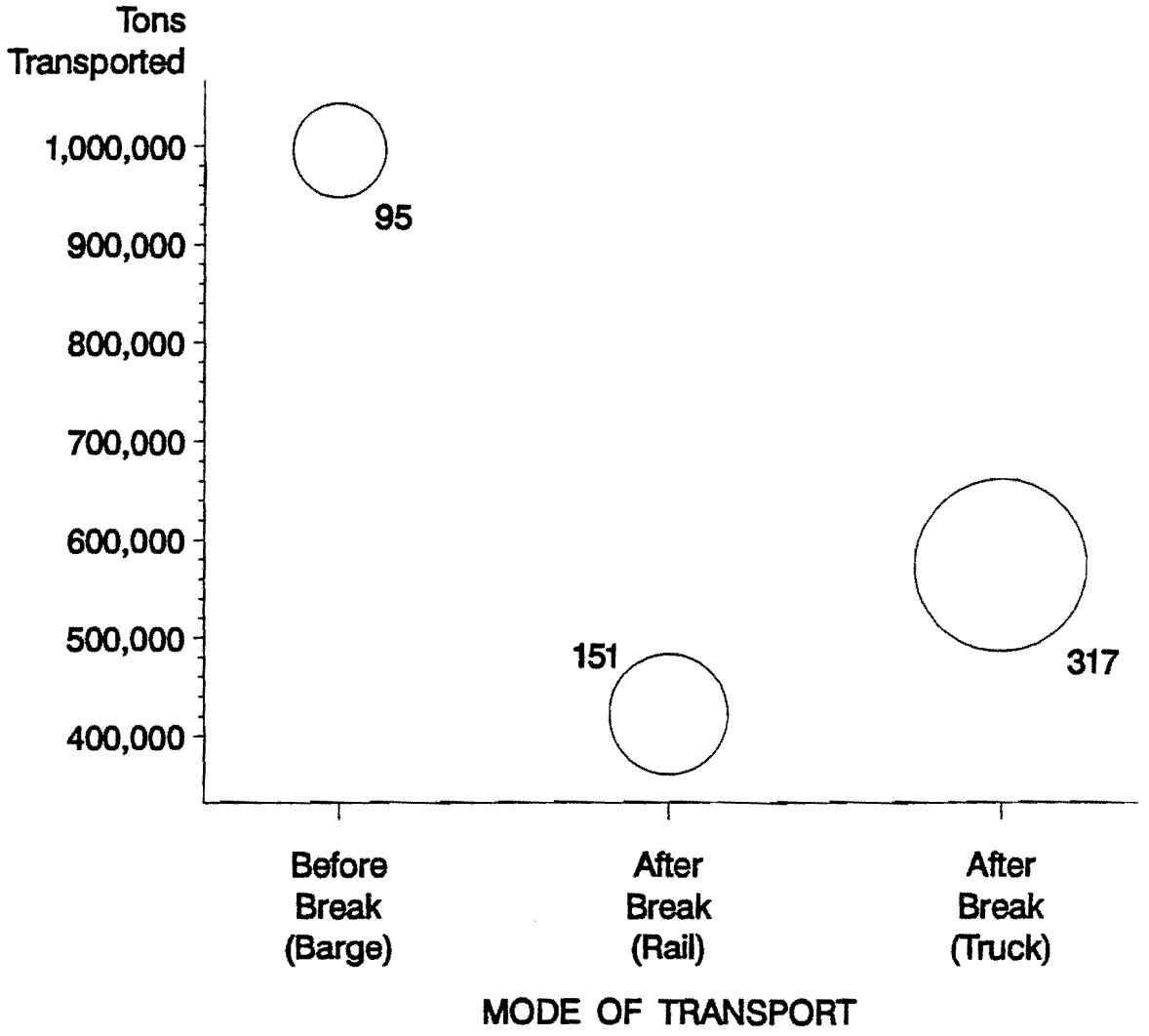
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 575–666 / Laguna Madre



EMISSIONS (Tons)

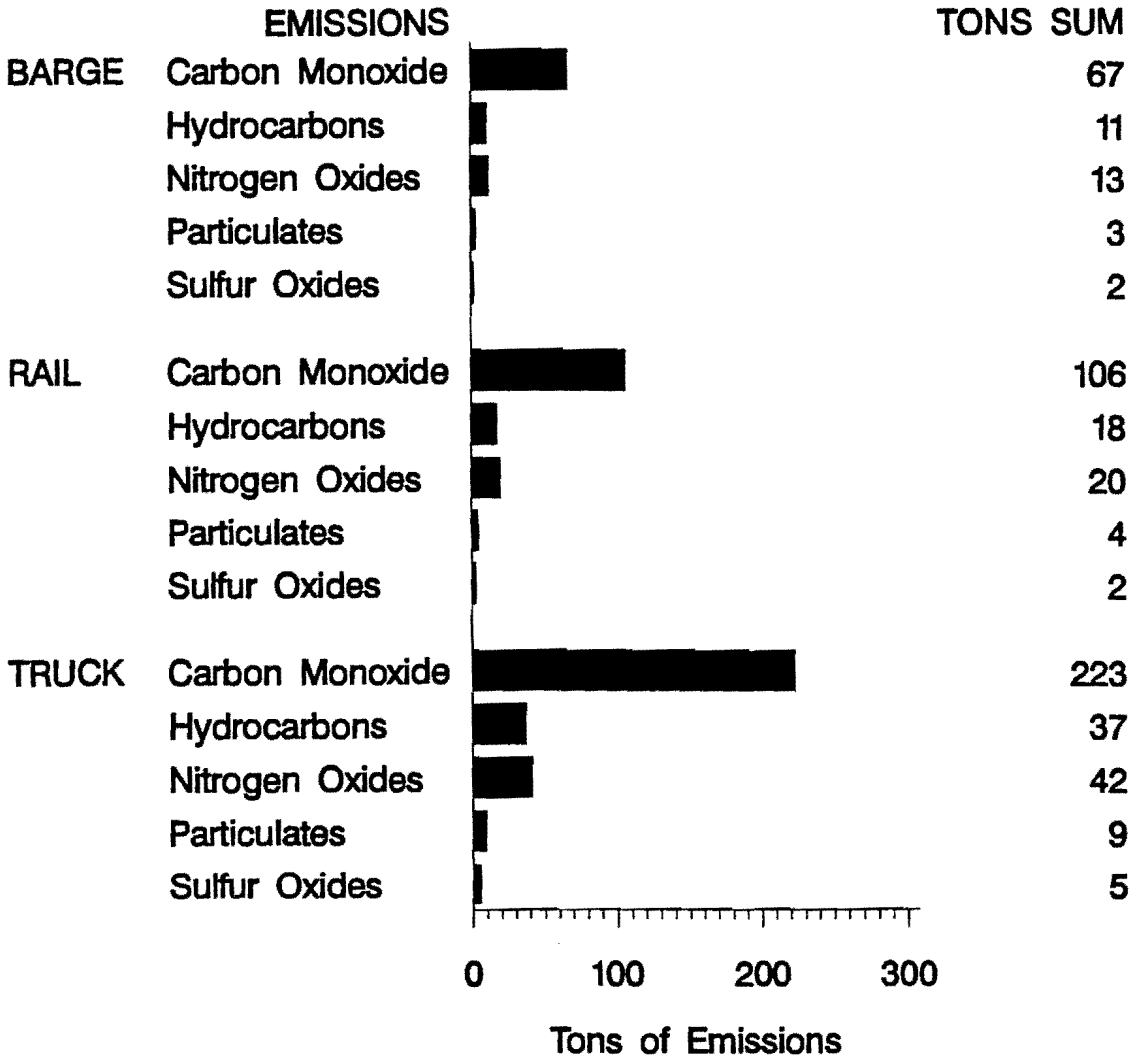
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 575–666 / Laguna Madre



EMISSIONS (Tons)

HIGH END OF TON – MILE EFFICIENCY

BREAK POINT 575 – 666 / Laguna Madre



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 575-666 / Laguna Madre

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	650	9,350	.	19,910	29,260	145,464	32,610	26,624	151,449	22.65	17.18	7.52	32.31	0.15
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
290	650	1,437	1,437	1,470	2,907	14,245	1,533	1,685	14,093	2.22	0.81	0.48	2.55	0.02
350	650	2,262	835	2,313	4,575	18,578	2,000	2,198	18,381	2.89	1.05	0.62	3.33	0.02
360	650	3,629	3,629	3,710	7,339	29,306	3,154	3,466	28,994	4.56	1.66	0.98	5.25	0.03
400	650	6,402	.	3,162	9,564	43,813	2,278	3,828	42,264	6.82	1.20	1.08	6.94	0.05
500	650	51,626	.	25,503	77,129	219,067	11,392	19,141	211,318	34.11	6.00	5.41	34.70	0.23
500	670	46,785	.	23,111	69,896	221,623	11,525	19,365	213,783	34.51	6.07	5.47	35.11	0.24
550	650	284,750	262,822	140,662	425,412	779,537	40,539	68,113	751,963	121.37	21.35	19.24	123.49	0.83
550	670	1,810	.	894	2,704	5,896	307	515	5,688	0.92	0.16	0.15	0.93	0.01
580	550	721	.	356	1,077	592	31	52	571	0.09	0.02	0.01	0.09	0.00
630	550	1,583	.	782	2,365	3,467	180	303	3,344	0.54	0.09	0.09	0.55	0.00
630	640	59	.	29	88	2	0	0	2	0.00	0.00	0.00	0.00	0.00
650	1	32,457	884	72,464	104,921	567,665	135,787	108,637	594,814	88.39	71.52	30.68	129.22	0.60
650	350	22,508	19,963	23,013	45,521	184,854	19,897	21,865	182,886	28.78	10.48	6.18	33.09	0.20
650	550	14,944	2,537	7,382	22,326	40,911	2,128	3,575	39,464	6.37	1.12	1.01	6.48	0.04
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
670	550	22,395	.	11,063	33,458	72,958	3,794	6,375	70,377	11.36	2.00	1.80	11.56	0.08
670	670	112	.	55	167	9	0	1	9	0.00	0.00	0.00	0.00	0.00
		573,606	292,108	422,213	995,819	3,049,961	366,256	381,854	3,034,364	474.88	192.91	107.85	559.94	3.24

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 575-666 / Laguna Madre

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
500	650	51,626	.	25,503	77,129	146,045	8,900	16,889	138,055	22.74	4.69	4.77	22.66	0.23
500	670	46,785	.	23,111	69,896	147,748	9,004	17,086	139,666	23.00	4.74	4.83	22.92	0.24
550	650	284,750	262,822	140,662	425,412	519,692	31,671	60,100	491,263	80.92	16.68	16.97	80.62	0.83
550	670	1,810	.	894	2,704	3,931	240	455	3,716	0.61	0.13	0.13	0.61	0.01
580	550	721	.	356	1,077	395	24	46	373	0.06	0.01	0.01	0.06	0.00
630	550	1,583	.	782	2,365	2,311	141	267	2,185	0.36	0.07	0.08	0.36	0.00
630	640	59	.	29	88	1	0	0	1	0.00	0.00	0.00	0.00	0.00
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
650	550	14,944	2,537	7,382	22,326	27,274	1,662	3,154	25,782	4.25	0.88	0.89	4.23	0.04
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
670	550	22,395	.	11,063	33,458	48,639	2,964	5,625	45,978	7.57	1.56	1.59	7.55	0.08
670	670	112	.	55	167	6	0	1	6	0.00	0.00	0.00	0.00	0.00
		573,606	292,108	422,213	995,819	2,033,308	286,138	336,930	1,982,515	316.59	150.71	95.16	372.14	3.24

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
FM1495	58701	6,402	.	2,342,909	20.00	19.65	1.75	3.4	3.4	3,600	3,601	112.50	112.55	0.0
FM1764	160701	9,234	542	4,149,703	14.52	14.48	0.29	4.5	4.5	24,000	24,001	375.00	375.04	0.2
FM1764	160702	6,156	362	4,149,703	20.00	19.94	0.29	3.0	3.0	24,000	24,001	750.00	750.05	0.5
FM360	52706	6,402	.	5,014,448	20.00	19.68	1.58	9.2	9.3	1,500	1,501	46.88	46.93	0.0
FM523	100301	635	.	1,867,826	20.00	19.98	0.10	3.2	3.2	6,625	6,625	207.03	207.04	0.1
I45	11004	8,625	507	12,973,790	6.95	6.94	0.04	11.4	11.4	62,000	62,001	968.75	968.79	0.4
I45	11005	7,593	446	5,528,218	2.18	2.18	0.03	10.0	10.0	95,667	95,668	1494.8	1494.8	0.6
I45	67508	13,160	773	15,422,523	12.91	12.89	0.10	17.4	17.4	26,000	26,002	406.25	406.30	0.1
S134	37602	3,783	3,176	7,009,427	20.00	19.98	0.12	6.5	6.5	15,900	15,901	496.88	496.91	0.3
S146	38905	3,589	3,014	2,496,949	9.75	9.73	0.13	6.2	6.2	15,700	15,700	245.31	245.33	0.1
S146	38906	4,377	3,675	2,496,949	10.65	10.63	0.17	7.5	7.5	11,786	11,787	184.16	184.17	0.1
S146	38912	2,793	2,346	2,496,949	9.98	9.97	0.10	4.8	4.8	19,700	19,700	307.81	307.82	0.2
S197	38911	11,107	652	3,294,557	20.00	19.76	1.18	5.4	5.4	5,833	5,834	182.28	182.37	0.1
S288	59804	2,429	.	2,655,275	6.85	6.84	0.05	12.2	12.2	12,600	12,600	196.88	196.89	0.1
S330	50807	4,656	3,909	2,496,949	4.54	4.53	0.08	8.0	8.0	26,000	26,001	406.25	406.27	0.2
S332	58601	1,615	.	2,057,202	11.46	11.46	0.08	8.1	8.1	8,767	8,767	273.97	273.98	0.2
S341	62801	12,312	723	4,149,703	20.00	19.73	1.35	6.0	6.0	5,100	5,102	79.69	79.74	0.0
S348	68601	22,983	1,350	7,909,001	19.32	19.22	0.49	11.2	11.2	14,500	14,503	453.13	453.32	0.3
S36	18705	6,402	.	2,535,398	13.80	13.75	0.31	15.1	15.1	4,600	4,601	143.75	143.80	0.1
S36	18801	6,402	.	2,535,398	11.10	11.07	0.25	8.7	8.7	9,900	9,901	309.38	309.43	0.2
S36	18802	6,402	.	2,535,398	19.72	19.63	0.45	10.2	10.2	4,750	4,751	148.44	148.49	0.1
S36	18803	6,402	.	3,516,385	20.00	19.93	0.36	10.2	10.2	6,013	6,014	187.91	187.96	0.1
S36	18804	6,402	.	3,516,385	16.53	16.48	0.26	7.4	7.4	11,367	11,368	355.22	355.27	0.2
S36	18805	6,402	.	3,516,385	20.00	19.91	0.45	8.1	8.1	6,000	6,001	187.50	187.55	0.1
S36	18806	6,402	.	3,516,385	20.00	19.92	0.42	7.7	7.7	6,820	6,821	213.13	213.18	0.1
S87	37606	61,791	3,629	6,504,983	20.00	19.13	4.37	9.2	9.3	5,000	5,008	156.25	156.76	0.1
US59	17707	142,421	26,749	4,149,703	2.37	2.36	0.73	6.2	6.3	106,000	106,019	1656.3	1656.8	0.7
US75	5104	61,791	3,629	6,011,120	10.14	10.04	0.93	6.2	6.2	36,000	36,008	562.50	562.76	0.2
US90A	2710	2,879	169	3,715,330	13.96	13.94	0.10	3.8	3.8	26,480	26,480	413.75	413.76	0.1

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITI
US59	8905	148,822	26,749	2,112,832	2.78	2.73	1.73	21.1	21.3	13,600	13,620	212.50	213.12	0.1
US59	8904	148,822	26,749	2,112,832	2.78	2.73	1.73	21.4	21.5	13,400	13,420	209.38	209.99	0.1
US59	8903	148,822	26,749	2,112,832	2.39	2.35	1.49	21.8	21.9	15,350	15,370	239.84	240.46	0.1
US59	8901	148,822	26,749	5,841,189	11.03	10.76	2.47	13.6	13.7	14,767	14,787	230.73	231.35	0.1
US59	8804	247,233	26,749	5,841,189	11.42	10.94	4.17	15.0	15.2	12,867	12,900	201.05	202.07	0.0

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre

DISTRICT=HOUSTON DISTRICT

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
1495	58701	6,402	.	2,342,909	20.00	19.65	1.75	3.4	3.4	3,600	3,601	112.50	112.55	0.08
1764	160701	9,234	542	4,149,703	14.52	14.48	0.29	4.5	4.5	24,000	24,001	375.00	375.04	0.27
1764	160702	6,156	362	4,149,703	20.00	19.94	0.29	3.0	3.0	24,000	24,001	750.00	750.05	0.54
360	52706	6,402	.	5,014,448	20.00	19.68	1.58	9.2	9.3	1,500	1,501	46.88	46.93	0.03
523	100301	635	.	1,867,826	20.00	19.98	0.10	3.2	3.2	6,625	6,625	207.03	207.04	0.15
5	11004	8,625	507	12,973,790	6.95	6.94	0.04	11.4	11.4	62,000	62,001	968.75	968.79	0.44
5	11005	7,593	446	5,528,218	2.18	2.18	0.03	10.0	10.0	95,667	95,668	1494.8	1494.8	0.68
5	67508	13,160	773	15,422,523	12.91	12.89	0.10	17.4	17.4	26,000	26,002	406.25	406.30	0.18
34	37602	3,783	3,176	7,009,427	20.00	19.98	0.12	6.5	6.5	15,900	15,901	496.88	496.91	0.35
46	38905	3,589	3,014	2,496,949	9.75	9.73	0.13	6.2	6.2	15,700	15,700	245.31	245.33	0.18
46	38906	4,377	3,675	2,496,949	10.65	10.63	0.17	7.5	7.5	11,786	11,787	184.16	184.17	0.13
46	38912	2,793	2,346	2,496,949	9.98	9.97	0.10	4.8	4.8	19,700	19,700	307.81	307.82	0.22
97	38911	11,107	652	3,294,557	20.00	19.76	1.18	5.4	5.4	5,833	5,834	182.28	182.37	0.13
88	59804	2,429	.	2,655,275	6.85	6.84	0.05	12.2	12.2	12,600	12,600	196.88	196.89	0.14
30	50807	4,656	3,909	2,496,949	4.54	4.53	0.08	8.0	8.0	26,000	26,001	406.25	406.27	0.29
32	58601	1,615	.	2,057,202	11.46	11.46	0.08	8.1	8.1	8,767	8,767	273.97	273.98	0.20
41	62801	12,312	723	4,149,703	20.00	19.73	1.35	6.0	6.0	5,100	5,102	79.69	79.74	0.06
48	68601	22,983	1,350	7,909,001	19.32	19.22	0.49	11.2	11.2	14,500	14,503	453.13	453.32	0.32
6	18705	6,402	.	2,535,398	13.80	13.75	0.31	15.1	15.1	4,600	4,601	143.75	143.80	0.10
6	18801	6,402	.	2,535,398	11.10	11.07	0.25	8.7	8.7	9,900	9,901	309.38	309.43	0.22
6	18802	6,402	.	2,535,398	19.72	19.63	0.45	10.2	10.2	4,750	4,751	148.44	148.49	0.11
6	18803	6,402	.	3,516,385	20.00	19.93	0.36	10.2	10.2	6,013	6,014	187.91	187.96	0.13
6	18804	6,402	.	3,516,385	16.53	16.48	0.26	7.4	7.4	11,367	11,368	355.22	355.27	0.25
6	18805	6,402	.	3,516,385	20.00	19.91	0.45	8.1	8.1	6,000	6,001	187.50	187.55	0.13
6	18806	6,402	.	3,516,385	20.00	19.92	0.42	7.7	7.7	6,820	6,821	213.13	213.18	0.15
7	37606	61,791	3,629	6,504,983	20.00	19.13	4.37	9.2	9.3	5,000	5,008	156.25	156.76	0.11
69	17707	142,421	26,749	4,149,703	2.37	2.36	0.73	6.2	6.3	106,000	106,019	1656.3	1656.8	0.75
75	5104	61,791	3,629	6,011,120	10.14	10.04	0.93	6.2	6.2	36,000	36,008	562.50	562.76	0.26
90A	2710	2,879	169	3,715,330	13.96	13.94	0.10	3.8	3.8	26,480	26,480	413.75	413.76	0.19

DISTRICT=YOAKUM DISTRICT

GHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
59	8905	148,822	26,749	2,112,832	2.78	2.73	1.73	21.1	21.3	13,600	13,620	212.50	213.12	0.10
59	8904	148,822	26,749	2,112,832	2.78	2.73	1.73	21.4	21.5	13,400	13,420	209.38	209.99	0.10
59	8903	148,822	26,749	2,112,832	2.39	2.35	1.49	21.8	21.9	15,350	15,370	239.84	240.46	0.11
59	8901	148,822	26,749	5,841,189	11.03	10.76	2.47	13.6	13.7	14,767	14,787	230.73	231.35	0.11
59	8804	247,233	26,749	5,841,189	11.42	10.94	4.17	15.0	15.2	12,867	12,900	201.05	202.07	0.09

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM70	155803	326,202	265,359	1,470,362	20.00	11.17	44.15	6.9	8.8	2,033	2,076	63.53	66.24	0.05
FM771	111501	721	.	792,517	20.00	19.92	0.39	5.8	5.8	1,100	1,100	34.38	34.38	0.02
S286	32601	326,202	265,359	2,244,183	20.00	15.38	23.11	5.2	5.7	7,183	7,226	224.47	227.17	0.16
S286	32603	326,202	265,359	1,023,353	1.38	1.32	3.79	3.9	4.0	71,667	71,710	746.53	747.43	0.53
S358	61701	326,202	265,359	2,810,157	5.12	4.86	5.03	4.3	4.4	48,638	48,681	506.65	507.55	0.36
US59	8803	24,770	20,799	15,172,373	20.00	19.84	0.82	18.4	18.5	5,550	5,553	173.44	173.64	0.08
US59	8802	24,770	20,799	15,172,373	20.00	19.83	0.86	19.3	19.3	5,043	5,046	157.59	157.80	0.07
US59	8801	24,770	20,799	5,464,655	20.00	19.80	0.98	18.5	18.5	4,600	4,603	143.75	143.96	0.07
US77	37102	222,463	5,951	2,129,917	4.02	3.87	3.64	19.9	20.2	10,043	10,073	156.92	157.84	0.07
US77	37103	222,463	5,951	2,129,917	20.00	13.83	30.85	18.8	21.4	900	930	14.06	14.98	0.01
US77	37104	247,233	26,749	2,483,647	6.83	6.43	5.76	18.8	19.2	7,300	7,333	114.06	115.09	0.05
US77	37203	247,233	26,749	2,483,647	15.17	13.36	11.96	7.8	8.2	7,933	7,966	123.95	124.98	0.06
US77	37201	247,233	26,749	2,483,647	4.38	4.21	3.77	16.2	16.4	13,200	13,233	206.25	207.27	0.09
US77	37301	247,233	26,749	1,167,359	1.42	1.38	2.63	16.0	16.1	19,475	19,508	304.30	305.32	0.14
US77	10202	573,436	292,108	1,167,359	1.52	1.43	6.31	20.7	21.1	13,975	14,051	218.36	220.74	0.10
US77	10203	573,436	292,108	1,167,359	1.33	1.26	5.55	20.4	20.7	16,300	16,376	254.69	257.06	0.12
US77	10204	573,436	292,108	2,483,647	3.34	3.12	6.48	22.7	23.2	12,386	12,462	193.53	195.91	0.09
US77	32701	573,436	292,108	2,483,647	4.78	4.35	9.03	28.9	29.7	6,800	6,876	106.25	108.63	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	55,859	2,322	4,790,983	2.67	2.66	0.28	26.5	26.6	26,000	26,007	406.25	406.48	0.18
I10	73901	55,859	2,322	4,790,983	2.55	2.54	0.26	28.9	28.9	25,000	25,007	390.63	390.86	0.18
I10	50803	55,859	2,322	4,790,983	2.56	2.55	0.27	26.2	26.2	27,500	27,507	429.69	429.92	0.20
I10	50802	55,859	2,322	4,790,983	2.56	2.55	0.26	23.8	23.8	30,333	30,340	473.95	474.18	0.22

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	429,364	292,108	1,673,506	20.00	13.68	31.59	10.9	12.6	2,900	2,957	90.63	94.18	0.07
FM2925	63003	429,364	292,108	1,673,506	20.00	4.73	76.36	7.7	15.9	587	644	18.34	21.90	0.02
FM508	34204	429,364	292,108	1,673,506	20.00	9.88	50.59	6.6	9.0	2,160	2,217	67.50	71.06	0.05

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre

DISTRICT=PHARR DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICA
FM606	43306	1,583	.	1,155,285	20.00	18.91	5.44	8.5	8.7	110	110	3.44	3.45	0.00
S100	33102	141,768	.	1,673,506	4.04	3.92	2.99	10.8	10.9	14,500	14,519	453.13	454.30	0.32
S186	43304	1,583	.	2,201,880	20.00	19.86	0.68	6.2	6.2	1,287	1,287	40.22	40.23	0.03
S48	22005	141,768	.	3,096,382	16.69	15.65	6.24	4.7	4.8	15,657	15,676	244.64	245.23	0.18
US77	32702	572,715	292,108	5,006,733	9.84	8.94	9.20	29.6	30.4	6,500	6,576	101.56	103.94	0.05
US77	32703	572,715	292,108	5,006,733	10.24	9.26	9.53	30.3	31.2	6,100	6,176	95.31	97.69	0.04
US77	32704	572,715	292,108	5,006,733	10.38	9.37	9.65	30.4	31.3	6,000	6,076	93.75	96.12	0.04
US77	32705	572,715	292,108	5,006,733	9.39	8.56	8.81	30.1	30.9	6,700	6,776	104.69	107.06	0.05
US77	32710	571,132	292,108	1,951,437	3.48	3.19	8.39	25.6	26.3	8,287	8,363	129.48	131.85	0.06
US77	32708	571,132	292,108	1,951,437	13.66	10.05	26.45	5.4	6.1	10,000	10,076	104.17	105.74	0.05
US77	3907	571,132	292,108	1,951,437	1.14	1.11	2.91	23.2	23.4	27,920	27,996	436.25	438.62	0.20
US77	3908	141,768	.	1,951,437	2.82	2.76	1.81	11.8	11.9	22,200	22,219	346.88	347.46	0.16
US77	3909	141,768	.	1,951,437	1.99	1.97	1.28	11.8	11.9	31,400	31,419	490.63	491.21	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 575-666 / Laguna Madre

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	650	5,610	.	11,946	17,556	87,278	19,566	15,975	90,870	13.59	10.31	4.51	19.38	0.09
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
290	650	862	862	882	1,744	8,547	920	1,011	8,456	1.33	0.48	0.29	1.53	0.01
350	650	1,357	501	1,388	2,745	11,147	1,200	1,319	11,028	1.74	0.63	0.37	2.00	0.01
360	650	2,177	2,177	2,226	4,403	17,584	1,893	2,080	17,396	2.74	1.00	0.59	3.15	0.02
400	650	3,841	.	1,897	5,738	26,288	1,367	2,297	25,358	4.09	0.72	0.65	4.16	0.03
500	650	30,976	.	15,302	46,277	131,440	6,835	11,485	126,791	20.47	3.60	3.24	20.82	0.14
500	670	28,071	.	13,867	41,938	132,974	6,915	11,619	128,270	20.70	3.64	3.28	21.06	0.14
550	650	170,850	157,693	84,397	255,247	467,722	24,323	40,868	451,178	72.82	12.81	11.54	74.09	0.50
550	670	1,086	.	536	1,622	3,538	184	309	3,413	0.55	0.10	0.09	0.56	0.00
580	550	433	.	214	646	355	18	31	343	0.06	0.01	0.01	0.06	0.00
630	550	950	.	469	1,419	2,080	108	182	2,007	0.32	0.06	0.05	0.33	0.00
630	640	35	.	17	53	1	0	0	1	0.00	0.00	0.00	0.00	0.00
650	1	19,474	531	43,478	62,953	340,599	81,472	65,182	356,889	53.03	42.91	18.41	77.53	0.36
650	350	13,505	11,978	13,808	27,313	110,913	11,938	13,119	109,732	17.27	6.29	3.71	19.85	0.12
650	550	8,966	1,522	4,429	13,396	24,546	1,277	2,145	23,678	3.82	0.67	0.61	3.89	0.03
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
670	550	13,437	.	6,638	20,075	43,775	2,276	3,825	42,226	6.82	1.20	1.08	6.93	0.05
670	670	67	.	33	100	6	0	0	5	0.00	0.00	0.00	0.00	0.00
		344,164	175,265	253,328	597,491	1,829,977	219,754	229,112	1,820,618	284.93	115.75	64.71	335.97	1.94

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 575-666 / Laguna Madre

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	650	9,350	.	19,910	29,260	96,976	25,477	23,492	98,960	15.10	13.42	6.64	21.88	0.15
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
290	650	1,437	1,437	1,470	2,907	9,496	1,198	1,487	9,208	1.48	0.63	0.42	1.69	0.02
350	650	2,262	835	2,313	4,575	12,386	1,562	1,939	12,009	1.93	0.82	0.55	2.20	0.02
360	650	3,629	3,629	3,710	7,339	19,537	2,464	3,059	18,943	3.04	1.30	0.86	3.48	0.03
400	650	6,402	.	3,162	9,564	29,209	1,780	3,378	27,611	4.55	0.94	0.95	4.53	0.05
500	650	51,626	.	25,503	77,129	146,045	8,900	16,889	138,055	22.74	4.69	4.77	22.66	0.23
500	670	46,785	.	23,111	69,896	147,748	9,004	17,086	139,666	23.00	4.74	4.83	22.92	0.24
550	650	284,750	262,822	140,662	425,412	519,692	31,671	60,100	491,263	80.92	16.68	16.97	80.62	0.83
550	670	1,810	.	894	2,704	3,931	240	455	3,716	0.61	0.13	0.13	0.61	0.01
580	550	721	.	356	1,077	395	24	46	373	0.06	0.01	0.01	0.06	0.00
630	550	1,583	.	782	2,365	2,311	141	267	2,185	0.36	0.07	0.08	0.36	0.00
630	640	59	.	29	88	1	0	0	1	0.00	0.00	0.00	0.00	0.00
650	1	32,457	884	72,464	104,921	378,443	106,083	95,856	388,670	58.92	55.88	27.07	87.73	0.60
650	350	22,508	19,963	23,013	45,521	123,236	15,545	19,293	119,488	19.19	8.19	5.45	21.93	0.20
650	550	14,944	2,537	7,382	22,326	27,274	1,662	3,154	25,782	4.25	0.88	0.89	4.23	0.04
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
670	550	22,395	.	11,063	33,458	48,639	2,964	5,625	45,978	7.57	1.56	1.59	7.55	0.08
670	670	112	.	55	167	6	0	1	6	0.00	0.00	0.00	0.00	0.00
		573,606	292,108	422,213	995,819	2,033,308	286,138	336,930	1,982,515	316.59	150.71	95.16	372.14	3.24

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1495	58701	3,841	.	2,342,909	20.00	19.79	1.06	3.4	3.4	3,600	3,601	112.50	112.53	0.08
FM1764	160701	5,540	325	4,149,703	14.52	14.50	0.17	4.5	4.5	24,000	24,001	375.00	375.02	0.27
FM1764	160702	3,694	217	4,149,703	20.00	19.97	0.17	3.0	3.0	24,000	24,000	750.00	750.03	0.54
FM360	52706	3,841	.	5,014,448	20.00	19.81	0.95	9.2	9.2	1,500	1,501	46.88	46.91	0.03
FM523	100301	381	.	1,867,826	20.00	19.99	0.06	3.2	3.2	6,625	6,625	207.03	207.03	0.15
I45	11004	5,175	304	12,973,790	6.95	6.94	0.02	11.4	11.4	62,000	62,001	968.75	968.77	0.44
I45	11005	4,556	268	5,528,218	2.18	2.18	0.02	10.0	10.0	95,667	95,668	1494.8	1494.8	0.68
I45	67508	7,896	464	15,422,523	12.91	12.90	0.06	17.4	17.4	26,000	26,001	406.25	406.28	0.18
S134	37602	2,270	1,906	7,009,427	20.00	19.99	0.07	6.5	6.5	15,900	15,900	496.88	496.89	0.35
S146	38905	2,154	1,808	2,496,949	9.75	9.74	0.08	6.2	6.2	15,700	15,700	245.31	245.32	0.18
S146	38906	2,626	2,205	2,496,949	10.65	10.64	0.10	7.5	7.5	11,786	11,786	184.16	184.17	0.13
S146	38912	1,676	1,407	2,496,949	9.98	9.97	0.06	4.8	4.8	19,700	19,700	307.81	307.82	0.22
S197	38911	6,664	391	3,294,557	20.00	19.86	0.71	5.4	5.4	5,833	5,834	182.28	182.34	0.13
S288	59804	1,457	.	2,655,275	6.85	6.85	0.03	12.2	12.2	12,600	12,600	196.88	196.88	0.14
S330	50807	2,793	2,346	2,496,949	4.54	4.54	0.05	8.0	8.0	26,000	26,000	406.25	406.26	0.29
S332	58601	969	.	2,057,202	11.46	11.46	0.05	8.1	8.1	8,767	8,767	273.97	273.98	0.20
S341	62801	7,387	434	4,149,703	20.00	19.84	0.81	6.0	6.0	5,100	5,101	79.69	79.72	0.06
S348	68601	13,790	810	7,909,001	19.32	19.26	0.29	11.2	11.2	14,500	14,502	453.13	453.24	0.32
S36	18705	3,841	.	2,535,398	13.80	13.77	0.19	15.1	15.1	4,600	4,601	143.75	143.78	0.10
S36	18801	3,841	.	2,535,398	11.10	11.08	0.15	8.7	8.7	9,900	9,901	309.38	309.41	0.22
S36	18802	3,841	.	2,535,398	19.72	19.67	0.27	10.2	10.2	4,750	4,751	148.44	148.47	0.11
S36	18803	3,841	.	3,516,385	20.00	19.96	0.22	10.2	10.2	6,013	6,014	187.91	187.94	0.13
S36	18804	3,841	.	3,516,385	16.53	16.50	0.16	7.4	7.4	11,367	11,368	355.22	355.25	0.25
S36	18805	3,841	.	3,516,385	20.00	19.95	0.27	8.1	8.1	6,000	6,001	187.50	187.53	0.13
S36	18806	3,841	.	3,516,385	20.00	19.95	0.25	7.7	7.7	6,820	6,821	213.13	213.16	0.15
S87	37606	37,075	2,177	6,504,983	20.00	19.47	2.67	9.2	9.3	5,000	5,005	156.25	156.56	0.11
US59	17707	85,452	16,049	4,149,703	2.37	2.36	0.44	6.2	6.2	106,000	106,011	1656.3	1656.6	0.75
US75	5104	37,075	2,177	6,011,120	10.14	10.08	0.56	6.2	6.2	36,000	36,005	562.50	562.65	0.26
US90A	2710	1,727	101	3,715,330	13.96	13.95	0.06	3.8	3.8	26,480	26,480	413.75	413.76	0.19

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US59	8905	89,293	16,049	2,112,832	2.78	2.75	1.05	21.1	21.2	13,600	13,612	212.50	212.87	0.10
US59	8904	89,293	16,049	2,112,832	2.78	2.75	1.05	21.4	21.5	13,400	13,412	209.38	209.75	0.10
US59	8903	89,293	16,049	2,112,832	2.39	2.37	0.90	21.8	21.9	15,350	15,362	239.84	240.21	0.11
US59	8901	89,293	16,049	5,841,189	11.03	10.87	1.49	13.6	13.6	14,767	14,779	230.73	231.10	0.11

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre
40 PERCENT TONNAGE REDUCTION

DISTRICT=YOAKUM DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US59	8804	148,340	16,049	5,841,189	11.42	11.13	2.54	15.0	15.2	12,867	12,887	201.05	201.66	0.09

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM70	155803	195,721	159,215	1,470,362	20.00	13.57	32.17	6.9	8.1	2,033	2,059	63.53	65.15	0.05
FM771	111501	433	.	792,517	20.00	19.95	0.23	5.8	5.8	1,100	1,100	34.38	34.38	0.02
S286	32601	195,721	159,215	2,244,183	20.00	16.94	15.28	5.2	5.5	7,183	7,209	224.47	226.09	0.16
S286	32603	195,721	159,215	1,023,353	1.38	1.34	2.31	3.9	4.0	71,667	71,693	746.53	747.07	0.53
S358	61701	195,721	159,215	2,810,157	5.12	4.96	3.08	4.3	4.4	48,638	48,664	506.65	507.19	0.36
US59	8803	14,862	12,479	15,172,373	20.00	19.90	0.49	18.4	18.4	5,550	5,552	173.44	173.56	0.08
US59	8802	14,862	12,479	15,172,373	20.00	19.90	0.52	19.3	19.3	5,043	5,045	157.59	157.72	0.07
US59	8801	14,862	12,479	5,464,655	20.00	19.88	0.59	18.5	18.5	4,600	4,602	143.75	143.87	0.07
US77	37102	133,478	3,570	2,129,917	4.02	3.93	2.22	19.9	20.1	10,043	10,061	156.92	157.48	0.07
US77	37103	133,478	3,570	2,129,917	20.00	15.78	21.11	18.8	20.4	900	918	14.06	14.62	0.01
US77	37104	148,340	16,049	2,483,647	6.83	6.58	3.54	18.8	19.1	7,300	7,320	114.06	114.68	0.05
US77	37203	148,340	16,049	2,483,647	15.17	14.03	7.54	7.8	8.0	7,933	7,953	123.95	124.57	0.06
US77	37201	148,340	16,049	2,483,647	4.38	4.28	2.30	16.2	16.4	13,200	13,220	206.25	206.86	0.09
US77	37301	148,340	16,049	1,167,359	1.42	1.39	1.59	16.0	16.1	19,475	19,495	304.30	304.91	0.14
US77	10202	344,061	175,265	1,167,359	1.52	1.47	3.89	20.7	21.0	13,975	14,021	218.36	219.79	0.10
US77	10203	344,061	175,265	1,167,359	1.33	1.28	3.41	20.4	20.6	16,300	16,346	254.69	256.11	0.12
US77	10204	344,061	175,265	2,483,647	3.34	3.20	3.99	22.7	23.0	12,386	12,432	193.53	194.96	0.09
US77	32701	344,061	175,265	2,483,647	4.78	4.51	5.62	28.9	29.4	6,800	6,846	106.25	107.68	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	33,516	1,393	4,790,983	2.67	2.67	0.17	26.5	26.6	26,000	26,004	406.25	406.39	0.18
I10	73901	33,516	1,393	4,790,983	2.55	2.55	0.16	28.9	28.9	25,000	25,004	390.63	390.76	0.18
I10	50803	33,516	1,393	4,790,983	2.56	2.56	0.16	26.2	26.2	27,500	27,504	429.69	429.83	0.20
I10	50802	33,516	1,393	4,790,983	2.56	2.55	0.16	23.8	23.8	30,333	30,337	473.95	474.09	0.22

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 575-666 / Laguna Madre
40 PERCENT TONNAGE REDUCTION

DISTRICT=PHARR DISTRICT

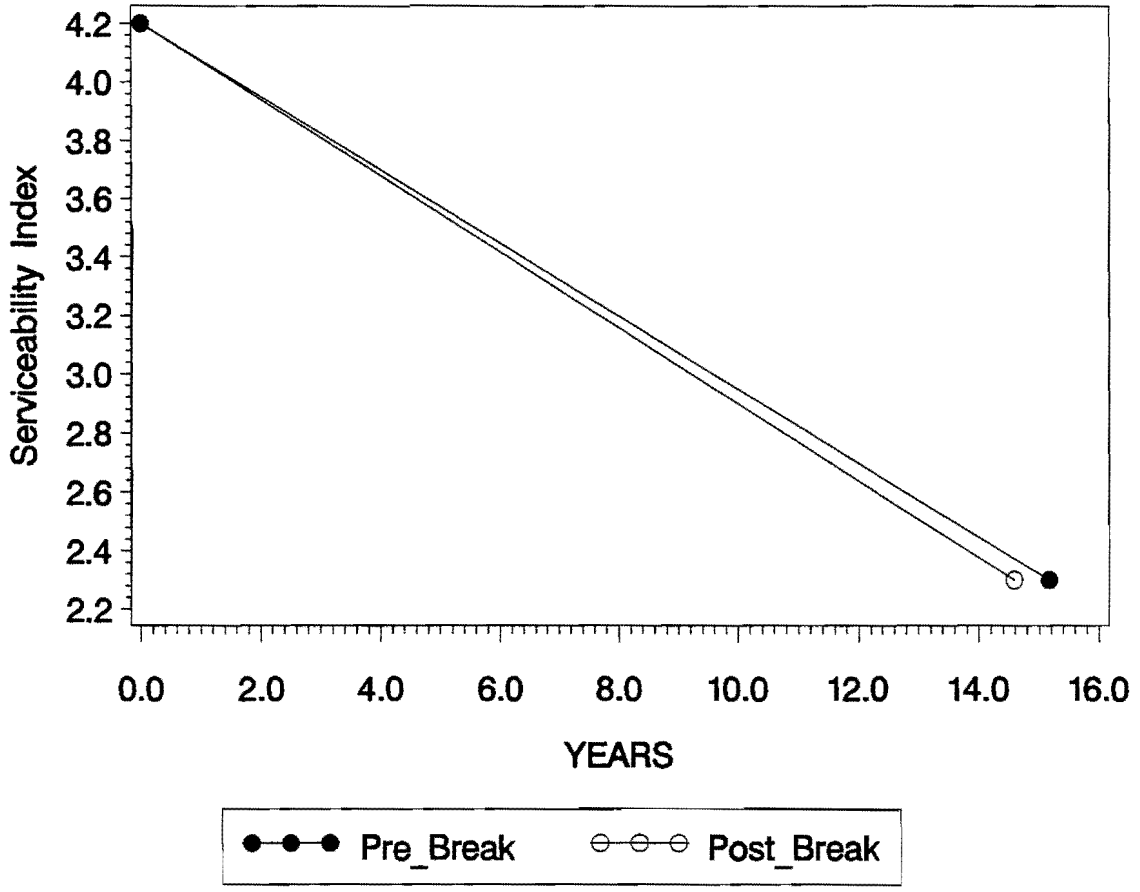
HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM106	142503	257,619	175,265	1,673,506	20.00	15.66	21.70	10.9	11.9	2,900	2,934	90.63	92.76	0.07
FM2925	63003	257,619	175,265	1,673,506	20.00	6.81	65.96	7.7	12.8	587	621	18.34	20.48	0.01
FM508	34204	257,619	175,265	1,673,506	20.00	12.39	38.06	6.6	8.1	2,160	2,194	67.50	69.64	0.05
FM606	43306	950	.	1,155,285	20.00	19.33	3.34	8.5	8.6	110	110	3.44	3.45	0.00
S100	33102	85,061	.	1,673,506	4.04	3.97	1.81	10.8	10.9	14,500	14,511	453.13	453.83	0.32
S186	43304	950	.	2,201,880	20.00	19.92	0.41	6.2	6.2	1,287	1,287	40.22	40.23	0.03
S48	22005	85,061	.	3,096,382	16.69	16.05	3.84	4.7	4.8	15,657	15,668	244.64	244.99	0.17
US77	32702	343,629	175,265	5,006,733	9.84	9.28	5.73	29.6	30.1	6,500	6,546	101.56	102.99	0.05
US77	32703	343,629	175,265	5,006,733	10.24	9.63	5.95	30.3	30.8	6,100	6,146	95.31	96.74	0.04
US77	32704	343,629	175,265	5,006,733	10.38	9.75	6.02	30.4	30.9	6,000	6,046	93.75	95.17	0.04
US77	32705	343,629	175,265	5,006,733	9.39	8.88	5.48	30.1	30.5	6,700	6,746	104.69	106.11	0.05
US77	32710	342,679	175,265	1,951,437	3.48	3.30	5.21	25.6	26.0	8,287	8,332	129.48	130.90	0.06
US77	32708	342,679	175,265	1,951,437	13.66	11.24	17.75	5.4	5.8	10,000	10,045	104.17	105.11	0.05
US77	3907	342,679	175,265	1,951,437	1.14	1.12	1.77	23.2	23.3	27,920	27,965	436.25	437.67	0.20
US77	3908	85,061	.	1,951,437	2.82	2.78	1.09	11.8	11.8	22,200	22,211	346.88	347.23	0.16
US77	3909	85,061	.	1,951,437	1.99	1.98	0.77	11.8	11.8	31,400	31,411	490.63	490.98	0.22

APPENDIX L

Port Isabel Break Range (668-670)

PAVEMENT LIFETIME

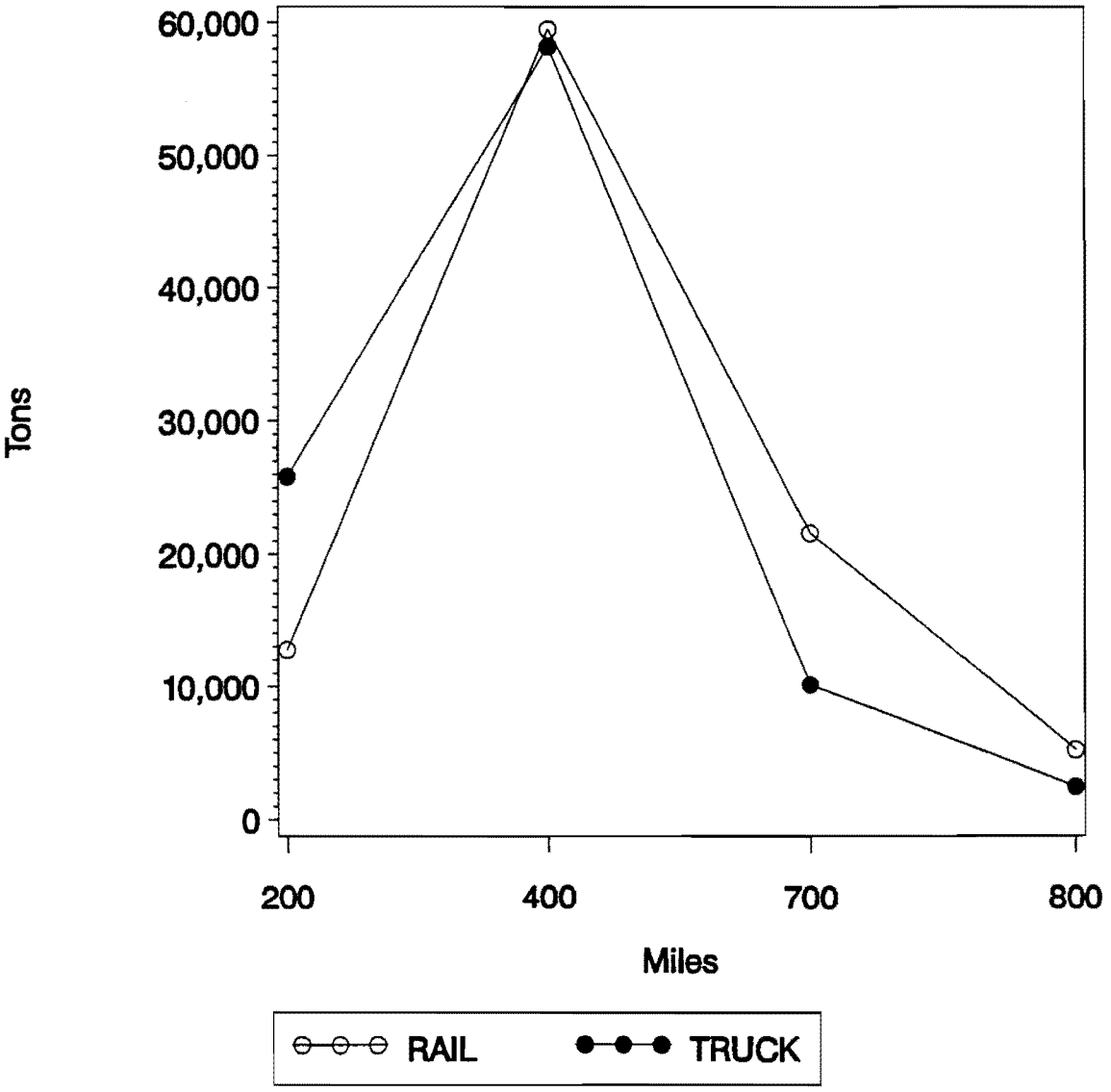
BEFORE & AFTER BREAK IN GIWW
BREAK POINT 668 – 670 / Port Isabel
HIGHWAY = US77 CONTROL/SECTION = 37203



TONS TRANSPORTED

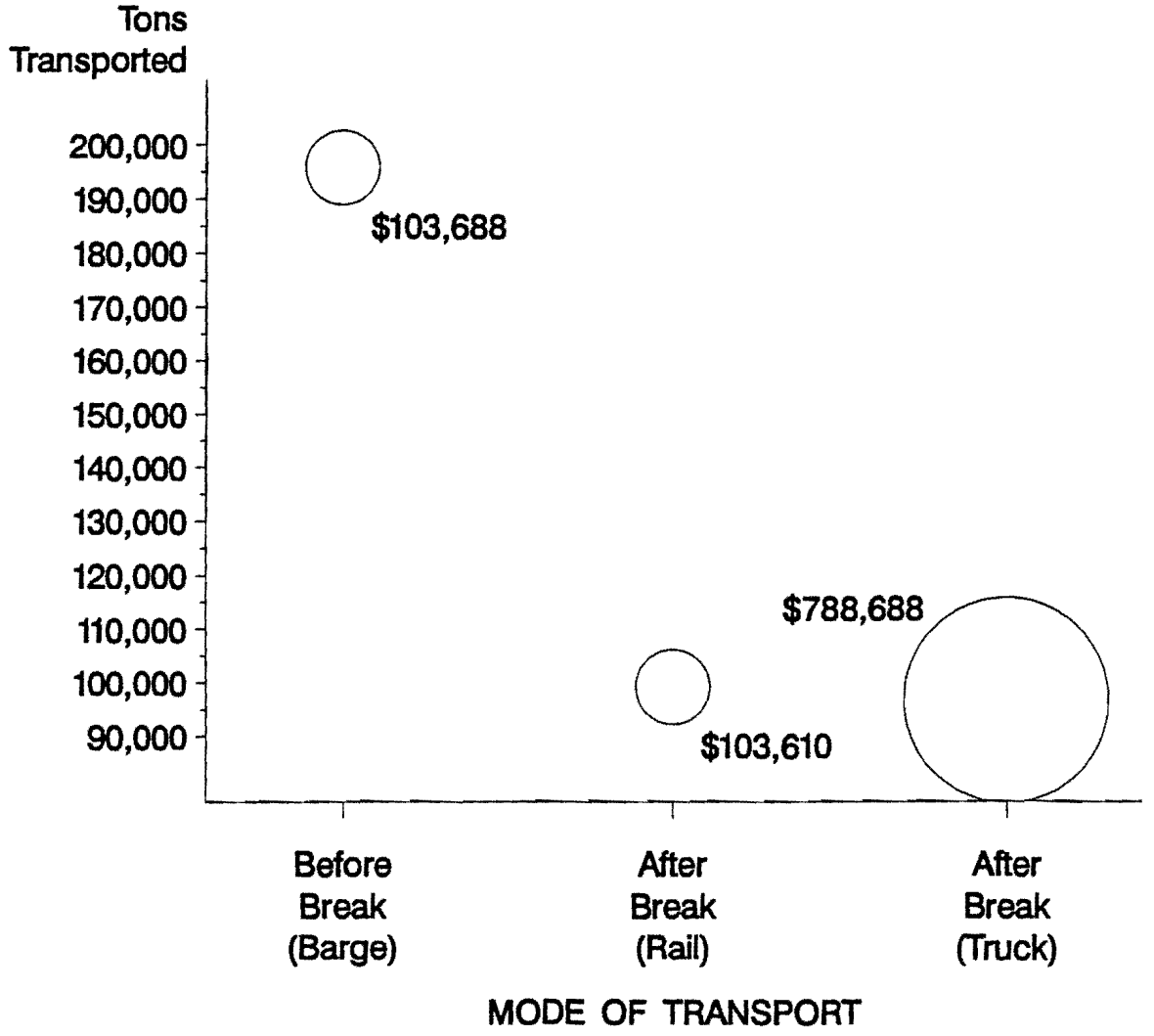
AS A FUNCTION OF DISTANCE

BREAK POINT 668 – 670 / Port Isabel



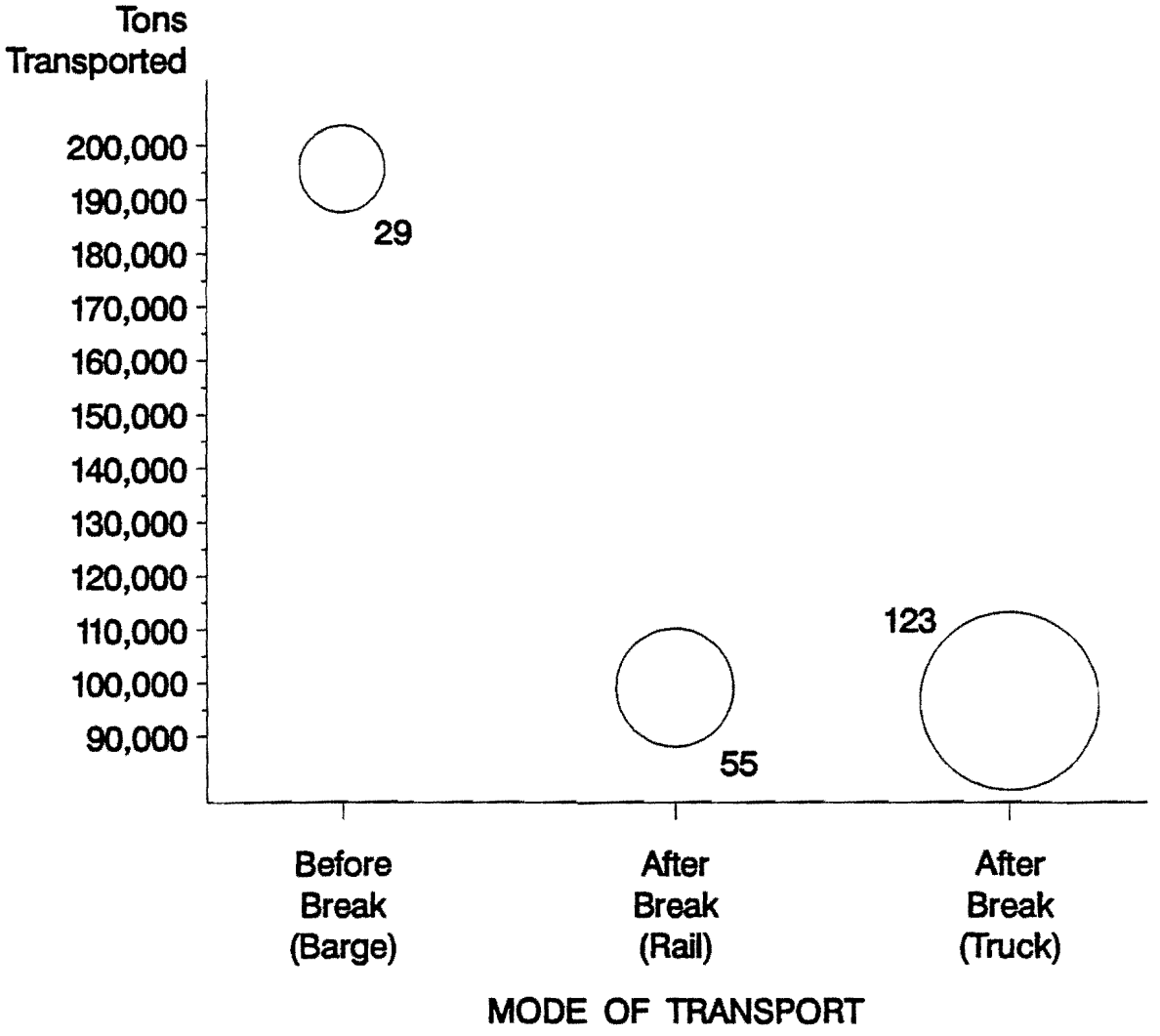
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON-MILES EFFICIENCY
BREAK POINT 668-670 / Port Isabel



EMISSIONS (Tons)

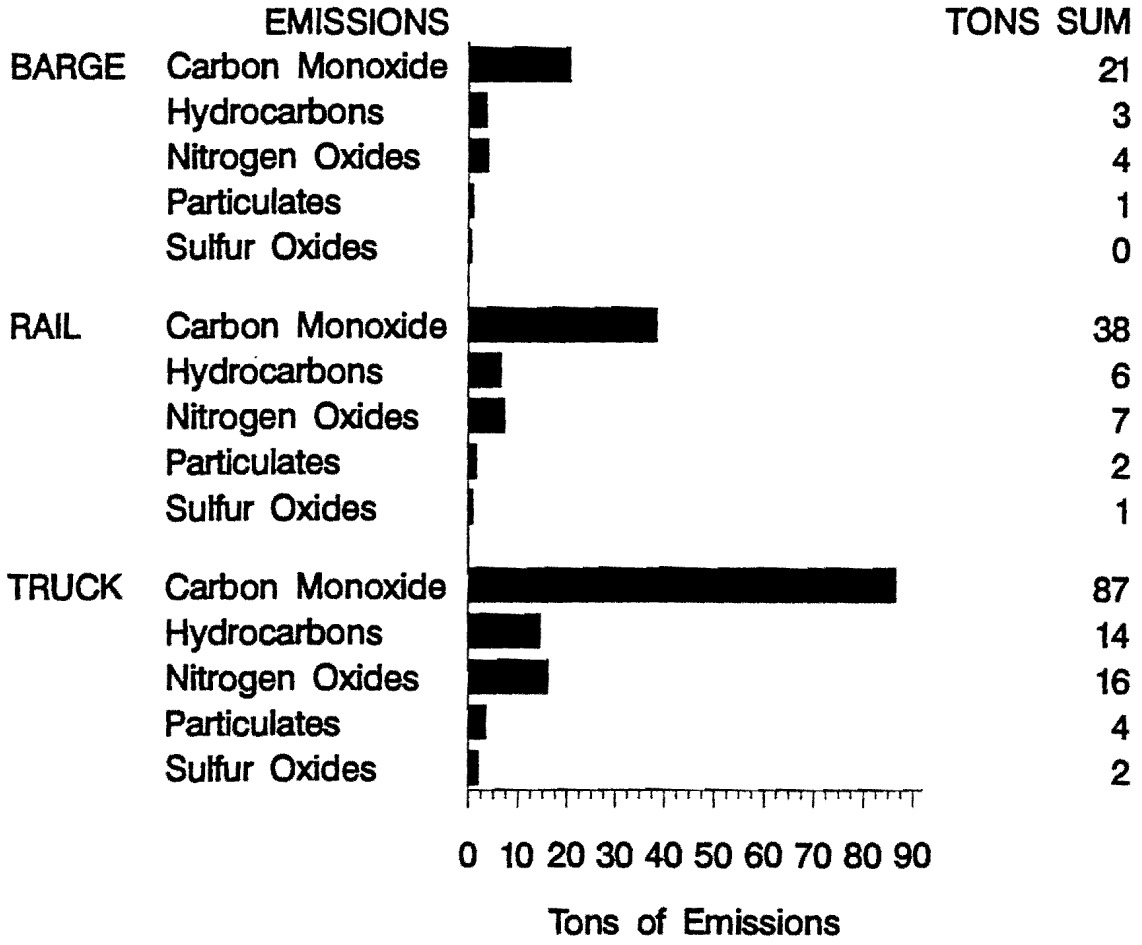
AS A FUNCTION OF TONS TRANSPORTED
LOW END OF TON – MILES EFFICIENCY
BREAK POINT 668 – 670 / Port Isabel



EMISSIONS (Tons)

LOW END OF TON-MILE EFFICIENCY

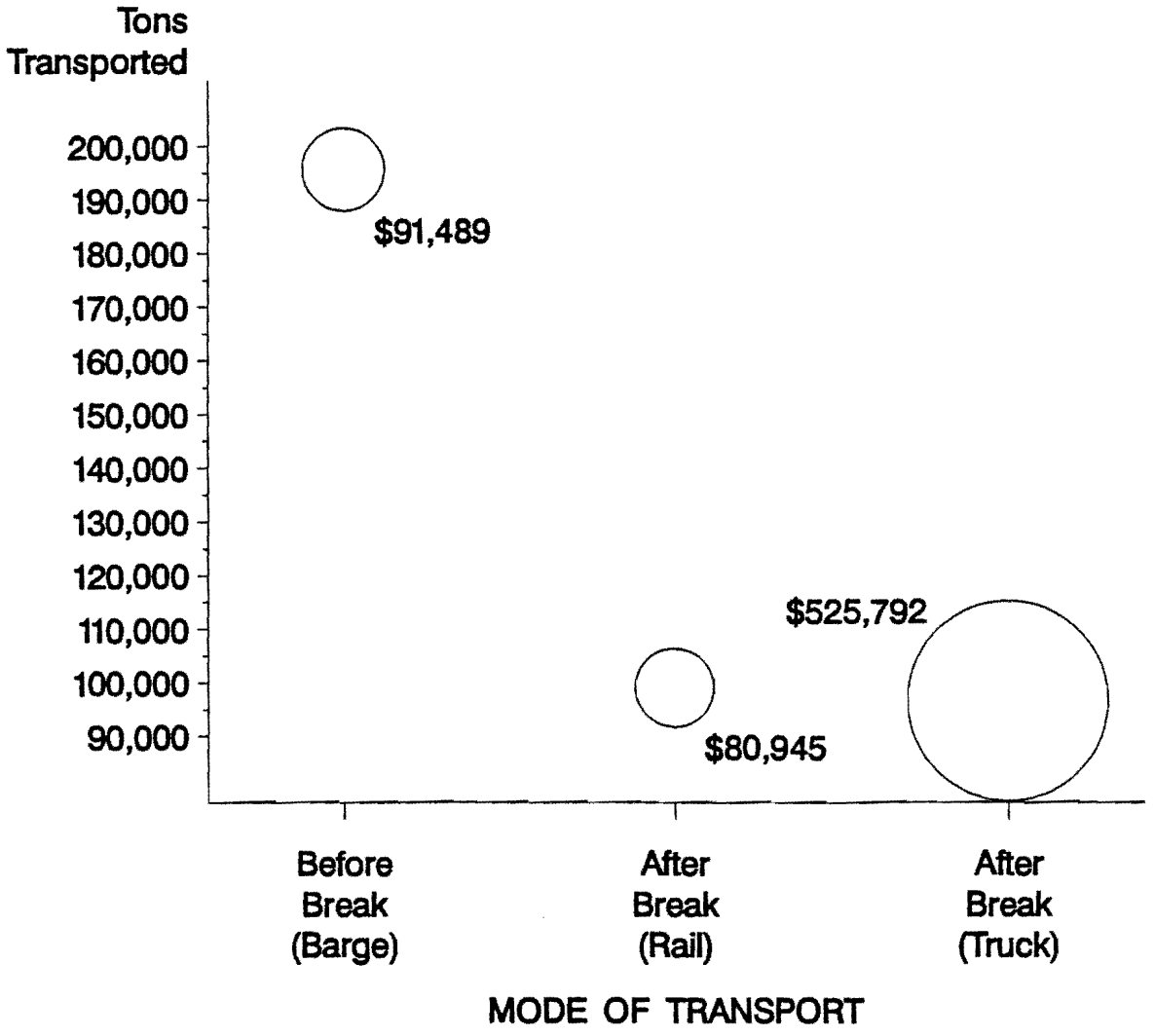
BREAK POINT 668-670 / Port Isabel



Note: Barge emissions are pre-break
Rail & Truck emissions are post-break

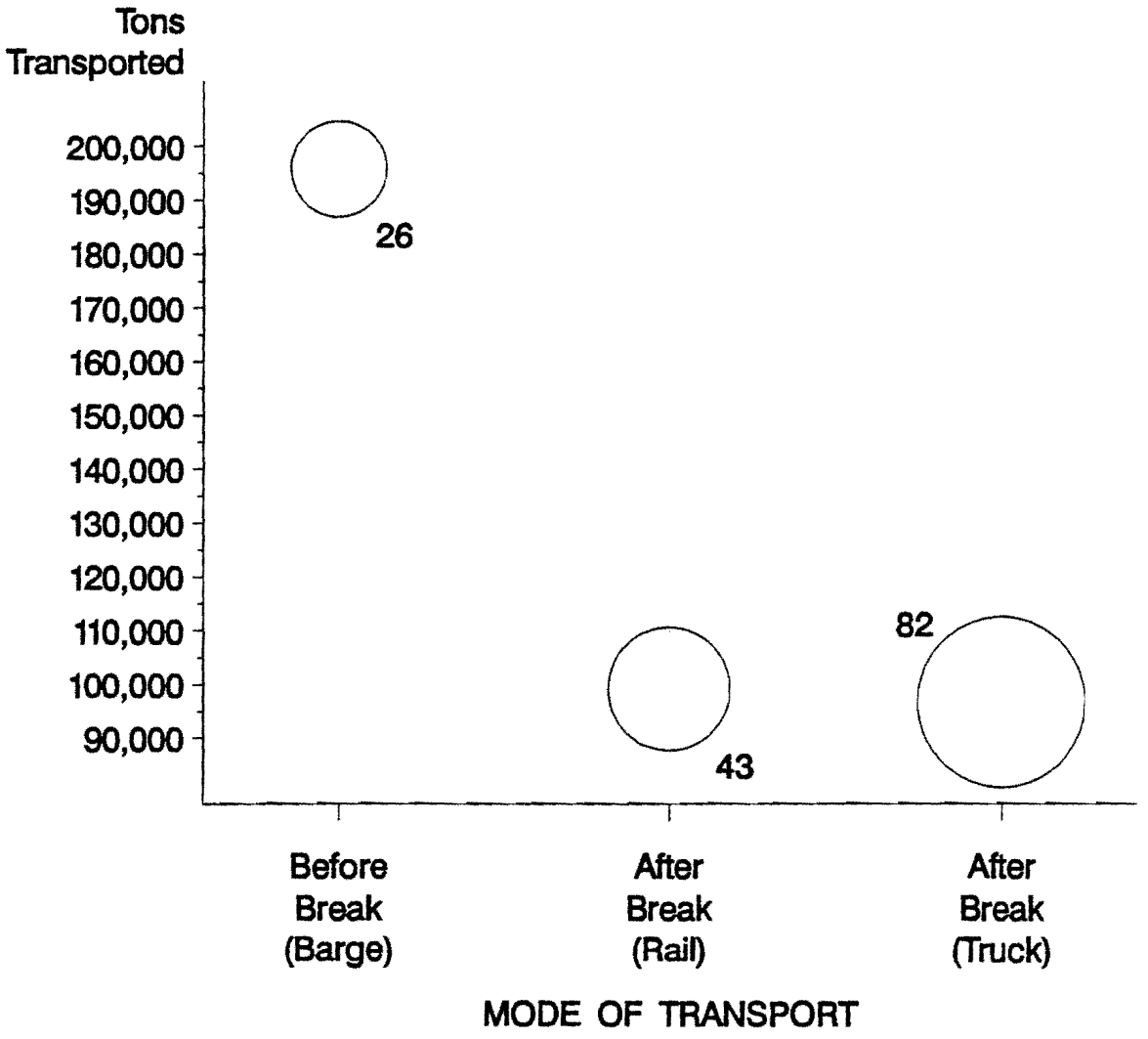
COST OF FUEL

AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 668–670 / Port Isabel



EMISSIONS (Tons)

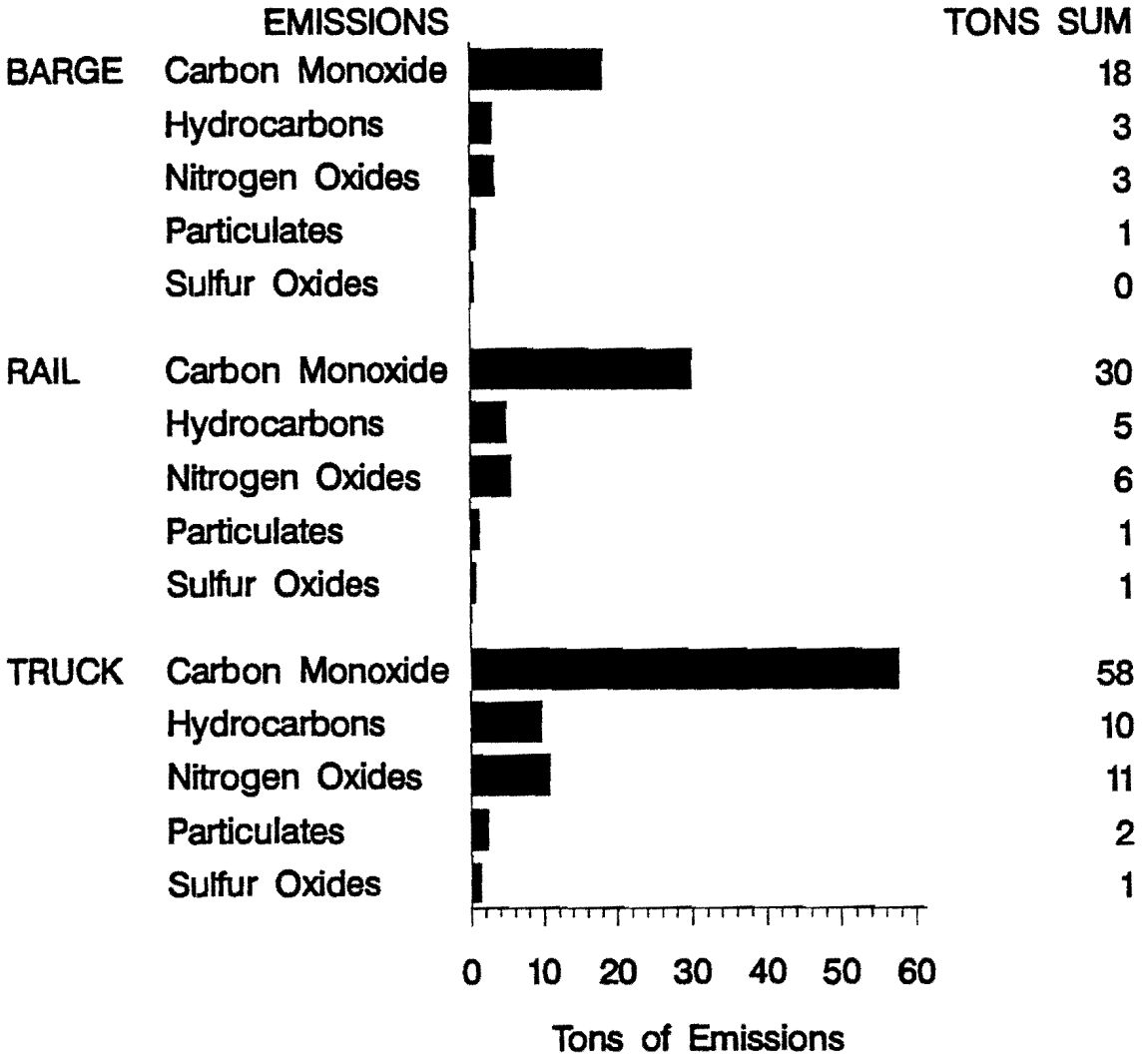
AS A FUNCTION OF TONS TRANSPORTED
HIGH END OF TON–MILES EFFICIENCY
BREAK POINT 668–670 / Port Isabel



EMISSIONS (Tons)

HIGH END OF TON-MILE EFFICIENCY

BREAK POINT 668-670 / Port Isabel



DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY
Break Point 668-670 / Port Isabel

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	670	12,615	.	26,864	39,479	202,000	45,284	36,972	210,312	31.45	23.85	10.44	44.86	0.21
500	670	1,650	.	815	2,465	7,859	409	687	7,581	1.22	0.22	0.19	1.25	0.01
550	670	1,810	.	894	2,704	5,896	307	515	5,688	0.92	0.16	0.15	0.93	0.01
670	360	58,163	.	59,468	117,631	499,974	53,816	59,139	494,651	77.85	28.35	16.70	89.49	0.53
670	550	22,395	.	11,063	33,458	72,958	3,794	6,375	70,377	11.36	2.00	1.80	11.56	0.08
		96,633	0	99,104	195,737	788,688	103,610	103,688	788,610	122.80	54.57	29.29	148.09	0.84

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY
Break Point 668-670 / Port Isabel

ORIGIN	DESTINA-TION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
500	670	1,650	.	815	2,465	5,240	319	606	4,953	0.82	0.17	0.17	0.81	0.01
550	670	1,810	.	894	2,704	3,931	240	455	3,716	0.61	0.13	0.13	0.61	0.01
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
670	550	22,395	.	11,063	33,458	48,639	2,964	5,625	45,978	7.57	1.56	1.59	7.55	0.08
		96,633	0	99,104	195,737	525,792	80,945	91,489	515,248	81.87	42.64	25.84	98.66	0.84

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 668-670 / Port Isabel

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1764	160701	8,692	.	4,149,703	14.52	14.48	0.27	4.5	4.5	24,000	24,001	375.00	375.04	0.27
FM1764	160702	5,795	.	4,149,703	20.00	19.95	0.27	3.0	3.0	24,000	24,001	750.00	750.05	0.54
I45	11004	8,119	.	12,973,790	6.95	6.94	0.04	11.4	11.4	62,000	62,001	968.75	968.78	0.44
I45	11005	7,147	.	5,528,218	2.18	2.18	0.03	10.0	10.0	95,667	95,668	1494.8	1494.8	0.68
I45	67508	12,388	.	15,422,523	12.91	12.89	0.09	17.4	17.4	26,000	26,002	406.25	406.30	0.18
S197	38911	10,454	.	3,294,557	20.00	19.78	1.11	5.4	5.4	5,833	5,834	182.28	182.37	0.13
S341	62801	11,589	.	4,149,703	20.00	19.75	1.27	6.0	6.0	5,100	5,102	79.69	79.74	0.06
S348	68601	21,633	.	7,909,001	19.32	19.23	0.46	11.2	11.2	14,500	14,503	453.13	453.30	0.32
S87	37606	58,163	.	6,504,983	20.00	19.18	4.12	9.2	9.3	5,000	5,008	156.25	156.73	0.11
US59	17707	70,778	.	4,149,703	2.37	2.37	0.36	6.2	6.2	106,000	106,009	1656.3	1656.5	0.75
US75	5104	58,163	.	6,011,120	10.14	10.05	0.87	6.2	6.2	36,000	36,008	562.50	562.74	0.26
US90A	2710	2,710	.	3,715,330	13.96	13.94	0.09	3.8	3.8	26,480	26,480	413.75	413.76	0.19

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US59	8905	70,778	.	2,112,832	2.78	2.75	0.83	21.1	21.2	13,600	13,609	212.50	212.79	0.10
US59	8904	70,778	.	2,112,832	2.78	2.76	0.83	21.4	21.5	13,400	13,409	209.38	209.67	0.10
US59	8903	70,778	.	2,112,832	2.39	2.37	0.71	21.8	21.8	15,350	15,359	239.84	240.14	0.11
US59	8901	70,778	.	5,841,189	11.03	10.90	1.19	13.6	13.6	14,767	14,776	230.73	231.03	0.11
US59	8804	72,428	.	5,841,189	11.42	11.28	1.26	15.0	15.1	12,867	12,877	201.05	201.35	0.09

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM70	155803	24,205	.	1,470,362	20.00	18.89	5.54	6.9	7.0	2,033	2,036	63.53	63.73	0.05
S286	32601	24,205	.	2,244,183	20.00	19.56	2.18	5.2	5.2	7,183	7,186	224.47	224.67	0.16
S286	32603	24,205	.	1,023,353	1.38	1.37	0.29	3.9	3.9	71,667	71,670	746.53	746.60	0.53
S358	61701	24,205	.	2,810,157	5.12	5.10	0.39	4.3	4.3	48,638	48,641	506.65	506.71	0.36
US77	37102	72,428	.	2,129,917	4.02	3.97	1.21	19.9	20.0	10,043	10,053	156.92	157.22	0.07
US77	37103	72,428	.	2,129,917	20.00	17.46	12.68	18.8	19.7	900	910	14.06	14.36	0.01
US77	37104	72,428	.	2,483,647	6.83	6.71	1.76	18.8	18.9	7,300	7,310	114.06	114.36	0.05
US77	37203	72,428	.	2,483,647	15.17	14.59	3.83	7.8	7.9	7,933	7,943	123.95	124.25	0.06

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 668-670 / Port Isabel

DISTRICT=CORPUS CHRISTI DISTRICT
(continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US77	37201	72,428	.	2,483,647	4.38	4.33	1.14	16.2	16.3	13,200	13,210	206.25	206.55	0.09
US77	37301	72,428	.	1,167,359	1.42	1.41	0.78	16.0	16.0	19,475	19,485	304.30	304.60	0.14
US77	10202	96,633	.	1,167,359	1.52	1.51	1.12	20.7	20.8	13,975	13,988	218.36	218.76	0.10
US77	10203	96,633	.	1,167,359	1.33	1.32	0.98	20.4	20.4	16,300	16,313	254.69	255.09	0.12
US77	10204	96,633	.	2,483,647	3.34	3.30	1.15	22.7	22.8	12,386	12,399	193.53	193.93	0.09
US77	32701	96,633	.	2,483,647	4.78	4.70	1.64	28.9	29.0	6,800	6,813	106.25	106.65	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	12,615	.	4,790,983	2.67	2.67	0.06	26.5	26.5	26,000	26,002	406.25	406.30	0.18
I10	73901	12,615	.	4,790,983	2.55	2.55	0.06	28.9	28.9	25,000	25,002	390.63	390.68	0.18
I10	50803	12,615	.	4,790,983	2.56	2.56	0.06	26.2	26.2	27,500	27,502	429.69	429.74	0.20
I10	50802	12,615	.	4,790,983	2.56	2.56	0.06	23.8	23.8	30,333	30,335	473.95	474.01	0.22

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S100	33102	96,633	.	1,673,506	4.04	3.96	2.05	10.8	10.9	14,500	14,513	453.13	453.93	0.32
S48	22005	96,633	.	3,096,382	16.69	15.97	4.34	4.7	4.8	15,657	15,670	244.64	245.04	0.18
US77	32702	96,633	.	5,006,733	9.84	9.68	1.68	29.6	29.7	6,500	6,513	101.56	101.96	0.05
US77	32703	96,633	.	5,006,733	10.24	10.06	1.75	30.3	30.4	6,100	6,113	95.31	95.71	0.04
US77	32704	96,633	.	5,006,733	10.38	10.19	1.77	30.4	30.5	6,000	6,013	93.75	94.15	0.04
US77	32705	96,633	.	5,006,733	9.39	9.24	1.60	30.1	30.2	6,700	6,713	104.69	105.09	0.05
US77	32710	96,633	.	1,951,437	3.48	3.42	1.53	25.6	25.7	8,287	8,300	129.48	129.88	0.06
US77	32708	96,633	.	1,951,437	13.66	12.88	5.74	5.4	5.5	10,000	10,013	104.17	104.43	0.05
US77	3907	96,633	.	1,951,437	1.14	1.13	0.50	23.2	23.2	27,920	27,933	436.25	436.65	0.20
US77	3908	96,633	.	1,951,437	2.82	2.78	1.24	11.8	11.9	22,200	22,213	346.88	347.28	0.16
US77	3909	96,633	.	1,951,437	1.99	1.97	0.88	11.8	11.8	31,400	31,413	490.63	491.03	0.22

DETAILED ANALYSIS OF AFFECTED TONNAGE
LOW END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 668-670 / Port Isabel

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	670	7,569	.	16,118	23,687	121,200	27,171	22,183	126,187	18.87	14.31	6.27	26.92	0.13
500	670	990	.	489	1,479	4,716	245	412	4,549	0.73	0.13	0.12	0.75	0.01
550	670	1,086	.	536	1,622	3,538	184	309	3,413	0.55	0.10	0.09	0.56	0.00
670	360	34,898	.	35,681	70,579	299,985	32,289	35,483	296,791	46.71	17.01	10.02	53.69	0.32
670	550	13,437	.	6,638	20,075	43,775	2,276	3,825	42,226	6.82	1.20	1.08	6.93	0.05
		57,980	0	59,463	117,442	473,213	62,166	62,213	473,166	73.68	32.74	17.57	88.85	0.50

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

DETAILED ANALYSIS OF AFFECTED TONNAGE
HIGH END OF TON-MILES EFFICIENCY (40% TONNAGE REDUCTION)
Break Point 668-670 / Port Isabel

ORIGIN	DESTINATION	AFFECTED TONS (TRUCK)	HAZARD TONS (TRUCK)	AFFECTED TONS (RAIL)	AFFECTED TONS (BARGE)	COST OF FUEL (TRUCK)	COST OF FUEL (RAIL)	COST OF FUEL (BARGE)	NET COST	EMISSION TRUCK (TONS)	EMISSION RAIL (TONS)	EMISSION BARGE (TONS)	NET EMISSION	ACCIDENT
1	670	12,615	.	26,864	39,479	134,667	35,378	32,622	137,423	20.97	18.63	9.21	30.39	0.21
500	670	1,650	.	815	2,465	5,240	319	606	4,953	0.82	0.17	0.17	0.81	0.01
550	670	1,810	.	894	2,704	3,931	240	455	3,716	0.61	0.13	0.13	0.61	0.01
670	360	58,163	.	59,468	117,631	333,316	42,044	52,181	323,178	51.90	22.15	14.74	59.30	0.53
670	550	22,395	.	11,063	33,458	48,639	2,964	5,625	45,978	7.57	1.56	1.59	7.55	0.08
		96,633	0	99,104	195,737	525,792	80,945	91,489	515,248	81.87	42.64	25.84	98.66	0.84

NOTE: An Origin or Destination value of "1" indicates
a location outside GIWW milepoints 270-670

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 668-670 / Port Isabel
40 PERCENT TONNAGE REDUCTION

DISTRICT=HOUSTON DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM1764	160701	5,215	.	4,149,703	14.52	14.50	0.16	4.5	4.5	24,000	24,001	375.00	375.02	0.27
FM1764	160702	3,477	.	4,149,703	20.00	19.97	0.16	3.0	3.0	24,000	24,000	750.00	750.03	0.54
I45	11004	4,871	.	12,973,790	6.95	6.95	0.02	11.4	11.4	62,000	62,001	968.75	968.77	0.44
I45	11005	4,288	.	5,528,218	2.18	2.18	0.02	10.0	10.0	95,667	95,668	1494.8	1494.8	0.68
I45	67508	7,433	.	15,422,523	12.91	12.90	0.06	17.4	17.4	26,000	26,001	406.25	406.28	0.18
S197	38911	6,273	.	3,294,557	20.00	19.87	0.67	5.4	5.4	5,833	5,834	182.28	182.33	0.13
S341	62801	6,953	.	4,149,703	20.00	19.85	0.77	6.0	6.0	5,100	5,101	79.69	79.72	0.06
S348	68601	12,980	.	7,909,001	19.32	19.26	0.28	11.2	11.2	14,500	14,502	453.13	453.23	0.32
S87	37606	34,898	.	6,504,983	20.00	19.50	2.51	9.2	9.3	5,000	5,005	156.25	156.54	0.11
US59	17707	42,467	.	4,149,703	2.37	2.37	0.22	6.2	6.2	106,000	106,006	1656.3	1656.4	0.75
US75	5104	34,898	.	6,011,120	10.14	10.08	0.53	6.2	6.2	36,000	36,005	562.50	562.64	0.26
US90A	2710	1,626	.	3,715,330	13.96	13.95	0.05	3.8	3.8	26,480	26,480	413.75	413.76	0.19

DISTRICT=YOAKUM DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US59	8905	42,467	.	2,112,832	2.78	2.76	0.50	21.1	21.2	13,600	13,606	212.50	212.68	0.10
US59	8904	42,467	.	2,112,832	2.78	2.77	0.50	21.4	21.5	13,400	13,406	209.38	209.55	0.10
US59	8903	42,467	.	2,112,832	2.39	2.38	0.43	21.8	21.8	15,350	15,356	239.84	240.02	0.11
US59	8901	42,467	.	5,841,189	11.03	10.95	0.72	13.6	13.6	14,767	14,773	230.73	230.91	0.10
US59	8804	43,457	.	5,841,189	11.42	11.33	0.76	15.0	15.1	12,867	12,873	201.05	201.23	0.09

DISTRICT=CORPUS CHRISTI DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
FM70	155803	14,523	.	1,470,362	20.00	19.32	3.40	6.9	7.0	2,033	2,035	63.53	63.65	0.05
S286	32601	14,523	.	2,244,183	20.00	19.74	1.32	5.2	5.2	7,183	7,185	224.47	224.59	0.16
S286	32603	14,523	.	1,023,353	1.38	1.37	0.18	3.9	3.9	71,667	71,669	746.53	746.57	0.53
S358	61701	14,523	.	2,810,157	5.12	5.11	0.24	4.3	4.3	48,638	48,640	506.65	506.69	0.36
US77	37102	43,457	.	2,129,917	4.02	3.99	0.73	19.9	20.0	10,043	10,049	156.92	157.10	0.07
US77	37103	43,457	.	2,129,917	20.00	18.40	8.02	18.8	19.4	900	906	14.06	14.24	0.01
US77	37104	43,457	.	2,483,647	6.83	6.75	1.06	18.8	18.9	7,300	7,306	114.06	114.24	0.05

CONTROL & SECTION NUMBERS AFFECTED BY BREAK IN GIWW
BREAK POINT 668-670 / Port Isabel
40 PERCENT TONNAGE REDUCTION

DISTRICT=CORPUS CHRISTI DISTRICT (continued)

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
US77	37203	43,457	.	2,483,647	15.17	14.82	2.33	7.8	7.9	7,933	7,939	123.95	124.13	0.06
US77	37201	43,457	.	2,483,647	4.38	4.35	0.68	16.2	16.3	13,200	13,206	206.25	206.43	0.09
US77	37301	43,457	.	1,167,359	1.42	1.41	0.47	16.0	16.0	19,475	19,481	304.30	304.48	0.14
US77	10202	57,980	.	1,167,359	1.52	1.51	0.68	20.7	20.8	13,975	13,983	218.36	218.60	0.10
US77	10203	57,980	.	1,167,359	1.33	1.32	0.59	20.4	20.4	16,300	16,308	254.69	254.93	0.12
US77	10204	57,980	.	2,483,647	3.34	3.31	0.70	22.7	22.8	12,386	12,394	193.53	193.77	0.09
US77	32701	57,980	.	2,483,647	4.78	4.73	0.99	28.9	29.0	6,800	6,808	106.25	106.49	0.05

DISTRICT=BEAUMONT DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
I10	73902	7,569	.	4,790,983	2.67	2.67	0.04	26.5	26.5	26,000	26,001	406.25	406.28	0.18
I10	73901	7,569	.	4,790,983	2.55	2.55	0.04	28.9	28.9	25,000	25,001	390.63	390.66	0.18
I10	50803	7,569	.	4,790,983	2.56	2.56	0.04	26.2	26.2	27,500	27,501	429.69	429.72	0.20
I10	50802	7,569	.	4,790,983	2.56	2.56	0.04	23.8	23.8	30,333	30,334	473.95	473.98	0.22

DISTRICT=PHARR DISTRICT

HIGHWAY	CONTROL/ SECTION	ADD TONS	HAZARD TONS	18K ESALS BEFORE FAILURE	YEARS TO FAILURE BEFORE BREAK	YEARS TO FAILURE AFTER BREAK	MAINT COST INCREASE %	% TRUCKS BEFORE BREAK	% TRUCKS AFTER BREAK	AADT BEFORE BREAK	AADT AFTER BREAK	CURRENT CONGEST FACTOR	NEW CONGEST FACTOR	CRITICAL
S100	33102	57,980	.	1,673,506	4.04	3.99	1.24	10.8	10.8	14,500	14,508	453.13	453.61	0.32
S48	22005	57,980	.	3,096,382	16.69	16.25	2.65	4.7	4.7	15,657	15,665	244.64	244.88	0.17
US77	32702	57,980	.	5,006,733	9.84	9.74	1.01	29.6	29.7	6,500	6,508	101.56	101.80	0.05
US77	32703	57,980	.	5,006,733	10.24	10.13	1.06	30.3	30.4	6,100	6,108	95.31	95.55	0.04
US77	32704	57,980	.	5,006,733	10.38	10.26	1.07	30.4	30.5	6,000	6,008	93.75	93.99	0.04
US77	32705	57,980	.	5,006,733	9.39	9.30	0.97	30.1	30.2	6,700	6,708	104.69	104.93	0.05
US77	32710	57,980	.	1,951,437	3.48	3.44	0.92	25.6	25.7	8,287	8,295	129.48	129.72	0.06
US77	32708	57,980	.	1,951,437	13.66	13.18	3.52	5.4	5.5	10,000	10,008	104.17	104.33	0.05
US77	3907	57,980	.	1,951,437	1.14	1.14	0.30	23.2	23.2	27,920	27,928	436.25	436.49	0.20
US77	3908	57,980	.	1,951,437	2.82	2.79	0.75	11.8	11.8	22,200	22,208	346.88	347.12	0.16
US77	3909	57,980	.	1,951,437	1.99	1.98	0.53	11.8	11.8	31,400	31,408	490.63	490.87	0.22