

GIS REGISTRY INFORMATION

SITE NAME:	Superior Refinery/Murphy Oil			FID #	
BRRTS #:	02-16-190549		(if appropriate):		
COMMERCE # (if appropriate):	54880-0456-07				
CLOSURE DATE:	August 29, 2003				
STREET ADDRESS:	2400 Stinson Ave				
CITY:	Superior				
SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection):	X =	361724	Y =	692930	
CONTAMINATED MEDIA:	Groundwater	<input type="checkbox"/>	Soil	<input checked="" type="checkbox"/>	Both <input type="checkbox"/>
OFF-SOURCE GW CONTAMINATION >ES:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
• IF YES, STREET ADDRESS:					
• GPS COORDINATES (meters in WTM91 projection):	X =		Y =		
OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL):	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
• IF YES, STREET ADDRESS 1:					
• GPS COORDINATES (meters in WTM91 projection):	X =		Y =		
CONTAMINATION IN RIGHT OF WAY:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
<u>DOCUMENTS NEEDED</u>					
Closure Letter, and any conditional closure letter issued					<input checked="" type="checkbox"/>
Copy of most recent deed, including legal description, for all affected properties					<input checked="" type="checkbox"/>
Certified survey map or relevant portion of the recorded plat map (if referenced in the legal description) for all affected properties					<input checked="" type="checkbox"/>
County Parcel ID number, if used for county, for all affected properties					<input checked="" type="checkbox"/>
Location Map which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site.					<input checked="" type="checkbox"/>
Detailed Site Map(s) for all affected properties, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs.					<input checked="" type="checkbox"/>
Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)					<input type="checkbox"/>
Tables of Latest Soil Analytical Results (no shading or cross-hatching)					<input checked="" type="checkbox"/>
Isoconcentration map(s), if required for site investigation (SI) (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of groundwater contamination defined. If not available, include the latest extent of contaminant plume map.					<input type="checkbox"/>
GW: Table of water level elevations, with sampling dates, and free product noted if present					<input type="checkbox"/>
GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees)					<input type="checkbox"/>
SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour					<input checked="" type="checkbox"/>
Geologic cross-sections, if required for SI. (8.5x14" if paper copy)					<input type="checkbox"/>
RP certified statement that legal descriptions are complete and accurate					<input checked="" type="checkbox"/>
Copies of off-source notification letters (if applicable)					<input type="checkbox"/>
Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW)					<input type="checkbox"/>
Copy of (soil or land use) deed restriction(s) or deed notice if any required as a condition of closure					<input type="checkbox"/>



ENVIRONMENTAL & REGULATORY SERVICES DIVISION
BUREAU OF PECFA
P.O. Box 8044
Madison, Wisconsin 53708-8044
TDD #: (608) 264-8777
Fax #: (608) 267-1381
<http://www.commerce.state.wi.us>
<http://www.wisconsin.gov>
Jim Doyle, Governor
Cory L. Nettles, Secretary

August 29, 2003

Liz Lundmark
Murphy Oil USA
2400 Stinson Ave
PO Box 2066
Superior, WI 54880

RE: **Final Closure**

Commerce # 54880-0456-07-D WDNR BRRTS # 02-16-190549
Superior Refinery/Murphy Oil, 2400 Stinson Ave, Superior

Dear Mr. Lundmark:

The Wisconsin Department of Commerce (Commerce) has received all items required as conditions for closure of the site referenced above. This case is now listed as "closed" on the Commerce database and will be included on the Wisconsin Department of Natural Resources (WDNR) Geographic Information System (GIS) Registry of Closed Remediation Sites to address residual contamination. It is in your best interest to keep all documentation related to the environmental activities that were conducted.

If residual contamination is encountered in the future, it must be managed in accordance with all applicable regulations. If it is determined that any remaining contamination poses a threat, the case may be reopened and further investigation or remediation may be required. If applicable, the PECFA claim for this site would also be reopened and you may apply for assistance to the extent of remaining eligibility.

Thank you for your efforts to bring this case to closure. If you have any questions, please contact me in writing at the letterhead address or by telephone at (608) 261-7718.

Sincerely,

Woody Myers
Geologist
Site Review Section

cc: Jeffrey King, Gannett Fleming Inc

THIS INDENTURE, Made by Lake Superior Refining Co.,
 a Wisconsin corporation, grantor, of Douglas County, Wisconsin,
 hereby conveys and warrants to Murphy Corporation, a Louisiana
 corporation, grantee, whose principal office is in Eldorado,
 Union County, Arkansas, in accordance with the plan of complete
 liquidation and dissolution adopted by the Board of Directors
 and Stockholders of the grantor hereinabove mentioned, the
 following tracts of land and personal property in Douglas County,
 State of Wisconsin:

All of the following described lands being on
 West Twenty-third (23) Street, Townsite of
 Superior, in the City of Superior, Douglas
 County, Wisconsin:

All of Block Fifteen (15);
 All of Block Sixteen (16);
 North one-half (N $\frac{1}{2}$) of Block Seventeen (17);
 Southeast Quarter (SE $\frac{1}{4}$) of Block Seventeen (17);
 All of Block Eighteen (18);
 All of Block Nineteen (19), except Lots 314, 316,
 318 and 320 on West Twenty-second (22) Street
 in Bayfront Division;
 All of Block Twenty (20);
 All of Block Twenty-two (22), except Lots 343, 344,
 345, 346, 347, 348, 349, 350, 351 and 352 in Bay-
 front Division, a part of said Block Twenty-two (22);
 All of Block Twenty-four (24);
 All of Block Twenty-six (26);
 All of Block Twenty-eight (28);
 All of Block Thirty (30);

The following described Lots being on West Twenty-
 fifth (25) Street in the Townsite of Superior, in
 the City of Superior, Douglas County, Wisconsin:

All of Block Thirteen (13), subject to the Northern
 Pacific Railway Company easement for a right-of-
 way on Newton Avenue;
 All of Block Fourteen (14), subject to the Northern
 Pacific Railway Company easement for a right-of-
 way on Newton Avenue;
 All of Block Fifteen (15);
 All of Block Sixteen (16);
 All of Block Seventeen (17);
 All of Block Eighteen (18);
 All of Block Nineteen (19);
 All of Block Twenty (20);
 All of Block Twenty-one (21);

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All of Block Twenty-two (22);
All of Block Twenty-three (23);
All of Block Twenty-four (24);
All of Block Twenty-five (25);
All of Block Twenty-six (26);
All of Block Twenty-seven (27);
All of Fractional Block Twenty-eight (28);
All of Block Twenty-nine (29);
All of Block Thirty (30);

The following described Lot being on West Twenty-sixth (26) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:

All of Block Thirty-two (32);

The following described Lots being on West Twenty-seventh (27) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:

All of Block Nine (9);
All of Block Thirteen (13), subject to the Northern Pacific Railway Company easement for right-of-way on Newton Avenue;
All of Block Fourteen (14), subject to Northern Pacific Railway Company easement for right-of-way on Newton Avenue;
All of Block Fifteen (15);
All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-two (22);
All of Block Twenty-three (23);
All of Block Twenty-four (24);
All of Fractional Block Twenty-five (25);
All of Block Twenty-six (26);
All of Fractional Block Twenty-seven (27);
All of Block Twenty-eight (28);
All of Block Twenty-nine (29);
All of Block Thirty (30);
All of Block Thirty-one (31);
All of Block Thirty-two (32), subject to the Northern Pacific Railway Company easement for right-of-way on Newton Avenue;

The following described Lots being on West Twenty-ninth (29) Street in the Townsite of Superior, in the City of Superior, Douglas County, Wisconsin:

All of Block Seven (7);
All of Block Thirteen (13), subject to the Northern Pacific Railway Company easement for right-of-way on Newton Avenue;
All of Block Fourteen (14), subject to the Northern Pacific Railway Company easement for right-of-way on Newton Avenue;
All of Block Fifteen (15);

All of Block Sixteen (16);
All of Block Seventeen (17);
All of Block Eighteen (18);
All of Block Nineteen (19);
All of Block Twenty (20);
All of Block Twenty-one (21);
All of Block Twenty-two (22);
All of Block Twenty-three (23);
All of Block Twenty-four (24);
All of Block Twenty-five (25);
All of Block Twenty-six (26);
All of Block Twenty-seven (27);
All of Block Twenty-eight (28);
All of Block Twenty-nine (29);
That part of Block Thirty (30) lying East of the
East line of the Wisconsin Central Railway
Company right-of-way;
That part of Block Thirty-one (31) lying East of
the East line of the Wisconsin Central Railway
Company right-of-way;

Also the following easements:

1. A right-of-way easement five feet (5') in width for the purpose of laying, maintaining, operating, patrolling, altering, repairing, renewing and removing, in whole or in part, a six inch (6") supply pipe line for the transportation of crude petroleum from the storage tanks of the Lakehead Pipe Line Company, Inc. to the refinery owned and operated by Lake Superior Refining Co., together with the necessary fixtures, equipment and appurtenances over, through, upon, under, and across that portion of the Lakehead Pipe Line Company, Inc. property now traversed by said pipe line as it is presently laid and located; and as shown on the sketch or plat attached to that certain deed from Lakehead Pipe Line Company, Inc. to Superior Refinery Owners, Inc. dated July 23, 1952; and recorded in 232 of Deeds, page 231, in the office of the Register of Deeds for Douglas County, Wisconsin, said property being situated in Douglas County, Wisconsin, together with the rights of ingress and egress to and from said right-of-way through and over said above described land for any and all purposes necessary to the exercise by the grantee of the rights therein granted. Said easement to be effective as long as crude oil is taken through the pipe line system of Lakehead Pipe Line Company, Inc., subject to the restrictions contained in said easement deed.
2. That certain easement for a six inch (6") pipe line between Superior Refinery Owners, Inc. and the tank farm of the Lakehead Pipe Line Company, Inc. located in the City of Superior, Douglas County, Wisconsin, and described as follows: Commencing at a point on Twenty-sixth Avenue East and East Twenty-third Street; thence generally in an Easterly direction along the North property line

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of the Lakehead Pipe Line Company, Inc. to East Twentieth Street; thence in a South-easterly direction to Tank No. 5, a total distance of approximately eight hundred fifty (850) feet, in the City of Superior, Douglas County, Wisconsin; thence on East Twenty-third Street from the Lakehead Pipe Line Company, Inc. property line to Twenty-third Avenue East; thence beneath the tracks of the Northern Pacific Railway Company on Newton Avenue on Twenty-fifth Avenue East (formerly Newton Avenue) and the tracks of the Northern Pacific Railway Company's ore dock line between Twenty-fifth Avenue East and Twenty-sixth Avenue East along a line parallel with and distant ten (10) feet Southwesterly, measured at right angles, from the center line of East Twenty-third Street in the City of Superior, Douglas County, Wisconsin; and thence crossing Block Nine (9) on West Twenty-third Street and Block Ten (10) on West Twenty-first Street, in the City of Superior, according to the recorded plat thereof, along a line parallel with and distant two hundred forty (240) feet Southerly, measured at right angles, from the center line of the main track of the Northern Pacific Railway Company's Oregon dock line as now constructed; and crossing the Northern Pacific Railway Company's property in Block Seven (7) on West Twenty-first Street in the City of Superior, Douglas County, Wisconsin, along a line parallel with and distant twenty-seven (27) feet, more or less, Northeasterly, measured at right angles, from the Southwesterly line of said Block Seven (7), from the Northwesterly line of said Block Seven (7), to a point distant two hundred fifty (250) feet Southerly, measured at right angles, from said track center line; together with all easements, rights, contracts, grants, licenses, assignments, and permits of any nature, whether oral or written, and whether recorded or unrecorded, and all rights and interests arising out of adverse possession, or use of any kind or nature respecting the laying of pipe lines used in connection with the operation of said refinery and belonging to Lake Superior Refining Co., or in which it has some right, title or interest, and the maintenance, use, operation, repair, replacement and removal thereof upon, over, under and across the lands of others, and all pipe or pipes, pumps, compressors, motors, valves, controls, meters and all other equipment and apparatus constituting a part of or used in the operation of said pipe lines, including but not limited to said six inch (6") pipe line between the tank farm of said Lakehead Pipe Line Company, Inc. and said refinery of Lake Superior Refining Co.

<u>STORAGE</u>	<u>CAPACITY (BBLs)</u>	<u>CONSTRUCTION</u>
<u>Present Tank Nos.</u>		
40 and 41	5,000 each	Welded
42	56,000	Welded
50 (F-2)	500	Welded
51	2,300	Welded
52	9,500	Welded
53	20,000	Welded
54	25,000	Welded
60 and 61	5,000 each	Welded
63 and 64	10,000 each	Welded
65 and 66	16,500 each	Welded
67	20,000	Welded
68 and 69	48,000 each	Welded
80 and 81	1,200 each	Welded, insulated
82 and 83	1,800 each	Welded, insulated
84 and 85	2,500 each	Welded, insulated
86 and 87	16,500 each	Welded
88 and 89	35,000 each	Welded
90 and 91	36,000 each	Welded
92, 93, 94	1,700 each	Welded
96	250	Welded
F-1 (formerly B-1)	250	Welded
S-1	600	Welded
S-2	250	Welded

2. PLATFORMING UNIT - NO. 1

- a. Platforming furnace
- b. Reactors (3)
- c. Exchangers - heat
- d. Separator
- e. Compressors (2)
- f. Stabilizing tower
- g. Pumps and controls
- h. Platform control house
- i. Suction drum
- j. Stripper tower
- k. Absorber tower
- l. Amine regenerator

PLATFORMING UNIT - NO. 2

- a. Platforming furnace
- b. Reactors (3)
- c. Unifiners
- d. Exchangers - heat
- e. Compressors (2)
- f. Stabilizing tower
- g. Pumps and controls
- h. Platform control house
- i. Suction drum
- j. Stripper tower

3. That part of the West one-half (W $\frac{1}{2}$) of Section Thirty-six (36), Township Forty-nine (49) North, Range Fourteen (14) West, more fully described as follows: Commencing at the North Quarter (N $\frac{1}{4}$) corner of said Section Thirty-six (36), thence due South along the North-South quarter line, being the center line of Bardon Avenue, a distance of 1456.64 feet to the South property line of Twenty-sixth (26) Avenue extended; thence South 48° 36' West along the South property line of Twenty-sixth Avenue, a distance of 481 feet to the point of beginning; thence continuing in the same straight line a distance of 1323.53 feet to a point; thence South 89° 46' West, a distance of 151.91 feet to a point; thence South 48° 36' West a distance of 162.43 feet to a point; thence South 41° 24' East, a distance of 751 feet to a point; thence North 48° 36' East, a distance of 1463.36 feet to a point on the West line of Bardon Avenue; thence due North along the West line of Bardon Avenue, a distance of 207.10 feet to a point; thence North 41° 24' West a distance of 495.66 feet to the point of beginning, containing 24.18 acres, more or less, all in the City of Superior, Douglas County, Wisconsin.

In the area covered by these descriptions most of the streets and alleys have been vacated. Where these descriptions abut on streets and alleys which have been vacated the title of Lake Superior Refining Co. extends to the center of such street or alley.

Also all buildings, structures, fixtures, machinery, equipment and tools comprising and used in and about the conduct and operation of the oil refinery of Lake Superior Refining Co., located upon the tracts of land above described or otherwise, and including but not limited to the following, to-wit:

1. STORAGE	CAPACITY (BBLs)	CONSTRUCTION
<u>Present Tank Nos.</u>		
1, 2, 3 and 4	1,000 each	Welded
5 and 6	1,200 each	Welded
7, 8, 9, 10, 11 and 12	2,600 each	Welded
13 and 14	3,500 each	Welded
15 (formerly 62)	5,000	Welded
21 and 22	25,000 each	Welded
25, 26 and 27	217,000 each	Welded
30, 31, 32, 33, 34 and 35	5,000 each	Bolted
36 and 37	50,000 each	Welded
38 and 39	15,000 each	Welded

3. CRUDE UNITS NO. 1 AND NO. 2
 - a. Crude furnaces (2)
 - b. Exchangers - heat
 - c. Pumps and controls
 - d. Crude Tower A
 - e. Crude Tower B
 - f. Condenser box and coils
 - g. Receivers and caustic scrubbers

4. THERMAL CRACKING UNIT
 - a. Cracking furnace
 - b. Fractionating tower
 - c. Reaction chamber
 - d. Flash tower
 - e. Stabilizing tower
 - f. Exchangers - heat
 - g. Condenser box and coils
 - h. Pumps and controls
 - i. Hot oil pump

5. ASPHALT UNIT
 - a. Asphalt furnace
 - b. Vacuum tower
 - c. Oxidizing tower
 - d. Exchangers - heat
 - e. Pumps and controls

6. POLYMERIZATION UNIT
 - a. Poly furnace
 - b. Compressor
 - c. Poly tower
 - d. Exchanger - heat
 - e. 2 Reactors

7. BUILDINGS
 - a. Boiler house--contains two 35,000 lbs. per hour steam boilers
 - b. Boiler house--contains two 10,000 lbs. per hour steam boilers
 - c. Pump and control house
 - d. Transfer pump house
 - e. Linde treating house
 - f. Office building and addition
 - g. Warehouse building
 - h. Ethyl house
 - i. Hot oil pump house
 - j. Asphalt control and pump house
 - k. Truck loading racks (2)
 - l. Employees change house and addition
 - m. No. 2 Unit control house

8. RAILROAD SIDINGS

- a. Ethyl unloading siding
- b. Double track crude unloading and product loading siding

Together with all of the Lake Superior Refining Co.'s right, title and interest in and to any and all other buildings, structures, plants, facilities, fixtures and improvements and all other machinery, tools, apparatus, equipment, and all other personal property of whatsoever kind or nature now or hereafter located on the lands above described or located elsewhere and used or useful in connection with the conduct and operation of said refinery and pipe lines located on such lands and also any and all real property, rights, grants, liberties, estates, rights of way, servitudes, easements, franchises, privileges, immunities, consents, permits, patents and patent rights, licenses, leasing agreements, switch track agreements and leasing contracts now owned by Lake Superior Refining Co.

Subject to the rights of Lakehead Pipe Line Company, Inc. regarding some of the above captioned real estate to re-purchase lands conveyed by Lakehead Pipe Line Company, Inc. upon discontinuance of the use of said lands for an oil refinery or allied purposes.

IN WITNESS WHEREOF, the said grantor has caused these presents to be signed by Russell Marks, its President, and attested by J. A. O'Connor, Jr., its Secretary, at El Dorado, Arkansas, and its corporate seal to be hereunto affixed this the 10th day of April, A. D. 1961, to be effective for all purposes as of 7:00 o'clock A. M. on January 1, 1961.

Signed and Sealed in
Presence of:

James P. Waltham

B. Mark

LAKE SUPERIOR REFINING CO.

By *Russell Marks*

Russell Marks
President.

ATTEST:
J. A. O'Connor, Jr.

J. A. O'Connor, Jr.
Secretary.

STATE OF ARKANSAS)
(55.
COUNTY OF UNION)

Personally came before me, this 10th day of April,
A. D. 1961, Russell Marks, President, and J. A. O'Connor, Jr.,
Secretary of the above named corporation, to me known to be the
persons who executed the foregoing instrument, and to me known
to be such President and Secretary of said corporation, and ac-
knowledged that they executed the foregoing instrument as such
officers as the deed of said corporation, by its authority.



William J. Wynne
Notary Public, Union County, Arkansas.
My Commission expires Sept. 1, 1962.

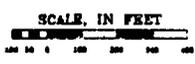
This instrument was drafted by
Paul L. Witkin, Attorney.

1250
J.F.N. & Co

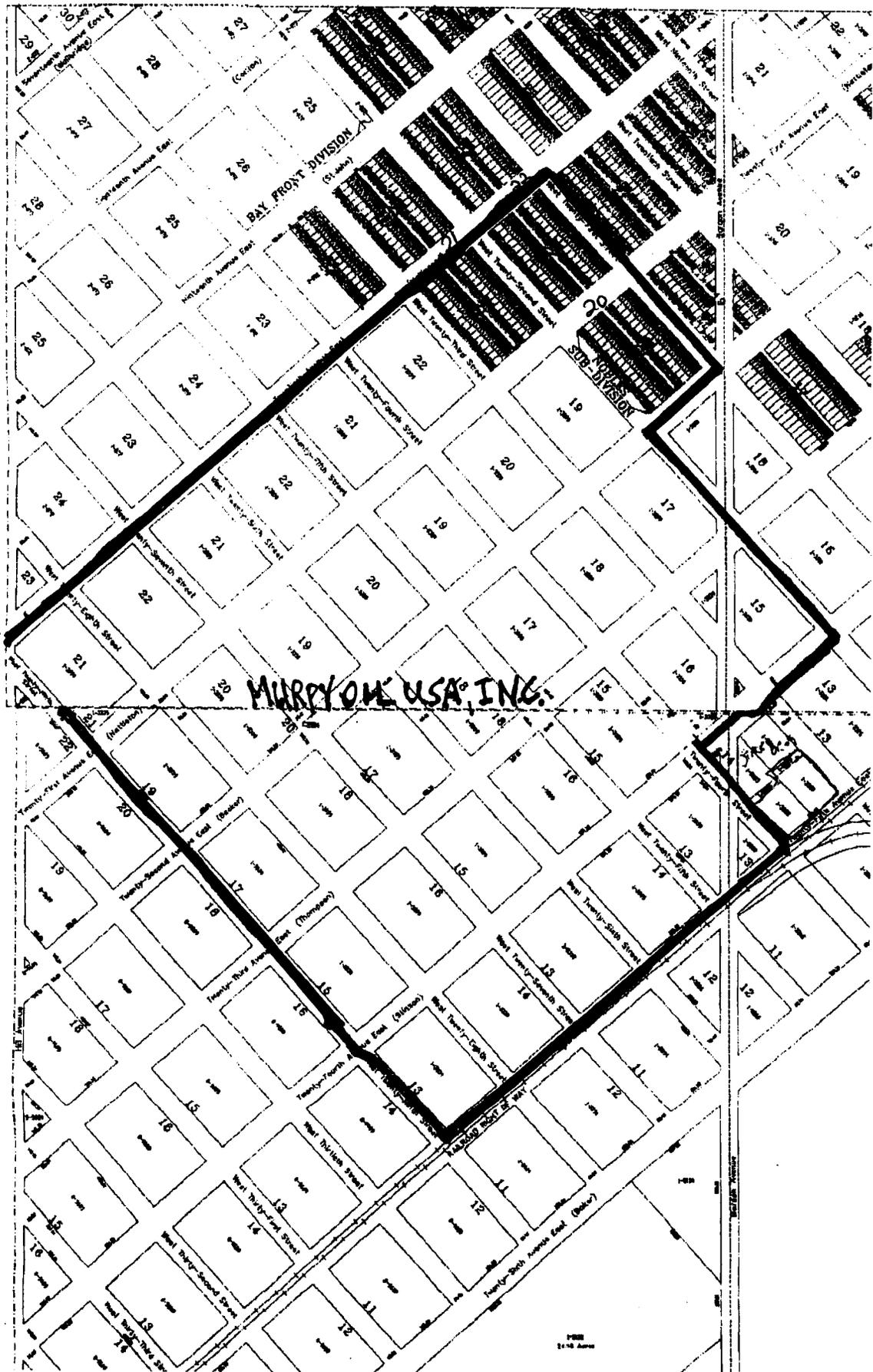
INDEXED RECORDS OF DEEDS
Book 900 Page 655
I hereby certify that the foregoing instrument was filed in the office of the Recorder of Deeds on the 10th day of April, A. D. 1961, and was duly recorded in book 2456 of Deeds, page 647.
L. F. N. & Co
RECORDER OF DEEDS
UNION COUNTY, ARKANSAS

453215

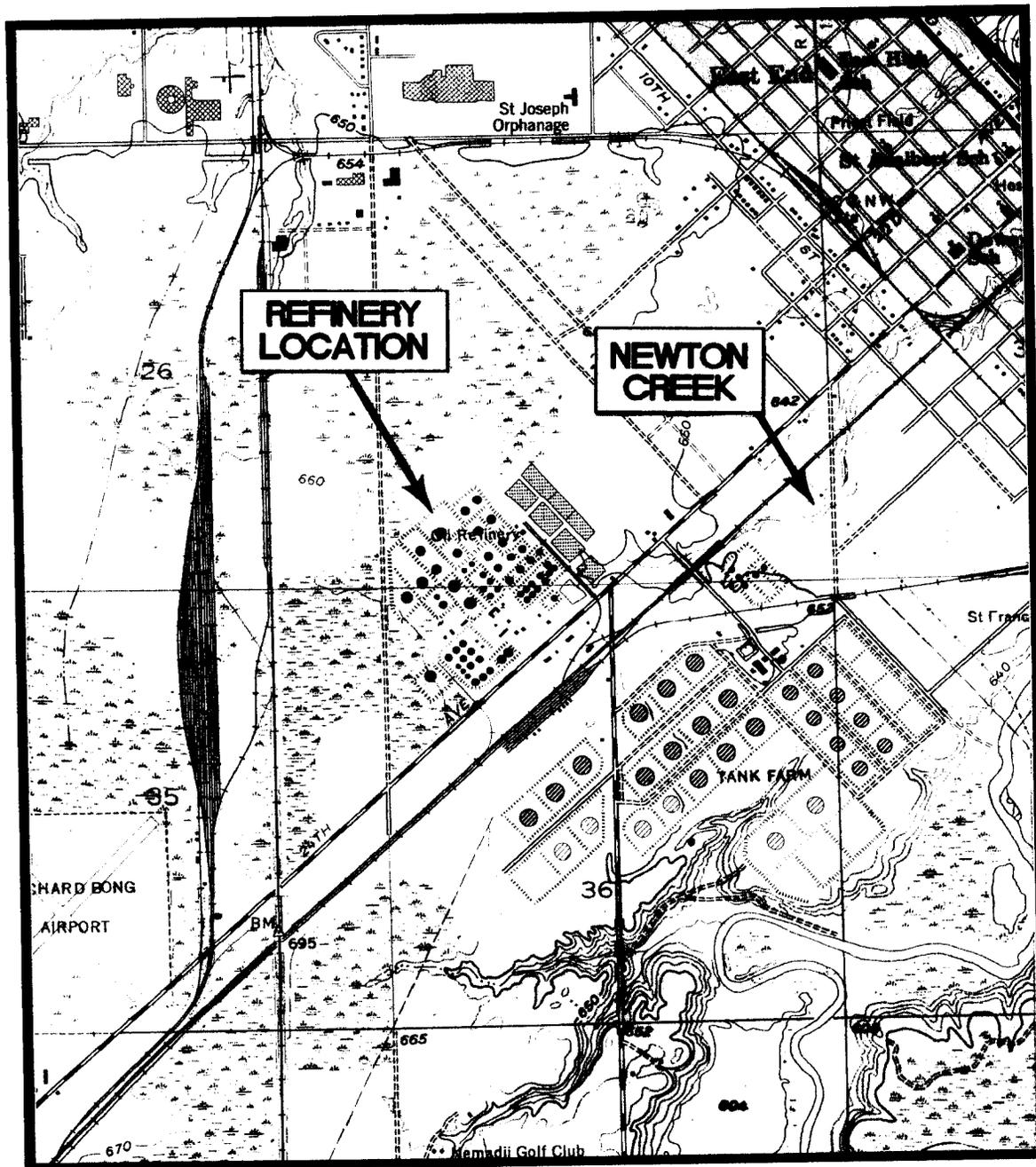
SOUTH 1/2 SEC. 25



Prepared By:
Douglas County Clerk's Office, R.W. Eerh
29 June 1992



2600



SCALE: 1 INCH = 2000 FEET
CONTOUR INTERVAL = 10 FEET

7.5 MIN TOPOGRAPHIC MAP
SUPERIOR, WISCONSIN
1954
PHOTOREVISED 1983



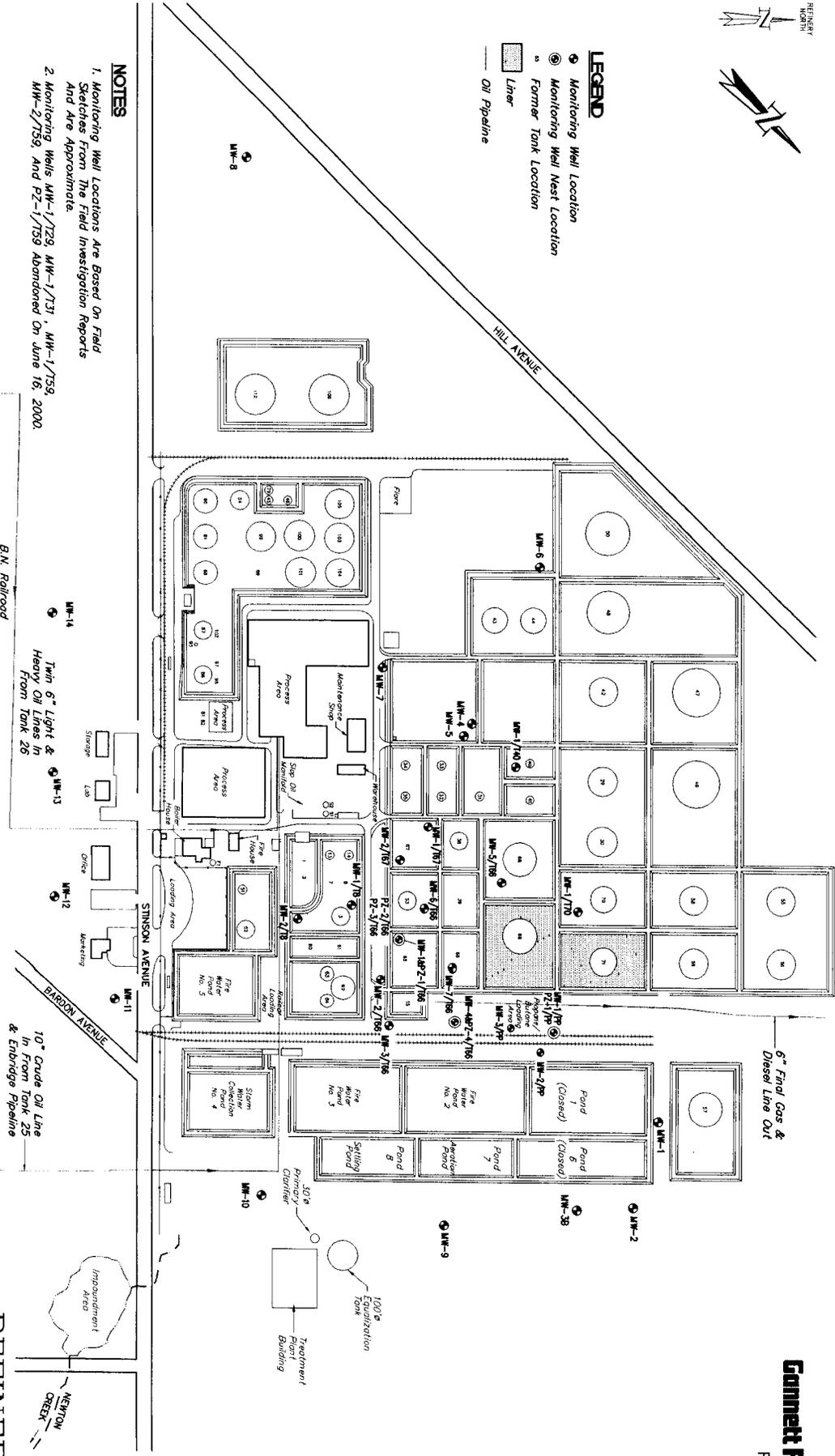
LOCATION MAP

MURPHY OIL USA, INC.
SUPERIOR, WISCONSIN



REFINERY
NORTH

- LEGEND**
- Monitoring Well Location
 - Former Tank Location
 - ▭ Liner
 - Oil Pipeline



- NOTES**
1. Monitoring Well Locations Are Based On Field Sketches From The Field Investigation Reports And Are Approximate.
 2. Monitoring Wells MW-1/729, MW-1/731, MW-1/759, MW-2/759, And P2-1/759 Abandoned On June 16, 2000.

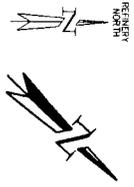


6" Fuel Gas & Diesel Line Out

10" Crude Oil Line In From Tank 25 & Embargo Pipeline

Gannett Fleming
FIGURE 2

REFINERY
SITE PLAN
MURPHY OIL USA, INC
SUPERIOR, WISCONSIN

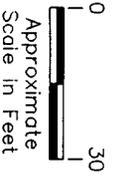
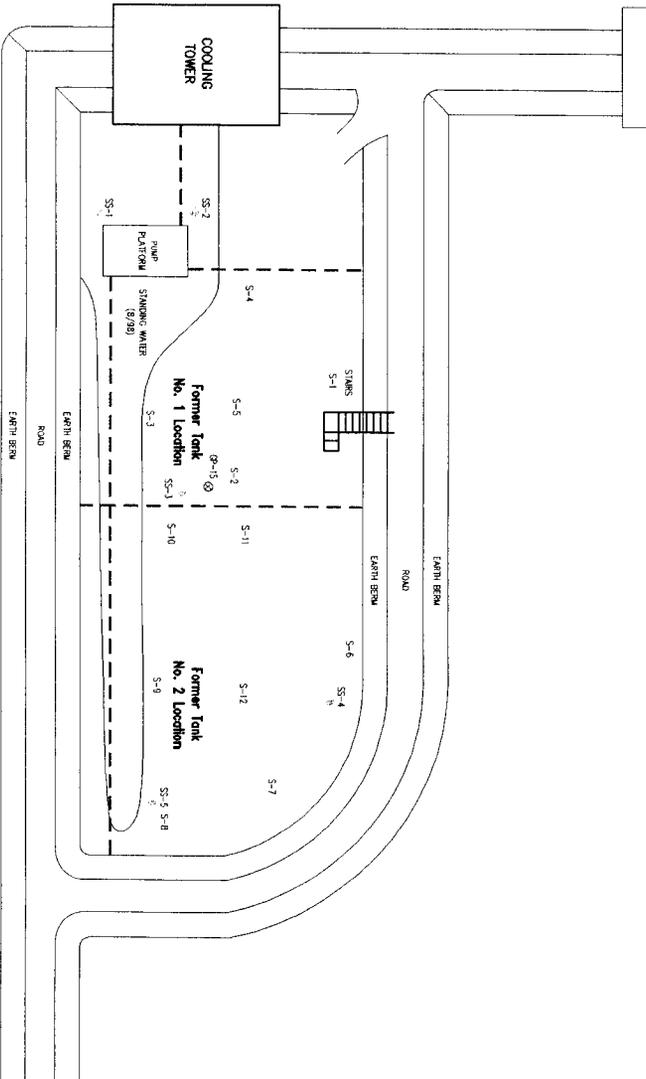


LEGEND

- S-7 Twin Ports Soil Sample Location (September 1986)
- S-2 Gannett Fleming Hand-Auger Soil Sample Location (July 1986)
- 9'-15" Gannett Fleming General Soil Sample Location (July 1986)
- Aboveground Piping

NOTES

1. Site Layout and Sample Locations are Based On Field Measurements and Are To Be Considered Approximate; Site Not Surveyed.
2. This Figure is Based On A Twin Ports Testing Site Plan Of The Tanks 1 And 2 Basin.



**HAND AUGGER AND GEOPROBE
SAMPLING LOCATIONS AT
FORMER TANK NOS. 1 AND 2**

MURPHY OIL USA, INC.
SUPERIOR, WISCONSIN

TABLE 1

ORGANIC VAPOR HEADSPACE RESULTS FOR SOIL SAMPLES
COLLECTED FROM FORMER TANKS 1 AND 2 BASIN

Sample ID	Date	Depth (feet)	Soil Type (USCS classif.)	Soil Moisture	PID Reading (ppm)
SS-1	07/09/98	1.5	Black-red clay (CL), petroleum-like odor	M	>1,000
SS-2	07/09/98	2.0	Black-red clay (CL), petroleum-like odor	M	>1,000
SS-3	07/09/98	1.0	Black-red clay (CL), petroleum-like odor	M	>1,000
SS-4	07/09/98	1.0	Black-red clay (CL), petroleum-like odor	M	>1,000
SS-5	07/09/98	1.0	Black-red clay (CL), petroleum-like odor	M	>1,000
S-1	09/03/98	1.0	Dark brown-black silty clay (CL), trace sand	M	113
S-2	09/03/98	1.0	Dark brown-black sand (SW), well graded, trace silt and gravel	M/W	8
S-3	09/03/98	1.0	Dark brown-black silty clay (CL), trace sand and organics	M	372
S-4	09/03/98	1.0	Dark brown-black silty clay (CL), little gravel	M	58
S-5	09/03/98	1.5	Dark brown-black silty clay (CL), trace sand	M	218
S-6	09/03/98	1.0	Dark brown-black silty clay (CL), little gravel	M	37
S-7	09/03/98	1.0	Brown sand (SW), well graded, little gravel	M	8
S-8	09/03/98	1.0	Red-brown clay (CH)	M	303
S-9	09/03/98	1.0	Brown clay (CH)	M	290
S-10	09/03/98	1.0	Brown sandy clay (CL), little gravel	M	193
S-11	09/03/98	1.0	Black gravel with silt and sand (GM) (hardpan-like)	M	0
S-12	09/03/98	1.5	Brown sand with gravel (SW), trace silt	M	122
B-1	10/06-07/98	2.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	160
B-2	10/06-07/98	2.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	92
B-3	10/06-07/98	2.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	806
B-4	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	413
	10/06-07/98	2.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	227
	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	121
B-5	10/06-07/98	2.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	462
	10/06-07/98	3.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	261
	10/06-07/98	4.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	84
	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	84
B-6	10/06-07/98	2.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	77
	10/06-07/98	3.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	246
	10/06-07/98	4*	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	121
B-7	10/06-07/98	2.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	201
	10/06-07/98	3.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	166
	10/06-07/98	4.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	159
	10/06-07/98	5.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	185
	10/06-07/98	6.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	142
	10/06-07/98	7.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	177
	10/06-07/98	8.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	170
	10/06-07/98	10.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	108
	10/06-07/98	12.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	147
	10/06-07/98	14.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	205
	10/06-07/98	15.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	95
	10/06-07/98	17*	Red-brn clay (CL), trace gravel & organics	M	45

Gannett Fleming

Table I Continued . . .

Sample ID	Date	Depth (feet)	Soil Type (USCS classif.)	Soil Moisture	PID Reading (ppm)
B-8	10/06-07/98	3.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	147
	10/06-07/98	3.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	211
	10/06-07/98	4.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	237
	10/06-07/98	4.5*	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	140
B-9	10/06-07/98	4.5*	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	2
B-10	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	369
B-11	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	448
B-12	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	259
B-13	10/06-07/98	4.5* (L)	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	192
R-1	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	129
R-2	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	190
R-3	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	250
R-4	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	159
R-5	10/06-07/98	3.0	Red-brn clay (CL), trace gravel & organics	M	131
R-6	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	322
T-1	10/06-07/98	1*	Red-brn clay (CL), trace gravel & organics	M	80
T-2	10/06-07/98	1*	Red-brn clay (CL), trace gravel & organics	M	25
T-3	10/06-07/98	0.5*	Red-brn clay (CL), trace gravel & organics	M	237
T-4	10/06-07/98	0.5*	Red-brn clay (CL), trace gravel & organics	M	259
T-5	10/06-07/98	1.5*	Red-brn clay (CL), trace gravel & organics	M	149
T-6	10/06-07/98	1.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	166
T-7	10/06-07/98	1.0	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	211
T-8	10/06-07/98	1.0	Red-brn clay (CL), trace gravel & organics	M	250
T-9	10/06-07/98	0.5	Red-brn clay (CL), trace gravel & organics	M	261
T-9	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	255
T-10	10/06-07/98	0.5	Red-brn clay (CL), trace gravel & organics	M	153
	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	149
T-11	10/06-07/98	1.0	Red-brn clay (CL), trace gravel & organics	M	121
T-11	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	84
T-12	10/06-07/98	0.5	Red-brn clay (CL), tr gr & organics, grey mottled fractures	M	82
T-12	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	203
T-13	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	164
T-14	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	121
T-15	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	294
T-16	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	172
T-17	10/06-07/98	2* (L)	Red-brn clay (CL), trace gravel & organics	M	166
T-18	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	642
T-19	10/06-07/98	2.0	Red-brn clay (CL), trace gravel & organics	M	73
T-20	10/06-07/98	2*	Red-brn clay (CL), trace gravel & organics	M	75

NOTES:

Soil samples SS- collected by Gannett Fleming, Inc.

Soil samples S- and T- collected by Twin Ports Testing.

* = Sample from the final extent of excavation.

PID = Photoionization detector.

ppm = Parts per million.

(L) = Sample submitted for chemical analysis.

tr = Trace.

gr = Gravel.

brn = Brown.

M = Moist.

D = Dry.

MURPHY OIL USA, INC.
SUPERIOR, WISCONSIN

TABLE 2

ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED FROM SOIL EXCAVATION AT FORMER TANKS 1 AND 2 BASIN (mg/kg)

Parameter	Sample I.D., Sample Depth, and Sample Date													NR 720 RCL	NR 746 Direct-Contact Standard
	GP-15		T-9	T-10	T-11	T-12	B-4	B-5	B-10	B-10		NR 720 RCL	NR 746 Direct-Contact Standard		
	1-1.5 ft 07/22/98	4.5-5 ft 07/22/98	2 ft 10/06/98	2 ft 10/06/98	2 ft 10/06/98	2 ft 10/06/98	4.5 ft 10/06/98	4.5 ft 10/06/98	4.5 ft 10/07/98	4.5 ft 10/07/98					
DRO	1,300	290	1,100	890	700	500	250	220	300			250	--		
GRO	380	86	880	440	1,300	1,300	340	100	180			250	--		
Benzene	<0.38	<0.076	<0.25	<0.25	<1.2	<0.50	<0.25	0.047	0.61			0.0055	1.1		
Toluene	<0.22	<0.044	2.6	0.57	<1.2	2.2	0.5	0.12	0.54			1.5	38		
Ethylbenzene	<0.22	<0.044	6.1	0.94	5.0	5.3	1.3	0.31	1.6			2.9	4.6		
Xylenes	<0.68	<0.136	20.3	5.0	11.0	13.13	5.7	0.420	6.7			4.1	42		
Trimethylbenzenes	45.2	5.8	44	11.7	60	74	16.2	1.44	8.8			--	94		
MTBE	<0.18	<0.036	<0.25	<0.25	<1.2	<0.50	<0.25	<0.025	<0.25			--	--		
Polycyclic Aromatic Compounds															
1-Methyl Naphthalene	62	3.1	11	NA	NA	10	NA	7.6	NA			--	--		
2-Methyl Naphthalene	120	6.5	18	NA	NA	19	NA	17	NA			--	--		
Acenaphthene	<0.48	<0.048	<0.24	NA	NA	<0.24	NA	<0.24	NA			--	--		
Acenaphthylene	<0.51	0.67	<0.26	NA	NA	<0.26	NA	<0.26	NA			--	--		
Anthracene	<0.23	<0.023	<0.12	NA	NA	<0.12	NA	<0.12	NA			--	--		
Benzo(a)anthracene	<0.020	<0.0020	<0.010	NA	NA	<0.010	NA	<0.010	NA			--	--		
Benzo(a)pyrene	<0.015	<0.0015	<0.0075	NA	NA	<0.0075	NA	<0.0075	NA			--	--		
Benzo(b)fluoranthene	<0.015	<0.0015	<0.0075	NA	NA	<0.0075	NA	<0.0075	NA			--	--		
Benzo(g,h,i)perylene	<0.041	<0.0041	<0.021	NA	NA	<0.021	NA	<0.021	NA			--	--		
Benzo(k)fluoranthene	<0.015	<0.0015	0.2	NA	NA	<0.0075	NA	<0.0075	NA			--	--		
Chrysene	<0.92	<0.092	<0.46	NA	NA	<0.46	NA	<0.46	NA			--	--		
Dibenzo(a,h)anthracene	<2.3	<0.23	<1.2	NA	NA	<1.2	NA	<1.2	NA			--	--		
Fluoranthene	<0.049	0.44	<0.025	NA	NA	<0.025	NA	<0.025	NA			--	--		
Fluorene	6.5	<0.0086	<0.043	NA	NA	<0.043	NA	<0.043	NA			--	--		
Indeno(1,2,3-cd)pyrene	<0.094	<0.0094	<0.047	NA	NA	<0.047	NA	<0.047	NA			--	--		
Naphthalene	33	1.1	1.4	NA	NA	4.5	NA	3.0	NA			--	2.7		
Phenanthrene	7.6	0.3	1.9	NA	NA	1.1	NA	0.81	NA			--	--		
Pyrene	<0.062	<0.0062	5.7	NA	NA	2.7	NA	3.1	NA			--	--		

Table 2 Continued

Parameter	Sample I.D., Sample Depth, and Sample Date										NR 720 RCL	NR 746 Direct-Contact Standard
	B-11	B-12	B-13	T-13	T-14	T-15	T-16	T-17	NR 720 RCL	NR 746 Direct-Contact Standard		
	4.5 ft 10/07/98	4.5 ft 10/07/98	4.5 ft 10/07/98	2 ft 10/07/98								
DRO	930	380	85	230	160	2,000	130	560	250	250	--	
GRO	300	110	72	48	120	570	47	190	250	250	--	
Benzene	0.89	0.80	0.17	<0.050	5.52	<0.25	0.43	<0.050	0.0055	0.0055	1.1	
Toluene	<0.25	<0.25	0.46	<0.050	<0.050	0.32	<0.050	0.11	1.5	1.5	38	
Ethylbenzene	3.8	1.5	0.78	0.11	2.3	8.3	1.0	0.36	2.9	2.9	4.6	
Xylenes	18.9	4	4.3	0.278	0.172	37.4	1.567	1.21	4.1	4.1	42	
Trimethylbenzenes	23.4	5.9	6	1.44	12.7	64	3.9	4	--	--	94	
MTBE	<0.25	<0.25	<0.12	<0.050	<0.050	<0.25	<0.050	<0.050	--	--	--	
Polycyclic Aromatic Compounds												
1-Methyl Naphthalene	2.0	<0.047	NA	1.1	NA	NA	1.2	NA	--	--	--	
2-Methyl Naphthalene	3.3	0.36	NA	1.6	NA	NA	2.2	NA	--	--	--	
Acenaphthene	<0.048	<0.048	NA	<0.048	NA	NA	<0.048	NA	--	--	--	
Acenaphthylene	0.30	0.12	NA	0.10	NA	NA	<0.051	NA	--	--	--	
Anthracene	<0.023	<0.023	NA	<0.023	NA	NA	<0.023	NA	--	--	--	
Benzo(a)anthracene	<0.0020	<0.0020	NA	<0.0020	NA	NA	<0.0020	NA	--	--	--	
Benzo(a)pyrene	<0.0015	<0.0015	NA	<0.0015	NA	NA	0.056	NA	--	--	--	
Benzo(b)fluoranthene	<0.0015	<0.0015	NA	<0.0015	NA	NA	<0.0015	NA	--	--	--	
Benzo(g,h,i)perylene	<0.0041	<0.0041	NA	<0.0041	NA	NA	<0.0041	NA	--	--	--	
Benzo(k)fluoranthene	<0.0015	<0.0015	NA	<0.0015	NA	NA	<0.0015	NA	--	--	--	
Chrysene	<0.092	<0.092	NA	<0.092	NA	NA	<0.092	NA	--	--	--	
Di benzo(a,h)anthracene	<0.23	<0.23	NA	<0.23	NA	NA	<0.23	NA	--	--	--	
Fluoranthene	<0.0049	0.23	NA	0.71	NA	NA	0.63	NA	--	--	--	
Fluorene	<0.0086	<0.0086	NA	<0.0086	NA	NA	<0.0086	NA	--	--	--	
Indeno(1,2,3-cd)pyrene	<0.0094	<0.0094	NA	<0.0094	NA	NA	<0.0094	NA	--	--	--	
Naphthalene	0.86	0.076	NA	<0.031	NA	NA	<0.031	NA	--	--	2.7	
Phenanthrene	0.52	0.098	NA	0.57	NA	NA	0.29	NA	--	--	--	
Pyrene	1.6	<0.0062	NA	2.2	NA	NA	0.99	NA	--	--	--	

NOTES:

Results reported in units of milligrams per kilogram (mg/kg).
 Results in bold exceed applicable NR 720 residual contaminant level (RCL) and/or 746 standard.

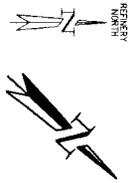
GP-15 soil samples collected by Gannett Fleming.

Soil samples B- and T- collected by Twin Ports Testing.

Results obtained from table created by Twin Ports Testing.

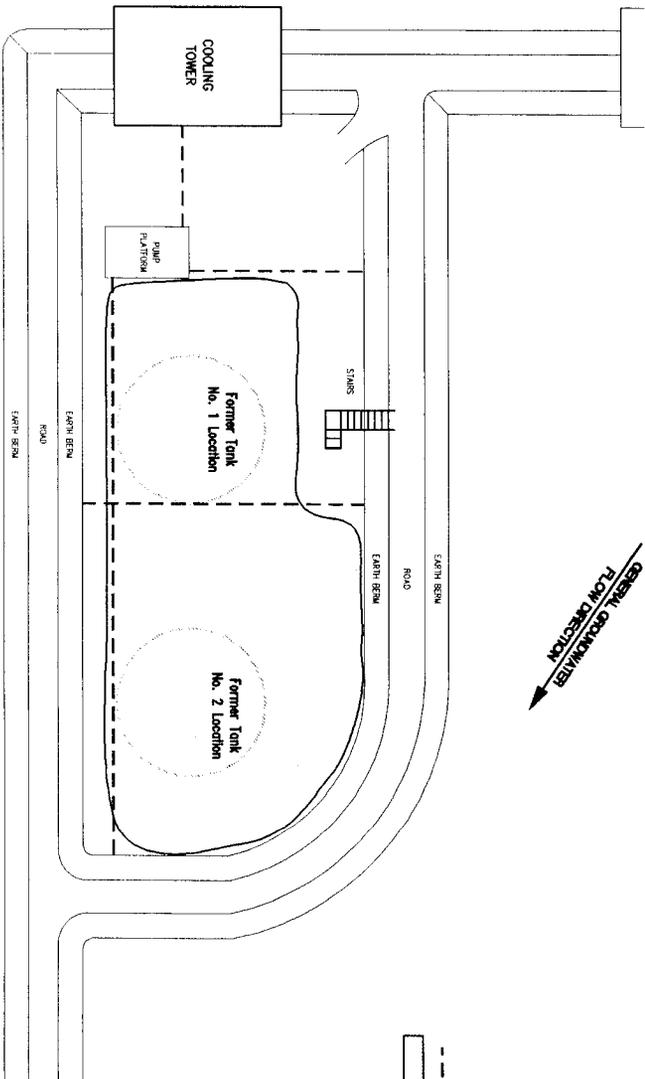
NA = Not analyzed

- = No standard



NOTES

1. Site Layout And Sample Locations Are Based On Field Measurements And Are To Be Considered Approximate; Site Not Surveyed.
2. This Figure Is Based On A Two Parts Testing Site Plan Of The Tanks 1 And 2 Basin.



GENERAL CONTAMINATED SOILS DIRECTION

LEGEND
 - - - - Aboveground Piping
 Area With Soils That Exceed NR720 and/or NR746 Standards

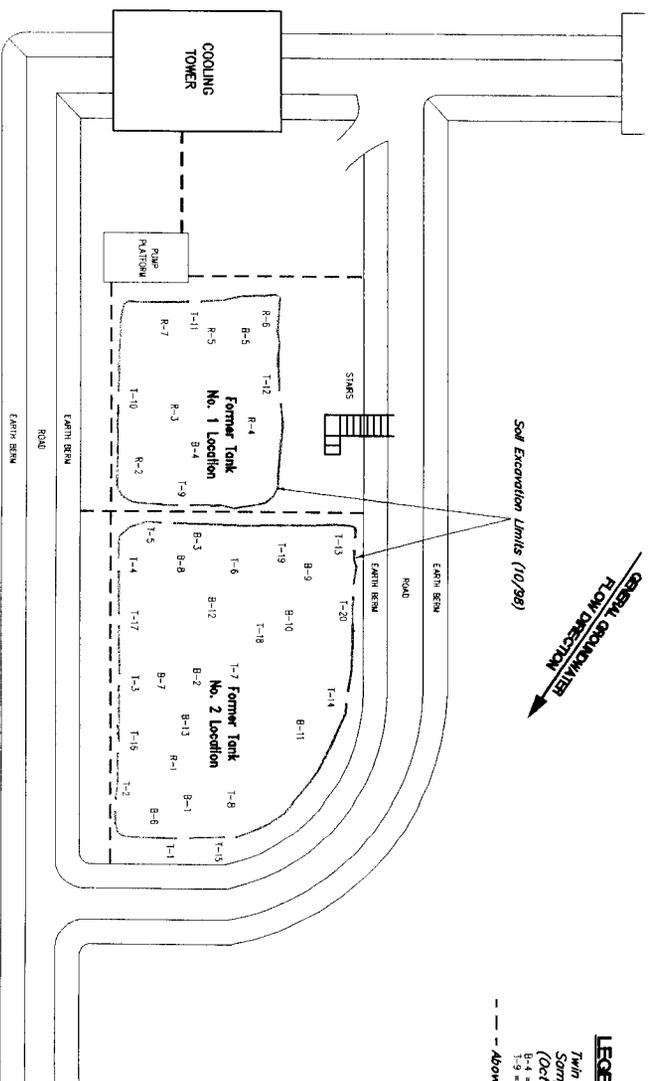
**EXTENT OF REMAINING
 PETROLEUM CONTAMINATED SOILS
 AT FORMER TANK NOS. 1 AND 2**

MURPHY OIL USA, INC.
 SUPERIOR, WISCONSIN



NOTES

1. T-6, 7, 8, 18, And 19 Were Collected During The Excavation Work And Were Not Found Extent Of Excavation. Sidewalk Samples, Soils At These Locations Were Excavated.
2. Site Layout And Sample Locations Are Based On Field Measurements And Are To Be Considered Approximate. Site Not Surveyed.
3. This Figure Is Based On A Twin Ports Testing Site Plan Of The Tanks 1 And 2 Basin.



LEGEND
 Twin Ports Soil Sample Location (October 6-7, 1998)
 B-1 - 4 = Boor Sample Location
 T-1 - 9 = Sidewalk Sample Location
 --- Aboveground Piping



LOCATIONS OF EXCAVATION SOIL SAMPLES AT FORMER TANK NOS. 1 AND 2

MURPHY OIL USA, INC.
 SUPERIOR, WISCONSIN

MURPHY OIL USA, INC.
2400 STINSON AVENUE
SUPERIOR, WISCONSIN
TANKS 1 AND 2 RELEASE SITE
BRRTS No.: 02-16-190549
COMM No.: 54880-0456-07-D

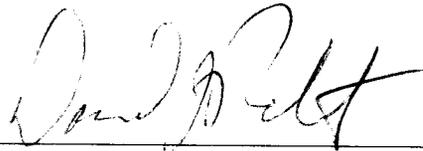
I hereby state that the legal description of the Murphy Oil refinery in Superior as stated in the deed dated January 1, 1961, and included as Attachment A to this GIS Registry submittal is complete and accurate for all the property associated with the Tanks 1 and 2 release site that has soil contamination that exceeded an NR 720 RCL and/or an NR 746 direct-contact standard at the time that closure was requested.

David J. Podratz

Printed Name

Refinery Manager

Title



Signature

8/22/03

Date