November 11, 2003

Mr. Brian Barwick
Assistant Regional Counsel
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Il 60604-3590

Re: Sinclair Oil Corporation Hartford Pipeline Documents

Dear Mr. Barwick:

Please find enclosed with this transmittal letter copies of the documents that you requested at our meeting of November 4, 2003. These documents present a comprehensive basis for Sinclair's understanding of the facts surrounding the pipeline construction, acquisition, operation, and releases during Sinclair's ownership from Sinclair's 10-inch pipeline in Hartford, Illinois.

Please call if you have any questions regarding the materials presented herein. I will be more than willing to respond to your comments or clarify any uncertainty that you may have. My telephone number is 801-524-2753.

Respectfully,

David E. Stice,
Sinclair Oil Corporation

Cc: LCH (w/o enclosures)
KWB (w/o enclosures)
JDM (w/o enclosures)

550E SOUTH TEMPLE • PO BOX 30825 • SALT LAKE CITY UTAH 84130-0825
801-524-2700

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North Hartford Documents
Transmitted to EPA November 10, 2003

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II. Concerning Acquisition of Hartford 10-inch pipeline by Sinclair Oil Corporation from Clark Oil and Refining Company, 1979-81.

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C Easement, Sinclair Refining Company (Maine) to Clark Oil & Refining Corporation (Wisconsin), across Sinclair Parcel 12. September 30, 1967.

D. Easement from Keller-Piasa Terminal, Inc. to Clark Oil & Refining Corporation (Wisconsin) and Sinclair Marketing, Inc. (Delaware).

E. Agreement dated September 28, 1981 between Clark Oil & Refining Corporation (Wisconsin) and Sinclair Marketing Inc. (Delaware).

F. Bill of Sale from Clark Oil & Refining Corporation (Wisconsin) to Sinclair Marketing, Inc. (Delaware), September 28, 1981

G. Easement, Clark Oil & Refining Corporation (Wisconsin) to Sinclair Marketing Inc. (Delaware), September 28, 1981.

III. Documents Concerning Construction, Testing, and Repair of North Hartford 10-inch Pipeline

A. Village of Hartford Ordinance No. 310 (copy certified 10/2/52), Ordinance granting easement to Sinclair Refining Company.

B. Correspondence concerning Permission to install pipelines, B.E. Gray, International Shoe to M.H. Nolan, Sinclair Refining, June 13, 1952.

C. Drawing No. WR003-FM-1223, Clark Oil & Refining. December, 7, 1979. Piping Location Plan, Existing 10" Proposed Sinclair Products Line from Amoco Products Line at Clark Pumps to West Clark Property Line. Revised March 6, 1980.

D. Drawing No. WR017, Sheet No. FM3. Sinclair Refining Co., New York. May 27, 1952. 2 10" Lines to Products Tank Farm, 1 6" C.I. Water Line to Tank Farm Through City of Hartford. Revised March 5, 1965.

E. Drawing WR00-DB-141, Clark Oil and Refining. March 4, 1980. 10" Product Lines in Parcel No. 12 from Point of Beginning thru Point "A" to Point "B."

F. APL Inter-Office Communication, December 26, 1978. From G.M. Stout to R.J. Osborn. Water Testing of Wood River/Clark Line.

G. APL Hydrostatic Test Record and Certification, April 30, 1979 (including work log). Hydrostatic test, 10-inch Clark Line.

IV. Documents Concerning Operation of North Hartford 10-inch Pipeline

A. Correspondence from RJ Osborn, APL to RG Beard, Sinclair Marketing. August 28, 1979. AMOCO Connection to ARCO's Wood River Station.

B. Agreement dated 12/31/79 between Sinclair and ARCO Pipe Line Co.

C. APL Inter-Office Communication, APL, December 31, 1979. From EJ Temple to G.E. McEntire – Carrollton. Changes in Operations - Wood River Station.

D. Correspondence, October 6, 1980. From VP Driski to Sinclair Marketing. Integrity check between APL meters and Amoco pump discharge.

E. APL Inter-Office Communication, November 25, 1980. From G.E. McEntire, Carrollton, to R.J. Osborn, Independence. Cathodic Protection 10" Pipeline Clark Refinery to Wood River Station.

F. APL Internal Correspondence, May 11, 1984. From D.P. Driski to R.J. Osborn. Wood River Station Supply Source for Sinclair.

G. APL Internal Correspondence, August 23, 1990. D. Dooley to M.P. Gallegos and D.W. Allyn. Procedure for Evacuation of Product from 10-inch Line Running from Clark Refinery to Wood River Station in Hartford, Illinois.

V. North Hartford 10-inch Pipeline Known Leaks and Spills

A. Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Co., to T. Hillig, St. Louis Post-Dispatch, September 8, 2003. (citing Village of Hartford Reporting Officer, November 5, 1982).

B. Invoice 14435, January 5, 1983. Costs incurred by ARCO Pipeline Company in connection with operation of [Hartford 10-inch pipeline]. Notation indicates invoice for repair to line leak which occurred 11/5/82 outside refinery property.)

C. Invoice 14625, April 20, 1983. Contractor invoices for permanent repairs of November, 1982 leak. (Attached memo estimates that November 5, 1982 leak lost 157 barrels and was due to failed temporary patch by Clark.)

D. Transmittal letter and Invoice, July 3, 1985. JR Sebastian, ARCO Pipe Line to Sinclair Marketing, attn. K. Grove. Costs incurred in connection with operation of pipe line between Clark refinery and APL Wood River Station. (For work rendered during May, 1985, apparently including contract services to excavate and repair leak.)

E. Invoice W-2379, January 22, 1986. (Notation indicates that line was pressure tested during October and November, 1985, and no leak was found.)

F. Correspondence from Ivan Huntoon, Pipeline Safety, Department of Transportation to Tom Powell, IEPA. Pressure test of Sinclair Pipeline from Clark Refinery to ARCO pump station, Hartford, Ill.

G. Correspondence, September 7, 1990. Cynthia Claus, ARCO Pipeline to Thomas Davis, Assistant Attorney General, State of Illinois. (ARCO identifies three spills dating to June 7, 1982, July 12, 1981, and January 8, 1981).

H. Sinclair Oil Corporation Summary of Known Leaks.

I. A. Hartford 10-inch pipeline chronology prepared by Sinclair Oil Corporation

Hartford 10-inch Pipeline Chronology
Sinclair Oil Corporation
November 7, 2003

Date	Event
1939	International Shoe enters agreement with O.H. Ingram and Fred. C. Koch to allow construction of [8-inch] pipelines across International Shoe switch track, sewer, and property. Agreement is subsequently conveyed to Sinclair Refining by Wood River Oil & Refining Company.
1950	Sinclair Refining purchases Hartford Refinery from Wood River Oil & Refining Co.
1952	Sinclair Refining obtains easement from Village of Hartford and others to build two 10-inch product lines from refinery to "Products Tank Farm, North Property." (to become Keller-Piasa terminal and ARCO pipeline station.)
Sept. 30, 1967	Sinclair Refining sells pipelines to Clark Wisconsin concurrent with sale of refinery to Clark. Pipeline Bill of Sale refers to: Two 10-inch pipelines and appurtenant facilities, 3120 feet; Three 8-inch pipelines, one 3-inch pipeline, and one unfinished 14-inch pipeline (1200 feet).
Before 1979	Keller-Piasa Terminal alleges that Clark 10-inch product line (north line) loses 360 barrels. per week. Line taken out of service.
April, 1979	Arco Pipeline conducts hydrostatic test of 10-inch pipeline. APL replaces 39 temporary repair clamps; APL finds additional 3-5 corrosion leaks by retesting; Leaks permanently repair by welding patches or full circle sleeves. Pipeline subsequently passes 24-hour, 500-800 psi hydrostatic test.
December 31, 1979	Sinclair Marketing executes agreement with ARCO pipeline for operation of 10-inch pipeline from Clark Refinery to ARCO Pipeline station at Keller-Piasa Terminal. Agreement applies to previous testing and repair work on pipeline performed by APL.
December, 1979	Clark authorizes Sinclair Marketing to use 10-inch line to temporarily implement terms of 12/13/79 exchange agreement pending resolution of right-of-way problems.
January,	Sinclair Marketing places 10-inch pipeline into service to transport product from

Hartford 10-inch Pipeline Chronology
Sinclair Oil Corporation
November 7, 2003

Date	Event
1980	Amoco Wood River refinery through Clark Refinery to ARCO Wood River pipeline station.
January, 1981	ARCO Pipeline reports release of 5 barrels (210 gallons) of gasoline from Hartford 10-inch pipeline. Pipeline is permanently repaired.
July, 1981	ARCO Pipeline reports release of 24 barrels of gasoline from Hartford 10-inch pipeline. Pipeline is permanently repaired.
September, 1981	Execution of Bill of Sale and Agreement to convey 10-inch pipeline from Clark Oil & Refining to Sinclair Marketing.
June, 1982	ARCO Pipeline reports release of 9 barrels of #2 Fuel Oil from Hartford 10-inch pipeline. Pipeline is permanently repaired.
November, 1982	ARCO Pipeline reports release of 157 barrels of diesel fuel from Hartford 10-inch pipeline. Pipeline is permanently repaired.
June, 1984	Sinclair Marketing terminates operation of 10-inch pipeline through Clark Refinery and Town of Hartford. Sinclair resumes supply of Mexico from Explorer pipeline via Keller-Piasa Terminal and ARCO Wood River Pipeline Station.
November, 1985	ARCO pipeline conducts pressure testing of Hartford 10-inch pipeline and finds no leak.
August, 1990	ARCO evacuates and tests 10-inch line at request of Sinclair and under oversight of DOT Pipeline safety: Pipeline was reportedly deactivated full of unleaded gasoline product at 50-60 psi; Sinclair expects to recover 560 bbls, but evacuates only 315 bbls. Pipeline fails nitrogen pressure test within 1-3 hours; Evacuation repeated in ~2 weeks with no significant recovery.
August, 1990	Total period of Sinclair/ARCO operation of pipeline: January, 1980 through May, 1984. Total known releases from Hartford 10-inch pipeline under Sinclair/ARCO operation: 166 barrels (6,972 gallons) of fuel oil; 241 barrels (11, 327 gallons) of unleaded gasoline; 29 barrels (1,218 gallons) of gasoline (type unknown).

Hartford 10-inch Pipeline Chronology Sinclair Oil Corporation November 7, 2003	
Date	Event
November, 1990	IEPA concludes that the Sinclair/ARCO 10-inch product line is also suspected of leaking, although [investigation results] do not indicate that this line is a major contributor to the plume. Further investigation by Sinclair/ARCO is warranted.

I. B. Affidavit of Corporate Succession, Sinclair Oil Corporation

11-16-87
DCS

SINCLAIR OIL CORPORATION

HISTORY OF CORPORATE SUCCESSION

A. By Certificate of Merger filed with the New York Department of State on September 30, 1968:

Sinclair Oil & Gas Company, a Maine corporation;
Sinclair Petrochemicals, Inc., a Delaware corporation;
Sinclair Refining Company, a Maine corporation; and
Sinclair Research, Inc., a Delaware corporation

were all merged into Sinclair Oil Corporation, a New York Corporation.

B. By Certificate of Merger filed with the Pennsylvania Department of State on March 4, 1969, Sinclair Oil Corporation, a New York corporation, was merged into Atlantic Richfield Company, a Pennsylvania corporation.

C. Pursuant to the provisions of a Consent Decree with the Department of Justice, on December 29, 1972, certain of the production, refining, pipeline and marketing assets acquired by Atlantic Richfield Company in the above merger were sold to Pasco, Inc., (a Delaware corporation formed April 17, 1947), and its subsidiaries, principally:

Pasco Marketing, Inc., a Delaware corporation, formed December 4, 1972;
Pasco Pipeline Company, a Delaware corporation, formed November 16, 1972

Other Pasco, Inc. subsidiaries:

Pasco Investment Company, a Delaware corporation, formed March 13, 1967, as Pan American Sulfur Company of Mississippi, name changed April 22, 1971;
Pasco Petroleum, Inc., a Delaware corporation, formed December 4, 1972;
Pasco Refining, Inc., a Delaware corporation, formed October 31, 1973.

Pasco, Inc. also acquired all of the stock of Sinclair Oil Corporation, a Delaware corporation, formed March 17, 1969, which was qualified in all of the continental United States. Its sole purpose was, and continues to be, the preservation of the name "Sinclair".

D. Pursuant to a plan of Complete Liquidation, on December 30, 1975, Pasco, Inc. sold all of its upstream production assets to Amoco Production Company.

E. Further pursuant to the Plan of Complete Liquidation, on July 1, 1976, substantially all of the remaining assets of Pasco, Inc. were sold to:

Sinclair Oil Corporation, a Wyoming corporation, formed on February 9, 1976.

Included in such sale were all of the outstanding shares of stock to the following corporations:

Pasco Pipeline Company, a Delaware corporation;
Pasco Marketing, Inc., a Delaware corporation;
Sinclair Oil Corporation, a Delaware corporation;
Pasco Petroleum, Inc., a Delaware corporation;
Pasco Investment Company, a Delaware corporation; and
Pasco Refining, Inc., a Delaware corporation.

On July 21, 1976, the names of certain of these subsidiaries were changes, as follows:

Pasco Pipeline Company became Sinclair Pipeline Company;
Pasco Marketing, Inc. became Sinclair Marketing, Inc.;
Pasco Petroleum, Inc. became Sinclair Petroleum, Inc..

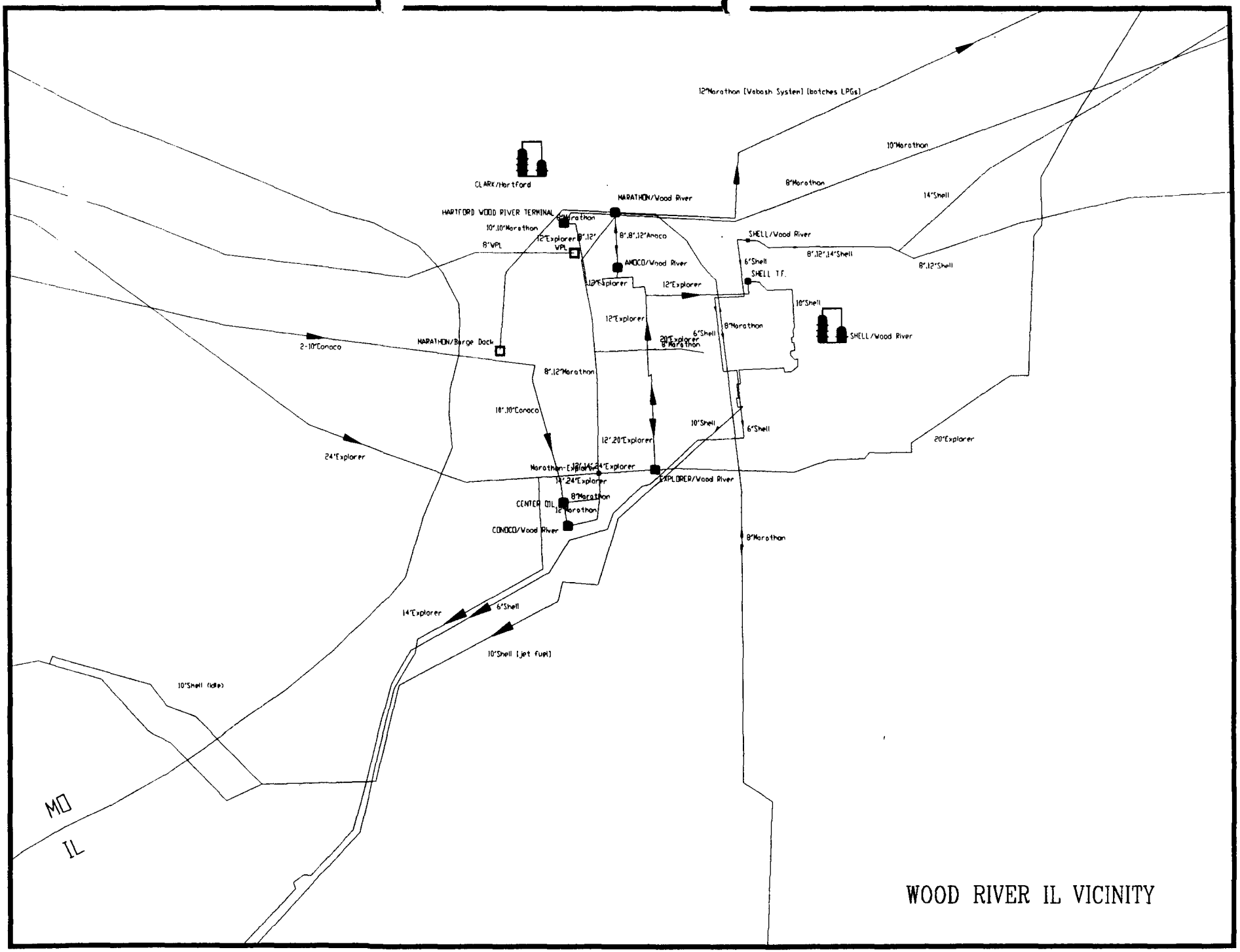
F. On December 13, 1976, a Certificate of Dissolution of Pasco, Inc. was filed in the State of Delaware, and on December 14, 1976, the Pasco Liquidating Trust was formed to dispose of the remaining assets of Pasco, Inc..

G. On December 30, 1986, Certificate of Merger were filed with the office of the Wyoming Secretary of State under plans and Agreements of Merger with Sinclair Oil Corporation, a Wyoming Corporation, as the surviving corporation for the following entities:

Little America Refining Company
Sinclair Marketing, Inc.
Sinclair Pipeline Company
Sinclair Oil Corporation
Sinclair Petroleum Inc. (Inactive)
Pasco Refining, Inc. (Inactive)
Pasco Investment Company (Inactive)
Sun Valley Company

Following the Merger, those previously active corporations continued as d/b/a's of Sinclair Oil Corporation.

I.C. (Untitled Pipeline Schematic) Wood River Il Vicinity


12"Marathon [Wabash System] [batches LPGs]
10"Marathon
8"Marathon
14"Shell
CLARK/Hartford
MARATHON/Wood River
HARTFORD WOOD RIVER TERMINAL
10",10"Marathon
12"Explorer
8",12"
8",8",12"Amoco
SHELL/Wood River
8"VPL
VPL
AMOCO/Wood River
6"Shell
8",12",14"Shell
8",12"Shell
SHELL T.F.
12"Explorer
12"Explorer
10"Shell
12"Explorer
6"Shell
8"Marathon
SHELL/Wood River
2-10"Conoco
MARATHON/Barge Dock
20"Explorer
8"Marathon
8",12"Marathon
18",10"Conoco
10"Shell
6"Shell
12",20"Explorer
20"Explorer
24"Explorer
Marathon-Explorer
14",24"Explorer
EXPLORER/Wood River
8"Marathon
CENTER OIL
CONOCO/Wood River
8"Marathon
14"Explorer
6"Shell
10"Shell [jet fuel]
10"Shell (idle)
MO
IL
WOOD RIVER IL VICINITY

I.D. Marathon-Explorer Tie-in at ARCO, July 28, 1978

Eastern Division

Marathon
Pipe Line Company

P.O. Box F
Martinsville, Illinois 62442
Telephone 217/382-4911

August 1, 1978

Arco Pipe Line Company
P. O. Box 247
Carrollton, Missouri 64633

Attn: Mr. Gene McEntire

Dear Sir:

Please find enclosed two (2) copies of the print showing the location of the Marathon-Explorer tie-in at your Wood River area terminal.

If you should have any questions or comments, do not hesitate to contact me at 217/382-4911.

Sincerely,

Mark A. Blando

Mark A. Blando
Associate Engineer

MAB/dd

Enclosures

MARATHON PIPE LINE COMPANY

EASTERN DIVISION — MARTINSVILLE, ILLINOIS

DRAFTSMAN	DATE	REVISIONS

MARATHON EXPLORER TIE-IN AT ARCO

WOOD RIVER AREA

DRAWN BY	APPROVED BY	DATE	SCALE	JOB NUMBER	DRAWING NUMBER	FILE NUMBER
JTN	B	7-28-78	1/4 = 12"	6468		

II.A. Bill of Sale, September 30, 1967. Sinclair Refining Company (Maine) to Clark Oil & Refining Corporation (Wisconsin) (Sale of Hartford Pipelines to Clark)

BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS that SINCLAIR REFINING COMPANY, a Maine corporation, (hereinafter called "Vendor"), for the sum of TEN AND NO/100 ($10.00) DOLLARS and other good and valuable consideration, the receipt of which is hereby acknowledged, hereby bargains, sells, assigns and transfers to CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, (hereinafter called "Vendee") authorized to transact business in the State of Illinois, the following described personal property owned by Vendor, located on and used in connection with the operation of Vendor's Hartford, Illinois Refinery premises as of 8:00 a.m., C.D.S.T. on the date hereof, to-wit:

(a) all material, other than crude oil and products inventory, stored in said premises' warehouses, together with tetraethyl lead, caustic and catalysts in processing units on such premises, office supplies and equipment; and

(b) all automotive equipment, tools, spare parts, fittings on hand, communication equipment, and

(c) two lines of 10" pipe and facilities appurtenant thereto located on Easement granted September 30, 1967 by Vendor to Vendee on Vendor's tank farm premises north of aforesaid refinery premises.

TO HAVE AND TO HOLD said property unto Vendee, its successors and assigns for its own proper use and behoof forever, and said Vendor does hereby covenant itself to be the true and lawful owner of said property and to have full power, good right and lawful authority to sell and dispose of the same in the manner aforesaid; and covenants and agrees that said property is free and clear of and from all other and

former grants, encumbrances, liens, levies, judgments, and of and from taxes and assessments of any kind or nature other than ad valorem taxes for the tax year 1967 and thereafter, and Vendor and Vendee agree, as to such taxes, the same shall be prorated between the parties on the basis of taxes for the year 1966, the date of proration to be September 30, 1967; and Vendor covenants and agrees to and with Vendee to warrant and defend the said property to said Vendee, its successors and assigns against the lawful claims and demands of every and all person and persons whomsoever; it being understood that this warranty extends only to Vendor's title and right to sell and dispose of said property and that Vendor does not, either expressly or impliedly warrant or guarantee the materials, workmanship or completeness thereof nor its fitness or condition for any purpose.

Vendor agrees without the payment of any additional consideration and upon the request of Vendee, to execute specific bills of sales, specific assignments of title or other documents which are necessary to place ownership of such personal property in Vendee or to comply with the laws of the State of Illinois.

WITNESS the hand and seal of Vendor attested this 30th day of September, 1967.

ATTEST: SINCLAIR REFINING COMPANY

E Eagles
Secretary

By [signature] Dkn
Vice President

STATE OF NEW YORK)
) SS.
COUNTY OF NEW YORK)

I, ALBERT V. NOLAN, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY that

R. M. Cooper, a Vice President of SINCLAIR REFINING COMPANY, and E. Eagles, an ~~Assistant~~ Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and ~~Assistant~~ Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said ~~Assistant~~ Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 30th day of September, 1967.

Notary Public

My commission expires:

ALBERT V. NOLAN
Notary Public, State of New York
#30-8152600 - Qual. in Nassau Co.
Cert. Filed with N. Y. Co. Clerk
Term Expires March 30, 1968

II.B. Grant and Conveyance, September 30, 1967. Sinclair Refining Company (Maine) to Clark Oil & Refining Corporation (Wisconsin). (Conveyance of Hartford Pipelines to Clark).

GRANT AND CONVEYANCE

LIBER 2514 PAGE 642

173 2844

KNOW ALL MEN BY THESE PRESENTS: That SINCLAIR REFINING COMPANY, a Maine corporation, authorized to transact business in the State of Illinois, hereinafter called "Grantor", in consideration of the sum of ONE DOLLAR ($1.00) and other good and valuable considerations, receipt of which is hereby acknowledged, does hereby GRANT, BARGAIN, SELL and CONVEY, unto CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, authorized to do business in the State of Illinois, its successors and assigns, hereinafter called "Grantee", all the right, title, interest and estate of Grantor in the following described pipelines, together with all structures, equipment, machinery, appliances and appurtenances of every kind whatsoever forming part of said pipelines or used or for use in connection therewith, including, but not limited to, all fittings, valves, connections, pipes, regulators, meters, measuring stations, engines and pumps, to-wit:

(a) Two 10" pipelines extending west and northerly a distance of approximately 3,120 feet from the west line of a tract of land located in Section 34, Township 5 North, Range 9 West, as described in Deed recorded in Book 1230, Page 37, of Deed Records of Madison County, Illinois to the southerly line of Grantor's tank farm premises, as described in Deed recorded in Book 1087, Page 558, of Deed Records of Madison County, Illinois.

(b) Three 8" pipelines, one 3" pipeline, and an unfinished 14" pipeline (1200 feet more or less) extending west a distance of approximately 4,700 feet from the west line of a tract of land located in Section 34, Township 5 North, Range 9 West as described in Deed recorded in Book 1230, Page 37, of Deed Records of Madison County, Illinois, to the east bank of the Mississippi River.

For the consideration hereunder Grantor does further GRANT and CONVEY unto Grantee all easements, rights-of-way, easement agreements, licenses, permits, grants and consents, prescription rights and servitude of whatsoever nature for and in connection with the construction, maintenance, use and/or operation of above described pipelines.

TO HAVE AND TO HOLD all of said rights, titles, interests, properties and assets unto the said Grantee, its successors and assigns forever; and Grantor in making this Grant and Conveyance covenants only that it has good right and lawful authority to sell and dispose of its interest in and to the above described pipelines, appurtenances, rights-of-way, easements and interests; that said pipelines and appurtenances are believed to be in good condition and are conveyed as is, where is and without warranty of merchantability or fitness or representation of any character whatsoever that the same or any part thereof will operate or perform any given function; and subject to the Grantor obtaining consent to any transfer of such permits and licenses as require consent; provided also that ad valorem taxes against the said pipelines and premises for the year 1967 have been prorated as of September 30, 1967 and are assumed by Grantee.

This Grant and Conveyance is supplementary to a Warranty Deed dated September 29th, 1967 from Grantor to Grantee conveying certain real estate in Madison County, Illinois and no additional consideration was paid for the execution of this Grant and Conveyance.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed and attested with its corporate

seal hereunto affixed, by and through its proper officers thereunto duly authorized this the 30th day of September, 1967.

SINCLAIR REFINING COMPANY

By _____ Vice President

ATTEST;

_____ Secretary

STATE OF NEW YORK)
) SS.
COUNTY OF NEW YORK)

I, ALBERT V. NOLAN, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY that R.M. COOPER, a Vice President of SINCLAIR REFINING COMPANY, and E. EAGLES, an ~~Assistant~~ Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and ~~Assistant~~ Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said ~~Assistant~~ Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 30th day of September, 1967.

_____
Notary Public

My commission expires:

ALBERT V. NOLAN
Notary Public, State of New York
#30-8152600 - Qual. in Nassau Co.
Cert. Filed with N. Y. Co. Clerk
Term Expires March 30, 1968

FILED FOR RECORD THIS 5th DAY OF October A.D. 19 67 AT 2 O'CLOCK P M

II.C Easement, Sinclair Refining Company (Maine) to Clark Oil & Refining Corporation (Wisconsin), across Sinclair Parcel 12. September 30, 1967.

E A S E M E N T

STATE OF NEW YORK)
) KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF NEW YORK)

173-2845

That SINCLAIR REFINING COMPANY, a Maine corporation, authorized to transact business as a foreign corporation in the State of Illinois, having its principal business office at 600 Fifth Avenue, New York, New York 10020, hereinafter referred to as "Grantor", for and in consideration of the sum of TEN AND 00/100 ($10.00) DOLLARS and other valuable considerations, and of the conditions, covenants and agreements to be kept, observed and performed as hereinafter set forth by CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, having its principal business office at 8530 West National Avenue, Milwaukee, Wisconsin 53227, hereinafter referred to as "Grantee", does hereby, subject to the continuing fulfillment of the consideration aforesaid, give, grant and convey unto the said Grantee an easement to construct, maintain, operate, repair, replace and remove two 10" pipelines and appurtenant facilities for the transportation of petroleum products over, through, under and across a tract called "Sinclair Parcel 12" being:

> A tract of land in the Northeast Quarter (N.E. 1/4) of Section 33, Township 5 North, Range 9 West of the Third Principal Meridian, described as follows: Beginning at a point in the westerly right-of-way line of the Illinois Terminal Railroad at a distance of 396.2 feet South 21° 14' East from the intersection of said right-of-way line with the north line of said quarter section; thence from said beginning point west, parallel to the north line of said quarter section a distance of 230.84 feet to the intersection with the easterly line of the Alton St. Louis Road, known as S.B.I. Rt. #3; thence South 17° 50' East along said line a distance of 704.75 feet, thence South 6° 20' East along said road line a distance of 1257.05 feet; thence South 33° 22' East along said road line a distance of 74.2 feet; thence South 49° 44' East along said road line a distance of 278 feet; thence South 89° 12' East parallel to and 265.5 feet north of the

south line of said quarter section 33 a distance of 412.15 feet to the intersection with the westerly right-of-way line of the Illinois Terminal Railroad; thence northwesterly along said right-of-way line on a 2° 30' curve a distance of 350.3 feet; thence North 21° 14' West along said right-of-way line, parallel to and 150 feet westerly from the center line of the Gulf, Mobile & Ohio Railroad tracks (formerly Chicago & Alton Railroad) a distance of 1959.68 feet to the point of beginning.

Said easement to consist of eight segments (as shown on Sinclair Drawing No. WR-000, FB-94, attached hereto) the center line of each of which is described as follows:

SEGMENT I

BEGINNING at the most southeasterly corner of Sinclair Parcel 12, said corner being in thewesterly right-of-way line of the Illinois Terminal Railroad, thence northwesterly along the easterly boundary of Sinclair Parcel 12 on a 2°30' curve 7 feet to the point of beginning; thence, North 89°12' West, parallel to the southerly boundary of Sinclair Parcel 12 a distance of 163 feet to Point A, thence North 21°14' West 546 feet to Point B, thence North 21°14' West 472.8 feet to Point C, thence North 21°14' West 164 feet to Point D, thence North 68°46' East 16.1 feet to Point E, thence North 68°46' East 57.9 feet to Point F, thence North 21°14' West 60 feet to Point G, thence North 21°14' West 150.6 feet to Point H, thence North 21°14' West 149.2 feet to Point I, thence North 21°14' West 6.4 feet to Point J, which is the end of Segment I.

SEGMENT II

BEGINNING at Point B of Segment I, thence North 68°46' East 16.8 feet to end of Segment II, which is nearest face of valve on Tank 80-8.

SEGMENT III

BEGINNING at Point C of Segment I, thence North 68°46' East 16.2 feet to end of Segment II, which is nearest face of valve on Tank 80-7.

SEGMENT IV

BEGINNING at Point E of Segment I, thence North 21°14' West to a point, thence South 68°46' West 4 feet to end of Segment IV, which is nearest face of valve on Tank 20-7.

SEGMENT V

BEGINNING at Point G of Segment I, thence North 68°46' East 16.8 feet to end of Segment V, which is nearest face of valve on Tank 20-6.

SEGMENT

BEGINNING at Point H of Segment I, thence North 68°46' East 19.8 feet to end of Segment VI, which is nearest face of valve on Tank 20-5.

SEGMENT VII

BEGINNING at Point H of Segment I, thence South 68°46' West 57.6 feet to end of Segment VII, which is nearest face of valve on Tank 10-15.

SEGMENT VIII

BEGINNING at Point I of Segment I, thence North 68°46' East 20.4 feet to end of Segment VIII, which is nearest face of valve on Tank 20-4.

Segment I of such easement shall extend two feet on each side of above described centerline for a total width of 4 feet.

Segment II and Segment III of such easement shall extend three feet on each side of above described centerlines for a total width of 6 feet.

Segment IV, Segment V, Segment VI, Segment VII, and Segment VIII of such easement shall extend one foot on each side of above described centerlines for total width of 2 feet.

TO HAVE AND TO HOLD the above described easement unto the said Grantee, its successors and assigns, subject, however, to the following conditions, covenants and agreements:

1. This easement shall be effective from the date of execution hereof and shall terminate at any time in the event of the following: (a) at such time as Grantee shall surrender possession of the property covered hereby, or (b) when Grantee shall cease to use the same for the purposes herein specified for a continuous period of one year, or (c) upon Grantee's default in the performance of any of its covenants or agreements herein set forth, or (d) should Grantor direct the relocation of this easement as in paragraph 3 below provided. Upon termination of this easement all rights herein granted shall revert to Grantor, its

successors or assigns; and if requested Grantee shall forthwith execute and deliver a release and surrender of this easement.

2. In the construction, maintenance, operation, repair, and removal of said pipelines and appurtenant facilities, Grantee may utilize so much of Grantor's abutting real estate as shall be appropriate in so doing, provided, however, that Grantee shall not interfere unreasonably with the paramount right of Grantor in and to the use of such real estate. Grantee when engaged in the aforesaid work shall also have the right of ingress to and egress from said easement through Grantor's regular gates and over the roads or along the route customarily used or designated therefor by Grantor.

3. If at any time, in the opinion of Grantor, it is necessary to move said pipelines and appurtenant facilities to avoid interference with Grantor's use or intended use of the real estate on which said easement lies, Grantee will remove and relocate said pipelines and appurtenant facilities to the location as designated by Grantor, the necessary expense incurred in such removal and relocation to be paid by Grantor. Grantee shall have ninety (90) days after written notice within which to remove or relocate said pipelines and appurtenant facilities. In the event of moving of said pipelines and appurtenant facilities or any part thereof to another location on said Grantor's real estate, Grantor will execute and deliver to Grantee a substitute or supplemental grant of easement designating the relocated route, which grant will be subject to all the terms and conditions of this easement, and upon

the delivery of which Grantee's easement in the above-described real estate shall thereupon cease and terminate.

4. Grantee, hereby releases, relinquishes and discharges and agrees to indemnify, protect and save harmless Grantor of and from any and all claims, demands and liability for any loss, damage or injury to, including the death of, persons (whether they be third persons or employees of either of the parties hereto) and other like or different casualty to property (whether it be that of either of the parties hereto or of third persons) caused by, growing out of or happening in connection with Grantee's operation, patrol, repair or removal of said pipelines and appurtenant facilities or the use and occupancy of the easement, structures, equipment or appliances located or to be located thereon, or by reason of any other casualty whether due to the negligence of Grantor or otherwise.

5. Grantor reserves the right to use its real estate for all purposes not inconsistent with this grant. Grantee accepts this grant subject to all prior easements, leases or other interests in the above described real estate created by Grantor or its predecessors in title whether the same be of record or not, and all rights conferred by this grant shall be exercised so as to avoid unreasonable interference with any of said prior easements, leases or other interests.

6. Pipelines and appurtenant facilities shall be constructed, maintained, operated, repaired, replaced, and removed in a good and workmanlike manner and the

underground portion of said pipelines shall continue to be buried at a depth so that the top of any casing shall be not less than the present distance of the lines below the surface of the ground at all points and the surface of the ground over said pipelines shall always be restored to and kept in its present level condition as nearly as may be practicable. All construction, maintenance, relocation and removal work shall be done in accordance with the applicable Illinois State laws and regulations and in a manner subject to Grantor's approval. Grantor, in giving any such approval shall be acting on its own behalf and not as agent of Grantee. In the performance of any work by Grantee it shall do no act nor make any representation to any person that Grantee, its agents or representatives, is the principal or agent of Grantor in any particular.

7. Upon the termination of this easement Grantee agrees, at its expense, to promptly remove from Grantor's lands said pipelines and appurtenant facilities and thereafter to restore said lands to the condition existing before the installation of said pipelines and appurtenant facilities.

8. From the date hereof Grantee agrees to pay all taxes which may be levied or assessed on said pipelines and appurtenant facilities and Grantee further agrees to reimburse Grantor for the amount of any taxes which may be assessed thereaf against Grantor by reason of the location of said pipelines and appurtenant facilities upon the real estate of Grantor covered by this easement.

9. Grantee agrees to observe all rules and regulations that have been or may hereafter be promulgated by Grantor for the conduct of individuals while on Grantor's

property, including but not limited to rules or regulations with respect to acts or practices deemed hazardous, and also agrees to enforce compliance therewith by its employees, agents and invitees.

10. All notices given under this easement shall be in writing, and may be given either in the statutory method, if any, in the State where Grantor's real estate is situated, or by sending such notice by registered mail properly addressed to the part to be notified, at such party's address as shown in this easement, or at such party's last known address. The day upon which such notice is mailed shall be treated as the date of service.

11. The terms and conditions hereof shall be binding upon and shall inure to the benefit of the parties hereto, their successors and assigns; provided, however, that the easement and rights herein granted to Grantee shall not be assigned in whole or in part without the consent of Grantor in writing first obtained.

IN WITNESS WHEREOF said Grantor has caused these presents to be duly executed and attested by its proper officers thereunto duly authorized; and said Grantee, in evidence of its acceptance of this grant, upon the terms and conditions hereinabove specified has likewise caused these presents to be executed and attested with its corporate seal hereunto affixed by and through its proper officers thereunto duly authorized, all as of this 30th day of September, 1967.

ATTEST: SINCLAIR REFINING COMPANY, Grantor

Assistant Secretary By Vice President

ATTEST: CLARK OIL & REFINING CORPORATION, Grantee

George T. Wormley, Secretary By Emory T. Clark, President

STATE OF ~~NEW YORK~~)
ILLINOIS) SS.
COUNTY OF ~~NEW YORK~~)
COOK

I, LINCOLN H. NELSON, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY that R. M. COOPER, a Vice President of SINCLAIR REFINING COMPANY, and P. J. O'NEIL, an Assistant Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Assistant Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said Assistant Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 30th day of September, 1967.

Notary Public

My commission expires:
March 11, 1968.

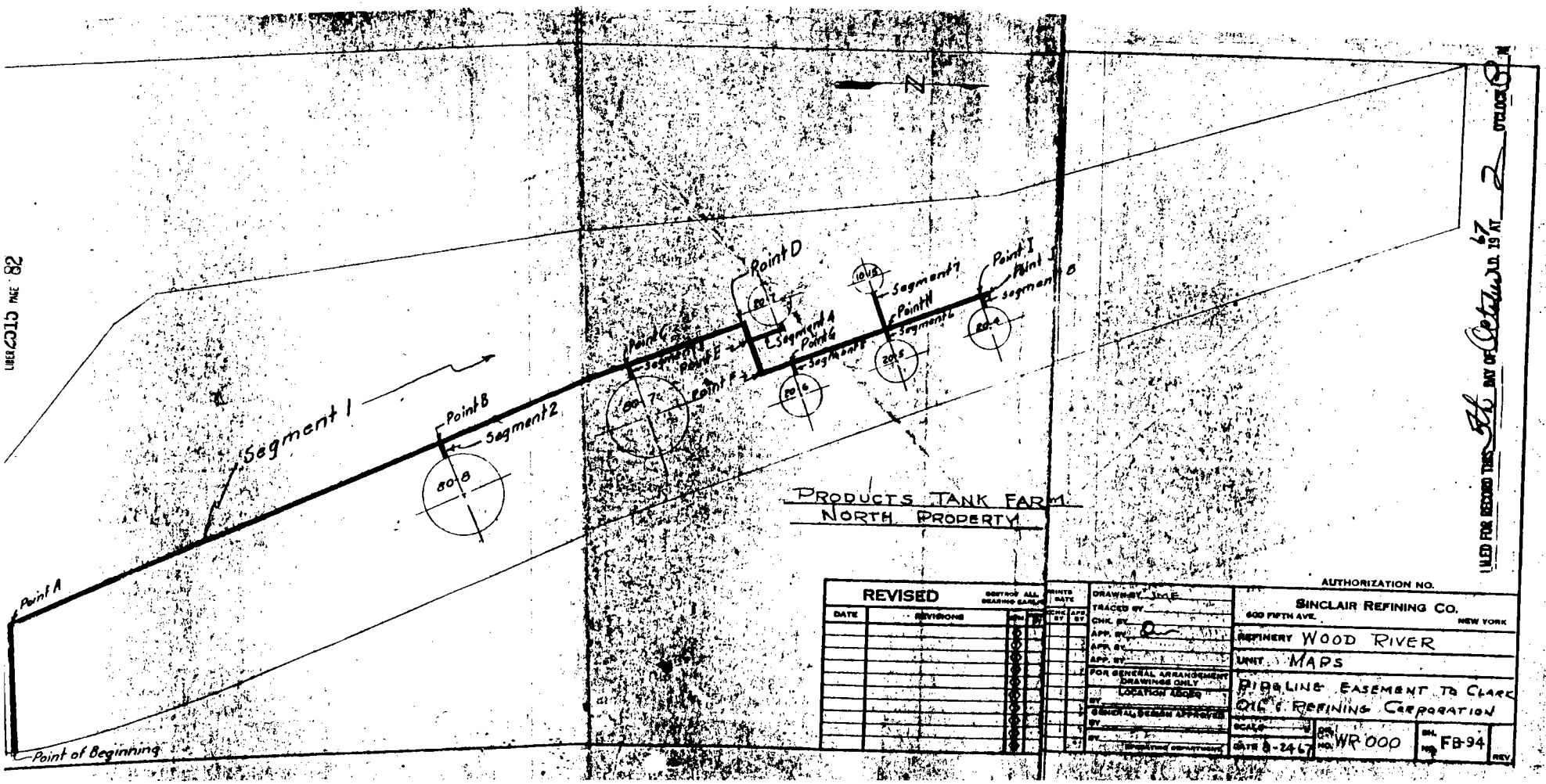
STATE OF WISCONSIN)
) SS.
COUNTY OF MILWAUKEE)

I, Frances R.Remshak, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that EMORY T. CLARK, President of CLARK OIL & REFINING CORPORATION, and GEORGE T.WORMLEY, Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such President and Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said George T. Wormley then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 30th day of September, 1967.

Frances R Remshak
Notary Public

My commission expires:
October 15, 1967



FILED FOR RECORD THIS 2 DAY OF October A.D. 19 67 AT 2 O'CLOCK P.M.

II.D. Easement from Keller-Piasa Terminal, Inc. to Clark Oil & Refining Corporation (Wisconsin) and Sinclair Marketing, Inc. (Delaware).

STATE OF ILLINOIS)
) SS.
COUNTY OF MADISON)

EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That KELLER-PIASA TERMINAL, INC., a Missouri corporation, authorized to transact business as a foreign corporation in the State of Illinois, having its principal business office at Route 3, Highway 111, Hartford, Illinois 62048, hereinafter referred to as "GRANTOR", for and in consideration of the sum of TEN DOLLARS ($10.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and in further consideration of the conditions, covenants and benefits hereof does hereby CONVEY and QUITCLAIM unto CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, duly authorized to transact business in the State of Illinois, having its principal business office at 8530 West National Avenue, Milwaukee, Wisconsin; and SINCLAIR MARKETING INC., a Delaware Corporation, having its principal business office at 750 West Hampden Avenue, Englewood, Colorado, hereinafter referred to as "GRANTEE", subject to the continuing fulfillment by GRANTEE of the consideration and the promises, covenants and conditions hereof, an easement in common to use, maintain, operate, repair and replace two 10" pipelines (shown on Clark drawing WR000DB141, attached hereto) and appurtenant facilities for the transportation of petroleum products, over, through, under and across the premises of GRANTOR more particularly described as follows, to wit:

In the NorthEast Quarter (NE 1/4) of Section 33 Township 5 North, Range 9 West of the 3rd P.M., described as follows: BEGINNING at a point in the Westerly right-of-way line of Illinois Terminal Railroad, being South 21°-14' East 396.2 feet from the intersection of said right-of-way line with the North line of said Quarter Section; running thence (1) along said right-of-way line the following two courses and distances: (a) South 21°-14'-45" East 1959.97 feet to an iron pipe; and (b) along a curve to the right, having a radius of 2291.83 feet and a chord bearing and distance of South 12°-43'-17" East 349.80 feet, to an iron pipe; thence (2) North 89°-04'-48" West 411.93 feet to an iron pipe; thence (3) North 49°-36'-48" West 277.89 feet to an axle; thence (4) North 33°-14'-48" West 74.26 feet to an axle in the Easterly right of-way line of Old Alton-St. Louis Road (Illinois Route 3); thence (5) along said line of Old Alton-St. Louis Road, North 06°-19'-07" West 316.78 feet to an iron pipe in line of land now or formerly of ARCO Pipe Line Company; thence (6) along said land of ARCO Pipe Line Company the following three courses and distances:
(a) North 68°-58'-53" East 223.82 feet to an iron pipe; (b) North 21°-13'-07" West 444.60 feet to an iron pipe, and (c) South 69°-19'-53" West 105.46 feet to an iron pipe in said line of Old Alton-St. Louis Road; thence (7) along said line of Old Alton-St. Louis Road the following two courses and distances: (a) North 06°-19'-07" West 479.30 feet to an iron pipe; and (b) North 17°-50'-00" West 704.42 feet to an axle; and thence (8) South 89°-58'-10" East 230.99 feet to the place of BEGINNING.

Situated in the county of Madison, and State of Illinois.

The easement hereby conveyed as shown on the drawing attached hereto, shall be 10 feet in width, the center line thereof being more particularly described as follows, to wit:

> BEGINNING at the most Southeasterly corner of Parcel 12, said corner being in the Westerly right-of-way line of the Illinois Terminal Railroad, thence Northwesterly along the Easterly boundry of Parcel 12 on a 2°-30' curve 7 feet to the point of beginning; thence North 89°-12' West, parallel to the Southerly boundry of Parcel 12 a distance of 163 feet to Point A, thence North 21°-14' West 546 feet to Point B; situated in Madison County, Illinois.

Each Grantee to have and to hold its interest in the above-described easement subject to the following conditions, covenants and agreements, which each Grantee expressly hereby, and by its acceptance and use of the subject easement, agrees to perform to wit:

1. This easement shall be effective from the date of execution hereof and shall terminate at any time in the event of the following: (a) at such time as GRANTEE shall surrender possession of the property covered hereby, or (b) when GRANTEE shall cease to use the same for the purposes herein specified for a con tinuous period of one year, or (c) upon GRANTEE'S default in the performance of any of its covenants or agreements herein set forth, or (d) should GRANTOR be compelled to relocate this easement as in paragraph 3 below provided. Termination pursuant to this provision shall be effective only in the event: (a) GRANTOR shall notify GRANTEE in writing of such termination, and (b) GRANTEE fails to cure the cause of such termination within six (6) months of notification. Upon termination of this easement all rights herein granted shall revert to GRANTOR, its successors or assigns; and if requested GRANTEE shall forthwith execute and deliver a release and surrender of this easement.

2. In the construction, maintenance, operation, repair, and removal of said pipeline and appurtenant facilities GRANTEE may utilize so much of the abutting real estate as GRANTOR shall permit provided, however, that GRANTEE shall not interfere with the right of GRANTOR or any other person or party in and to the use of such real estate. GRANTEE when engaged in the aforesaid work shall also have the right of ingress to and egress from said easement through GRANTOR'S regular gates and over the roads or along the route customarily used or designated therefor by GRANTOR.

3. In the event GRANTOR is compelled by court order or similar cause, to move said pipelines and appurtenant facilities, GRANTEE will remove and relocate said pipelines and appurtenant facilities to the location as designated by GRANTOR, the necessary expense incurred in such removal and relocation to be paid by GRANTEE. GRANTEE shall have ninety (90) days after written notice within which to remove or relocate said pipelines and appurtenant facilities. In the event of moving of said pipelines and appurtenant facilities or any part thereof to another location on said GRANTOR'S real estate, GRANTOR will execute and deliver to GRANTEE a substitute or supplemental grant of easement desig-

nating the relocated route, which grant will be subject to all the terms and conditions of this easement, and upon the delivery of which GRANTEE'S easement in the above-described real estate shall thereupon cease and terminate.

4. GRANTEE, hereby releases, relinquishes, and discharges and agrees to indemnify, protect and save harmless GRANTOR of and from any and all claims, rights, causes of action, demands and liabilities, including court costs and reasonable attorney's fees for any loss, damage or injury to, including the death of, persons (whether they be third persons or employees of either of the parties hereto) and other like or different casualty to property (whether it be that of either parties hereto or of third persons), and any and all other claims, rights, causes of action, demands and liabilities of every other nature whatever, caused by, growing out of or relating in any way to GRANTEE'S construction, use, operation, occupation, patrol, repair or removal of said pipelines and appurtenant facilities or the use and occupancy of the easement, structures, equipment or appliances located or to be located thereon, or by reason of any other casualty whether due to the negligence of GRANTOR or otherwise.

5. GRANTOR reserves the right to use its real estate for all purposes not inconsistent with this grant. GRANTEE accepts this grant subject to all prior easements, leases or other interests in the above-described real estate created by GRANTOR or its predecessors in title whether the same be of record or not, and all rights conferred by this grant shall be exercised so as to avoid interference with any of said prior easements, leases or other interests.

6. All pipelines and appurtenant facilities shall be constructed, maintained, operated, repaired, replaced, and removed by GRANTEE in a good and workmanlike manner and the underground portion of said pipelines shall continue to be buried at a depth so that the top of any casing shall be not less than the present distance of the lines below the surface of the ground at all points and the surface of the ground over said pipelines shall always be restored to and kept in its present level condition. All construction, maintenance, relocation and removal work shall be done in accordance with the applicable Federal, State and local laws and regulations and in a manner subject to GRANTOR's approval. GRANTOR, in giving any such approval shall be acting on its own behalf and not as agent of GRANTEE. In the performance of any work by GRANTEE it shall do no act nor make any representation to any person that GRANTEE, its agents or representatives, is the principal or agent of GRANTOR in any particular.

7. Upon notice and termination of this easement pursuant to paragraph one above, GRANTEE agrees to perform either of the following: (a) to convey said pipelines and appurtenant facilities to GRANTOR or (b) to remove from the real estate covered by this easement, at its expense, said pipelines and appurtenant facilities and thereafter to restore said lands to the conditions existing before the installation of said pipelines and appurtenant facilities.

8. From the date hereof GRANTEE agrees to pay all taxes which may be levied or assessed on said pipelines and appurtenant facilities and GRANTEE further agrees to reimburse GRANTOR or any other landowner for the amount of any taxes which may be assessed thereafter by reason of the location of said pipelines and appurtenant facilities upon the real estate covered by this easement.

9. GRANTEE agrees to observe all statutes, laws, ordinances, rules and regulations of any governmental entity or agency having jurisdiction of the subject premises and all rules that have been or may hereafter be promulgated by GRANTOR for the conduct of individuals while on GRANTOR'S property, including but not limited to rules or regulations with respect to acts or practices deemed hazardous, and also agrees to enforce compliance therewith by its employees, agents and invitees.

10. GRANTEE shall cause or suffer no claim for Mechanic's or Materialmen's liens to be placed against GRANTOR'S title to the subject premises by reason of any act or omission of GRANTEE or any person, firm or corporation acting on behalf of GRANTEE in the use or occupancy of the easement hereby conveyed or in the construction, repair, operation, maintenance or replacement of existing or future pipelines therein.

11. All notices given under this easement shall be in writing, and may be given either in the statutory method, if any, in the State where GRANTOR'S real estate is situated, or by sending such notice by registered mail properly addressed to the party to be notified, at such party's address as shown in this easement, or at such party's last known address. The day upon which such notice is mailed shall be treated as the date of service.

12. The terms and conditions hereof shall be binding upon and shall inure to the benefit of GRANTOR and GRANTEE, their successors and assigns; provided, however, that the easement and rights herein granted to GRANTEE shall not be assigned in whole or in part without the consent of GRANTOR in writing first obtained.

13. The parties hereto acknowledge that the easement subject hereof has been hereby granted to each of the corporations above named as GRANTEE in common, for the continued use, operation, repair, and replacement of two 10" pipelines now existing upon the subject premises. It is further acknowledged that the parties intend hereby to vest co-equal rights and estates in each of the GRANTEES above named, but that as against GRANTOR and CLARK OIL & REFINING CORPORATION, said SINCLAIR MARKETING INC. shall have the exclusive rights and estates hereof with respect to the Southerly of such 10" pipelines, and that as against GRANTOR and SINCLAIR MARKETING INC. said CLARK OIL & REFINING CORPORATION shall have such exclusive rights and estates with respect to the Northerly of such 10" pipelines. It is further acknowledged and agreed that

the provisions of paragraph one hereof with respect to termination of the rights of GRANTEE may apply, in appropriate case, so as to terminate the rights of either of such GRANTEE corporations by reason of the act or default of such terminated corporation proscribed by the terms of said paragraph one, without affect upon the continued rights and interests in estates of the remaining GRANTEE corporation.

14. It is expressly agreed, notwithstanding any other provision of this agreement, that no right is hereby granted for the construction, repair, operation or maintenance of any pipeline in addition to existing 10" pipelines upon the premises, but that such construction as might be necessary for the operation, repair, maintenance and replacement of either or both of said two existing 10" pipelines is hereby permitted.

IN WITNESS WHEREOF said GRANTOR has caused these presents to be duly executed and attested by its proper officers thereunto duly authorized; and said GRANTEE, in evidence of its acceptance of this grant, upon the terms and conditions hereinabove specified has likewise caused these presents to be executed and attested with its corporate seal hereunto affixed by and through its proper officers therunto duly authorized, all as of this 4th day of November, 1980.

KELLER-PIASA TERMINAL, INCORPORATED,
Grantor

By _____

ATTEST:

_____
Asst. Secretary

CLARK OIL & REFINING CORPORATION,
Grantee

By _____
R.P. Nelson, Vice President

ATTEST:

_____
Harold J. Lessner, Secretary

SINCLAIR MARKETING INC
Grantee

By _____ JZC

ATTEST:

_____
Secretary

STATE OF WISCONSIN)
MILWAUKEE) SS.
COUNTY OF ~~MADISON~~)

I, DIANE KAY BORTZ the undersigned Notary Public, in and for and residing in the said county and in the state aforesaid, DO HEREBY CERTIFY THAT R.P. Nelson, personally known to me to be the Vice-President of CLARK OIL & REFINING CORPORATION, a Wisconsin corporation and Harold J. Lessner, personally known to me to be the Secretary of said corporation, whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Vice-President and Secretary, they signed and delivered the said instrument of writing as Vice-President and as Secretary of said corporation and caused the seal of said corporation to be affixed thereto pursuant to authority by the Board of Directors of said corporation as their free and voluntary act and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 4th Day of November, A.D. 1980.

Diane Kay Bortz
Notary Public
State of Wisconsin
My Commission Expires: 1/29/84

STATE OF ILLINOIS)
) SS.
COUNTY OF MADISON)

I, Jerald K. Niemeier, the under signed Notary Public, in and for and residing in the said county and in the state aforesaid, DO HEREBY CERTIFY that Robert W. Scrimpf, personally known to me to be the President of KELLER-PIASA TERMINAL, INC., a Missouri corporation and R. William Schrimpf, personally known to me to be the Secretary of said corporation, whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such President and Secretary, they signed and delivered the said instrument of writing as President and as Secretary of said corporation, and caused the seal of said corporation to be affixed thereto pursuant to authority by the Board of Directors of said corporation as their free and voluntary act and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 19th day of December, A.D. 1980.

Jerald K. Niemeier
Notary Public
My Commission Expires April 15, 1982

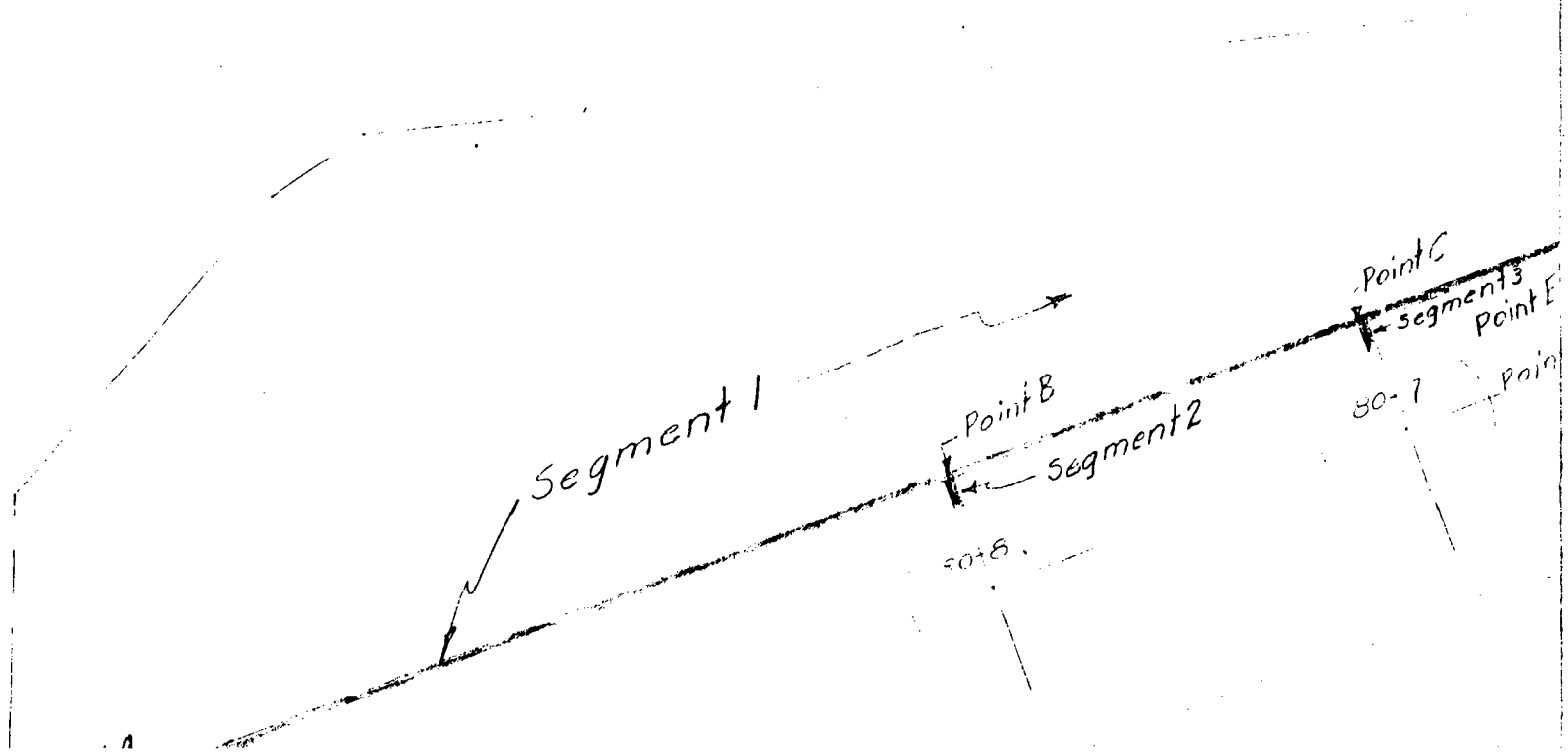
STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

I, SHERRI L. GALLAGHER, the undersigned Notary Public, in and for and residing in the said county and in the state aforesaid, DO HEREBY CERTIFY that C. W. Fink, personally known to me to be the Vice President of SINCLAIR MARKETING, INC., a Delaware corporation and James E. Cannon, personally known to me to be the Assistant Secretary of said corporation, whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such Vice President and Assistant Secretary they signed and delivered the said instrument of writing as Vice President and as Assistant Secretary of said corporation, and caused the seal of said corporation to be affixed thereto pursuant to authority by the Board of Directors of said corporation as their free and voluntary act and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 6th day of February, 1981.

Notary Public

My commission expires 8/20/83.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Point C
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Point E
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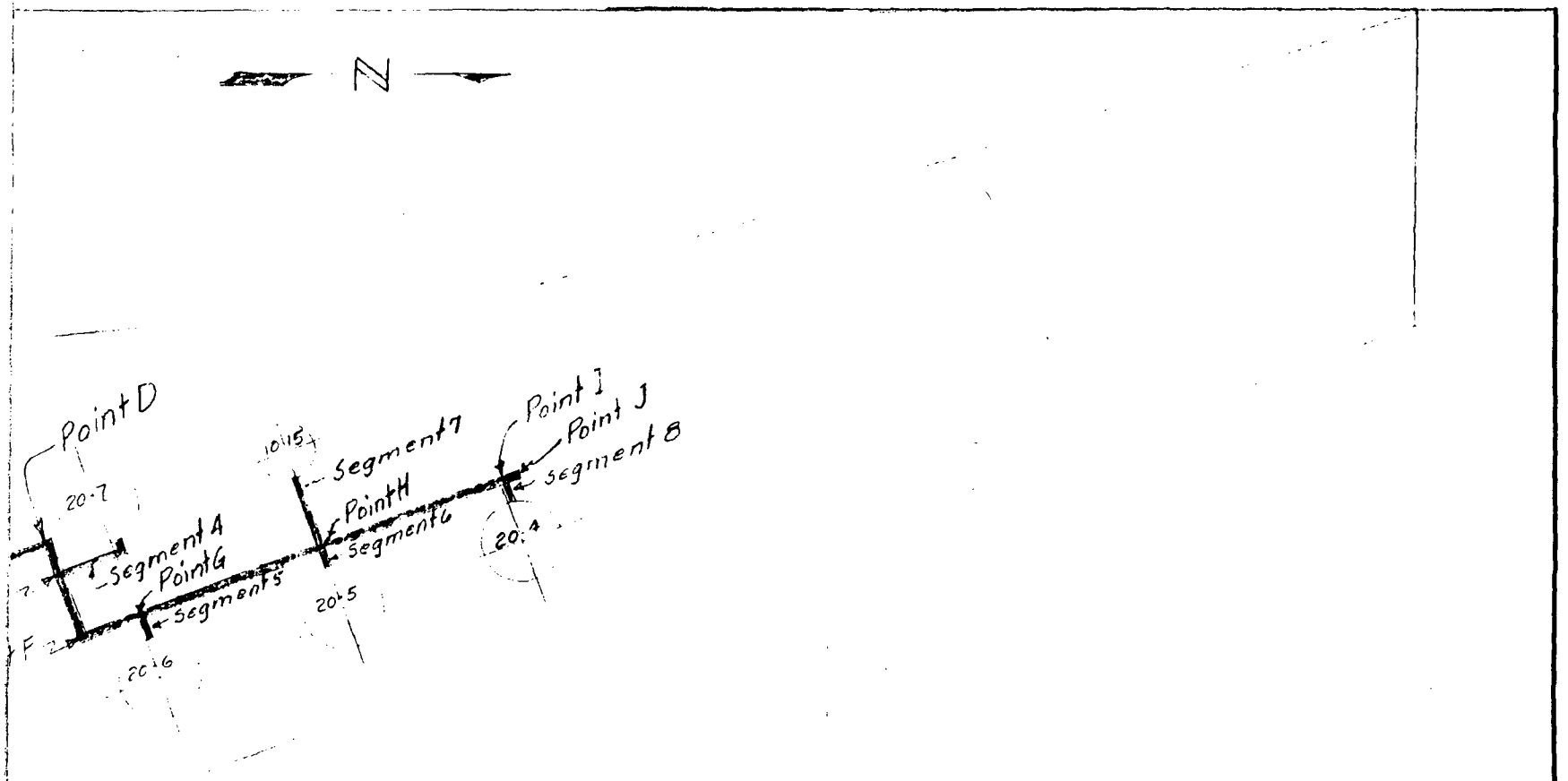


PRODUCTS TANK FARM
NORTH PROPERTY

II.E. Agreement dated September 28, 1981 between Clark Oil & Refining Corporation (Wisconsin) and Sinclair Marketing Inc. (Delaware).

AGREEMENT

WHEREAS, Clark Oil and Refining Corporation (hereinafter, "Clark") intends to convey to Sinclair Marketing, Inc. (hereinafter, "Sinclair") the rights and interest of Clark in a 10" petroleum products pipeline located in part upon the premises of Clark and in part upon the premises of others over which Clark has certain rights.

WHEREAS, Sinclair intends to accept such conveyance.

Therefore for the sum of ten and no/100 ($10.00) dollars and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1. That Clark creates, grants and conveys an easement to Sinclair for the use of a 10" petroleum products pipeline upon the premises of Clark.
2. That Clark assigns and transfers to Sinclair its rights, if any, in any easements, ordinances and licenses from Clark's premises to an existing petroleum products tank farm.
3. That Clark sells, assigns and transfers its personal property rights, if any, in one 10" petroleum products pipeline, known as the south pipeline, to Sinclair.
4. THAT SINCLAIR RELEASES, RELINQUISHES AND DISCHARGES AND AGREES TO INDEMNIFY, PROTECT AND SAVE HARMLESS CLARK OF AND FROM ANY AND ALL CLAIMS, DEMANDS AND LIABILITY FOR ANY LOSS, DAMAGE OR INJURY TO ANY PERSONS OR PROPERTY, SPECIFICALLY INCLUDING ANY LOSS, DAMAGE AND INJURY OF A PUBLIC HEALTH OR ENVIRONMENTAL NATURE, CAUSED BY, GROWING OUT OF OR HAPPENING IN CONNECTION WITH SINCLAIR's

STATE OF WISCONSIN)
) SS.
COUNTY OF MILWAUKEE)

I, Frances R. Remshak, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY THAT Richard P. Nelson, a Vice President of Clark Oil & Refining Corporation, and Harold J. Lessner, Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Secretary, respectively appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notorial Seal this 28th day of September, 1981.

Frances R Remshak
Notary Public - Frances R. Remshak

My commission expires:
September 25, 1983

STATE OF COLORADO)
) SS.
COUNTY OF ARAPAHOE)

I, Phyllis A. Stone, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY THAT R. G. Little, a Vice President of Sinclair Marketing Inc., and James E. Cannon, Assistant Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Secretary, respectively appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notorial Seal this 9th day of October, 1981.

Phyllis A Stone
Notary Public

My commission expires: 5-9-82

OWNERSHIP, OPERATION, USE, REPAIR OR REMOVAL OF SAID PIPELINE AND APPURTENANT FACILITIES OR THE USE AND OCCUPANCY OF THE EASEMENT, STRUCTURES, EQUIPMENT OR APPLIANCES LOCATED OR TO BE LOCATED THEREON, OR BY REASON OF ANY OTHER CASUALTY EXCEPT WHEN DUE TO THE SOLE NEGLIGENCE OF CLARK.

IN WITNESS HEREOF, This Agreement is executed this 28th day of September, 1981.

ATTEST: CLARK OIL & REFINING CORPORATION

Secretary By

ATTEST: SINCLAIR MARKETING, INC.

Assistant Secretary By

II.F. Bill of Sale from Clark Oil & Refining Corporation (Wisconsin) to Sinclair Marketing, Inc. (Delaware), September 28, 1981

BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS that CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, (hereinafter called "Vendor"), for the sum of TEN AND NO/100 ($10.00) DOLLARS and other good and valuable consideration, the receipt of which is hereby acknowledged, hereby bargains, sells, assigns and transfers to SINCLAIR MARKETING, INCORPORATED, a Delaware corporation, (hereinafter called "Vendee") authorized to transact business in the state of Illinois, personal property owned by Vendor, used in the connection with the operation of Vendor's Hartford, Illinois Refinery premises consisting of one of two 10" pipelines, known as the South Pipeline, and facilities appurtenant, thereto located on an easement granted on the date set forth below by Vendor to Vendee on Vendor's premises and further located on rights of way of the Gulf, Mobile and Ohio Railroad, the Illinois Terminal Railroad and the New York Central Railroad, Vendor's rights in such assigned to Vendee, and further located on an easement from the City of Hartford the rights of such easement assigned by Vendor to Vendee and further located on an easement from Sinclair Refining Company the rights of such easement assigned by Vendor to Vendee.

VENDOR DOES NOT, EITHER EXPRESELY OR IMPLIEDLY WARRANT OR GUARANTEE THE CONDITION, MATERIALS, WORKMANSHIP OR COMPLETENESS THEREOF NOR ITS FITNESS OR CONDITION FOR ANY PURPOSE NOR GOOD TITLE NOR FREEDOM FROM ANY GRANTS, ENCUMBRANCES, LIENS, LEVIES, JUDGMENTS, TAXES AND ASSESSMENTS OF ANY KIND OR NATURE.

WITNESS the hand and seal of Vendor attested this 28th day of September, 1981.

ATTEST: CLARK OIL & REFINING CORPORATION

Secretary By

II.G. Easement, Clark Oil & Refining Corporation (Wisconsin) to Sinclair Marketing Inc. (Delaware),

E A S E M E N T

STATE OF WISCONSIN)
) KNOW ALL MEN BY THESE PRESENTS
COUNTY OF MILWAUKEE)

That CLARK OIL & REFINING CORPORATION, a Wisconsin corporation, authorized to transact business as a foreign corporation in the State of Illinois, having its principal business office at 8530 West National Avenue, Milwaukee, Wisconsin, hereinafter referred to as "Grantor", for and in consideration of the sum of TEN AND 00/100 ($10.00) DOLLARS and other valuable considerations, the receipt and sufficiency of which is hereby acknowledged, and in further consideration of the conditions, covenants and agreements to be kept, observed and performed as hereinafter set forth by SINCLAIR MARKETING, INC., a Delaware corporation, having its principal business office at 750 West Hampden Avenue, Englewood, Colorado, hereinafter referred to as "Grantee", does hereby, subject to the continuing fulfillment of the consideration aforesaid, give, grant and convey unto the said Grantee an easement to use, maintain, operate, repair and replace one of two 10" pipelines, known as the South pipeline (shown on Clark drawing WR003-FM-1223, attached hereto) and appurtenant facilities for the transportation of petroleum products over, through, under and across a tract of land in part of the South Half of Section 34, Township 5 North, Range 9 West of the Third Principal Meridian. The South pipeline is described more particularly as follows:

Commencing at the Northwest Corner of Hawthorne Place Subdivision as recorded in Plat Book 22 on Page 41 in the records of the Madison County Recorder's Office, thence North 08 Degrees 44 Minutes 00 Seconds West (assumed bearing) along the Northerly extension of the West Line of said Hawthorne Place a distance of 16.65 feet to the point of beginning, thence South 89 Degrees 44 Minutes 11 Seconds West a distance of 634.61 feet, thence North 00 Degrees 22 Minutes 39 Seconds West of 168.89 feet, thence North 89 Degrees 14 Minutes 29 Seconds East a distance of 236.20 feet, thence North 00 Degrees 10 Minutes 32 Seconds West a distance of 30.19 feet, thence North 89 Degrees 20 Minutes, 26 Seconds East a distance of 1311.88 feet, thence South 46 Degrees 14 Minutes 36 Seconds East a distance of 68.67 feet, thence North 89 Degrees 22 Minutes 54 Seconds East a distance of 64.19 feet thence North 00 Degrees 21 Minutes 36 Seconds West a distance of 28.39 feet, thence North 89 Degrees 22 Minutes 40 Seconds East a distance of 15.89 feet, thence North 00 Degrees 23 Minutes 18 Seconds West a distance of 37.30 feet to the point of ending. All in the County of Madison, State of Illinois.

relocated route, which grant will be subject to all the terms and conditions of this easement, and upon the delivery of which Grantee's easement in the above-described real estate shall thereupon cease and terminate.

4. Grantee, hereby releases, relinquishes and discharges and agrees to indemnify, protect and save harmless Grantor of and from any and all claims, demands and liability for any loss, damage or injury to, including the death of, persons (whether they be third persons or employees of either of the parties hereto) and other like or different casualty to property (whether it be that of either of the parties hereto or of third persons) caused, by, growing out of or happening in connection with Grantee's operation, patrol, repair or removal of said pipelines and appurtenant facilities or the use and occupance of the easement, structures, equipment or appliances located or to be located thereon, or by reason of any other casualty except when due to the sole negligence of Grantor.

5. Grantor reserves the right to use its real estate for all purposes not inconsistent with this grant. Grantee accepts this grant subject to all prior easements, leases or other interests in the above described real estate created by Grantor or its predessors in title whether the same be of record or not, and all rights conferred by this grant shall be exercised so as to avoid unreasonable interference with any of said prior easements, leases or other interests.

6. Pipelines and appurtenant facilities shall be constructed, maintained, operated, repaired, replaced and removed by Grantee in a good and workmanlike manner and the underground portion of said pipelines shall continue to be buried at a depth so that the top of any casing shall be not less than the present distance of the lines below the surface of the ground at all points and the surface of the ground over said pipelines shall always be restored to and kept in its present level condition as nearly as may be practicable. All construction, maintenance, relocation and removal work shall be done in accordance with the applicable State and Federal laws and regulations and in a manner subject to Grantor's approval. Grantor, in giving any such approval shall be

acting on its own behalf and not as agent of Grantee. In the performance of any work by Grantee it shall do no act nor make any representation to any person that Grantee, its agents or representatives, is the principal or agent of Grantor in any particular.

7. Upon the termination of this easement Grantee agrees, at its expense, to promptly remove from Grantor's lands said pipelines and appurtenant facilities and thereafter to restore said lands to the condition existing before the installation of said pipelines and appurtenant facilities.

8. From the date hereof Grantee agrees to pay all taxes which may be levied or assessed on said pipelines and appurtenant facilities and Grantee further agrees to reimburse Grantor for the amount of any taxes which may be assessed thereafter against Grantor by reason of the location of said pipelines and appurtenant facilities upon the real estate of Grantor covered by this easement.

9. Grantee agrees to observe all rules and regulations that have been or may hereafter be promulgated by Grantor for the conduct of individuals while on Grantor's property, including but not limited to rules or regulations with respect to acts or practices deemed hazardous, and also agrees to enforce compliance therewith by its employees, Agents and invitees.

10. All notices given under this easement shall be in writing, and may be given either in the stautory method, if any, in the State where Grantor's real estate is situated, or by sending such notice by registered mail properly addressed to the party to be notified, at such party's address as shown in this easement, or at such party's last known address. The day upon which such notice is mailed shall be treated as the date of service.

11. The terms and conditions hereof shall be binding upon and shall inure to the benefit of the parties hereto, their successors and assigns; provided, however, that the easement and rights herein granted to Grantee shall not be assigned in whole or in part without the consent of Grantor in writing first obtained.

12. Grantee shall cause or suffer no claim for Mechanic's or Materialmen's liens to be placed against Grantor's title to the subject premises by reason of any act or omission of Grantee or any person, firm or corporation acting on behalf of Grantee in the use or occupancy of the easement hereby conveyed or in the construction, repair, operation, maintenance or replacement of existing or future pipelines therein.

IN WITNESS WHEREOF said Grantor has caused these presents to be duly executed and attested by its proper officers thereunto duly authorized; and said Grantee, in evidence of its acdeptance of this grant, upon the terms and conditions hereinabove specified has likewise caused these presents to be executed and attested with its corporate seal hereunto affixed by and through its proper officers thereunto duly authorized all as of this 28th day of September, 1981.

ATTEST: CLARK OIL & REFINING CORPORATION, Grantor

Secretary By

ATTEST: SINCLAIR MARKETING, INC. Grantee

Assistant Secretary By

STATE OF WISCONSIN)
) SS.
COUNTY OF MILWAUKEE)

I, Frances R. Remshak , a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY THAT Richard P. Nelson , a Vice President of Clark Oil & Refining Corporation, and Harold J. Lessner, Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Secretary, respectively appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notorial Seal this 28th day of September , 1981.

Frances R Remshak
Notary Public - Frances R. Remshak

My commission expires:

September 25, 1983

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

I, Phyllis A. Stone, a Notary Public in and for said County, in the State, aforesaid, DO HEREBY CERTIFY that R. G. Little, a Vice President of Sinclair Marketing, Inc. and James E. Cannon, Assistant Secretary of said corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such Vice President and Secretary, respectively appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth; and the said Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the said corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN under my hand and Notarial Seal this 28th day of September, 1981.

Phyllis A. Stone
Notary Public

My Commission Expires: 5-9-82.

III.A. Village of Hartford Ordinance No. 310 (copy certified 10/2/52), Ordinance granting easement to Sinclair Refining Company.

CERTIFIED COPY OF ORDINANCE NO. 310
OF THE VILLAGE OF HARTFORD,
MADISON COUNTY, ILLINOIS

STATE OF ILLINOIS,
COUNTY OF MADISON, SS:

I, BERDELL E. McCANN, Village Clerk of the Village of Hartford, Madison County, Illinois, HEREBY CERTIFY that the following is a true and correct copy of Ordinance No. 310 of the said Village of Hartford:

"AN ORDINANCE GRANTING AN EASEMENT FOR RIGHT-OF-WAY TO SINCLAIR REFINING COMPANY.

Be it ordained by the President and the Board of Trustees of the Village of Harford that

Section 1

The Sinclair Refining Company, a corporation, be and the same are hereby authorized to excavate and construct certain pipe lines within the Village of Hartford, Madison County, Illinois, and more generally described as follows:

a. One fourteen (14) inch and two ten (10) inch pipe lines along and beneath the Easterly edge of Olive Street from a point approximately fifty (50) feet South of the center line of Forest Street for a distance of approximately four hundred (400) feet to Elm Street.

b. Two ten (10) inch pipe lines beneath and along the Easterly edge of Olive Street in the Village of Hartford, Madison County, Illinois, a distance of approximately one-thousand eight hundred and seventy (1870) feet to Rand Street; thence, in a Westerly direction and along and beneath the South side of Rand Street a distance of one hundred twenty-five (125) feet more or less; thence, in a Northerly direction beneath and across Rand Street and into and upon privately owned real estate on the North side of Rand Street.

c. A six (6) inch pipe line for water purposes extended from the existing eight (8) inch water main of the Village of Hart-

ford on the South side of Rand Street in the Village of Hartford, and extended in a Northerly direction across and beneath the surface of Rand Street in the Village of Hartford and immediately parallel and adjacent to the ten (10) inch pipe line referred to in Paragraph 5 hereof.
(All of the above pipe lines and excavation are more particularly shown upon Plot Plan MR-017-FMS, prepared by Sinclair Refining Company and submitted to the Village of Hartford and also filed with the Village Clerk of the Village of Hartford.)

Section 2

The Sinclair Refining Company, a corporation, shall carry on all of the excavation for the laying and construction of said pipe lines in a workmanlike manner and shall safeguard all excavations by necessary barricades, signals and flares as the circumstances may require and shall not, except when necessary in the immediate course of construction, permit dirt and materials to accumulate and remain upon the surface of the Village Street or adjacent property thereto, and upon completion of the excavation and laying of the pipe lines as aforesaid, shall immediately restore the surface of the streets and property thereto to their original state by backfilling, and a thorough tamping of the backfilling and a restoration of pavements where the same have been disturbed or removed, and shall for a period of two years subsequent to the completion of said excavation and backfilling make any and all necessary additional backfills or repairs which may be occasioned by the subsidence of the excavation area, or by leakage which may develop in the pipe lines constructed as aforesaid.

Section 3

Sinclair Refining Company, a corporation, shall upon the institution of the excavations herein authorized, file with the Village Clerk and for Approval by the President of the Board of Trustees of the Village of Hartford, a bond in the penal sum of $5,000.00 conditioned upon the compliances by the Sinclair Refining Company, a corporation, with the terms and conditions of this Ordinance.

Section 4

This Ordinance shall be designated Ordinance No. 310 and shall be in full force and effect after its passage, approval, and publication as provided by law.

Passed by the Board of Trustees of the Village of Hartford, Madison County, Illinois, this 5th day of August, 1952.

Approved by the President and Board of Trustees of the Village of Hartford, Madison County, Illinois, this 5th day of August, 1952.

JOE M. STUMP,
President of the Board of
Trustees of the Village of
Hartford, Illinois.

(SEAL)
Attest:
BERDELL E. McCANN,
Village Clerk."

I FURTHER CERTIFY that said Ordinance No. 310 was passed by the Board of Trustees of the Village of Hartford, Madison County, Illinois and approved by the President and Board of Trustees of the Village of Hartford, Madison County, Illinois on August 5, 1952 and was duly published in The Journal, the paper designated by said Village, on September 11, 1952, and I FURTHER CERTIFY that said Ordinance was passed in conformity to the law.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Village this 2 day of October, 1952.

Berdell E. McCann
Village Clerk of the
Village of Hartford,
Madison County,
Illinois

III.B. Correspondence concerning Permission to install pipelines, B.E. Gray, International Shoe to M.H. Nolan, Sinclair Refining, June 13, 1952.

INTERNATIONAL SHOE COMPANY

MANUFACTURERS

1509 WASHINGTON AVE.

ST. LOUIS 3, MO.

SINCLAIR 1952

JUN 16 1952

HARTFORD, ILLS.

	Note	Hdle.			Note	Hdle.
WDL				GRJ		
RIJ				BHF		
AAF				ABG		
GHP				OFS		
JWL				WHW		
MJW						

Sinclair Refining Company
Hartford, Illinois

Attention: Mr. M. H. Nolan

Gentlemen:

As per our agreement entered into with Messrs. O. H. Ingram and Fred C. Koch dated November 23, 1939, which which was passed on to the Sinclair Refining Company from the Wood River Oil and Refining Company, Inc., it is satisfactory for you to install three additional pipe lines (two 10" lines, one for gasoline and one for fuel oil, and one 12" line for delivery of products to your river terminal) immediately north and adjacent to the existing Sinclair Refining Company oil lines, as requested in your letter of May 28, 1952, to our Mr. George Woelfel of our Hartford Plant.

Of course, the above permission does not alter the original aforementioned agreement, including the paragraph: "Second Parties' (Sinclair Refining Co.) exercise of these rights shall be such as that they shall not interfere with First Party's (International Shoe Co.) use of the switch track, sewer, or the property which it retains."

Yours very truly,

INTERNATIONAL SHOE CO.

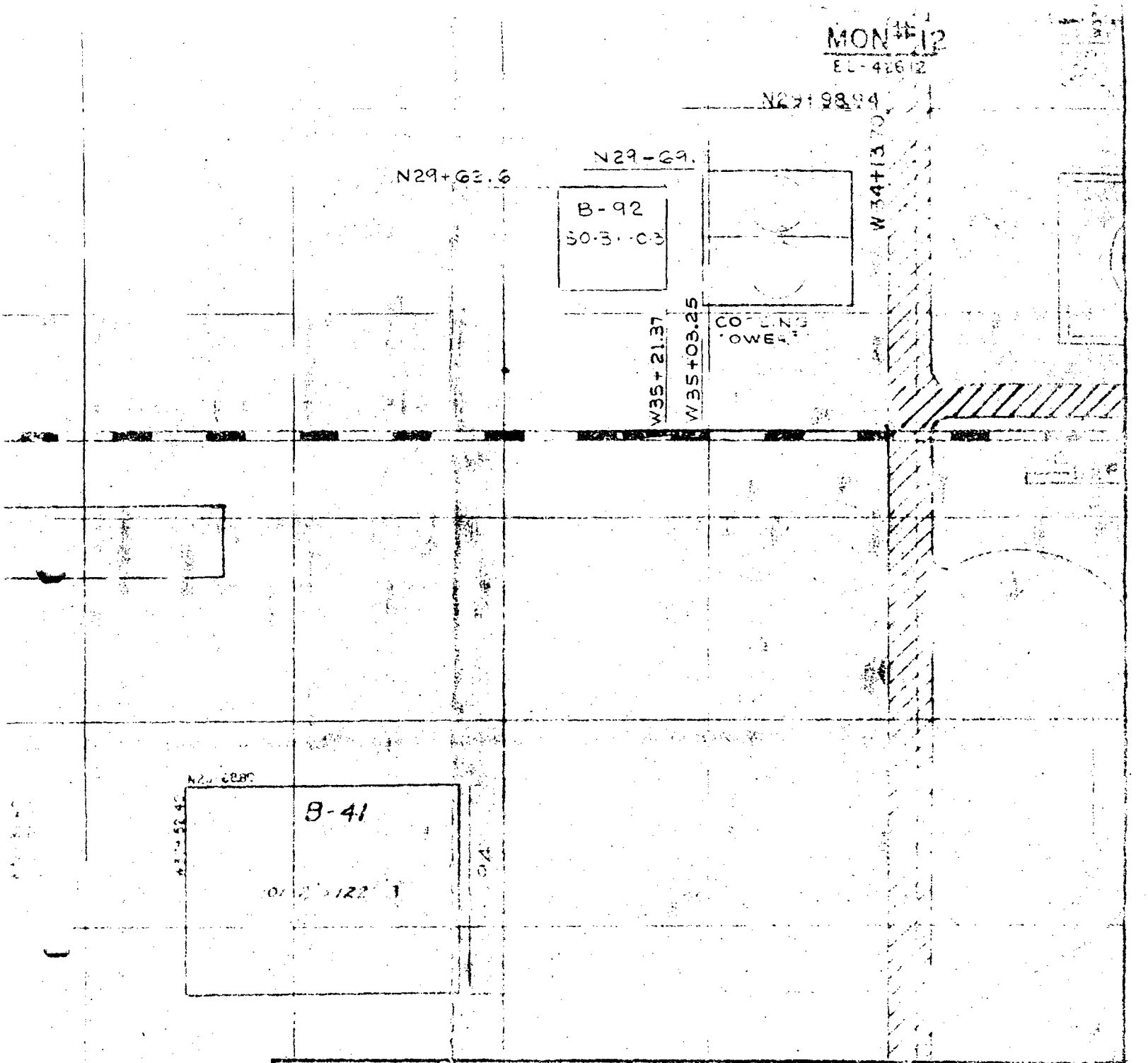
B. Everett Gray

B. Everett Gray
Tanning Division
1820 Cherokee Street

BEG:VGF

cc Mr. George Woelfel
Property Files

III.C. Drawing No. WR003-FM-1223, Clark Oil & Refining. December, 7, 1979. Piping Location Plan, Existing 10" Proposed Sinclair Products Line from Amoco Products Line at Clark Pumps to West Clark Property Line. Revised March 6, 1980.



CLARK OIL & REFINING Corporation

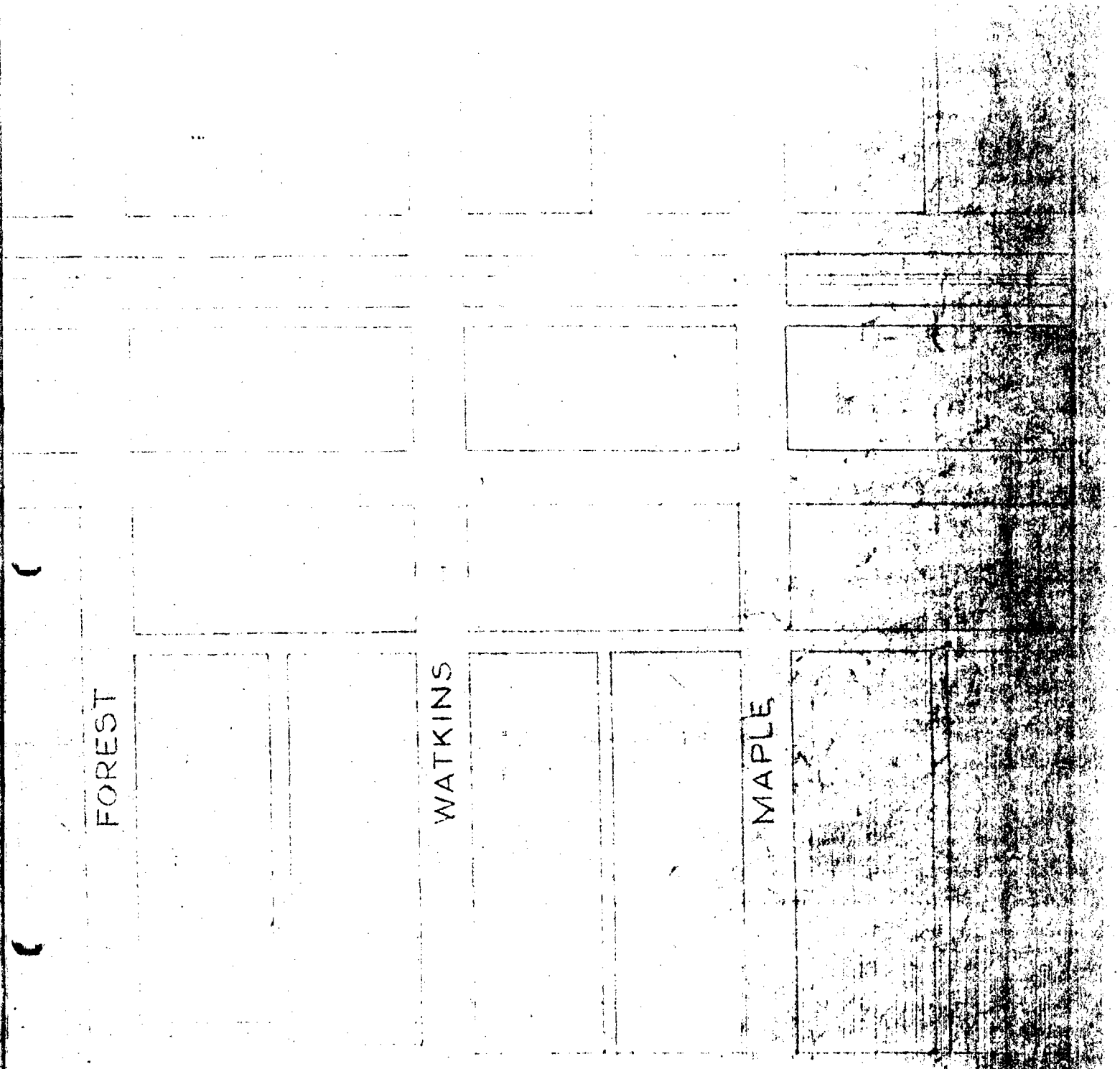
MARCUS HOOK, PENNSYLVANIA 19061

APPROVAL

	DATE		LOCATION PLAN	DRAWING NO.
	DATE			

III.D. Drawing No. WR017, Sheet No. FM3. Sinclair Refining Co., New York. May 27, 1952. 2 10" Lines to Products Tank Farm, 1 6" C.I. Water Line to Tank Farm Through City of Hartford. Revised March 5, 1965.

III.E. Drawing WR00-DB-141, Clark Oil and Refining. March 4, 1980. 10" Product Lines in Parcel No. 12 from Point of Beginning thru Point "A" to Point "B."



AUTHORIZATION NO. WR-67

D

DESTROY ALL PRINTS BEARING EARLIER DATE

REVISIONS	SYM.	REV. BY	CHK BY	APP. BY

DRAWN BY NEWN

TRACED BY

CHK. BY

APP. BY

APP. BY

APP. BY

FOR GENERAL ARRANGEMENT DRAWINGS ONLY

GENERAL DESIGN APPROVED BY

SINCLAIR REFINING CO.

630 FIFTH AVE. NEW YORK

REFINERY

UNIT

PRODUCTS TANK, PA.

SCALE

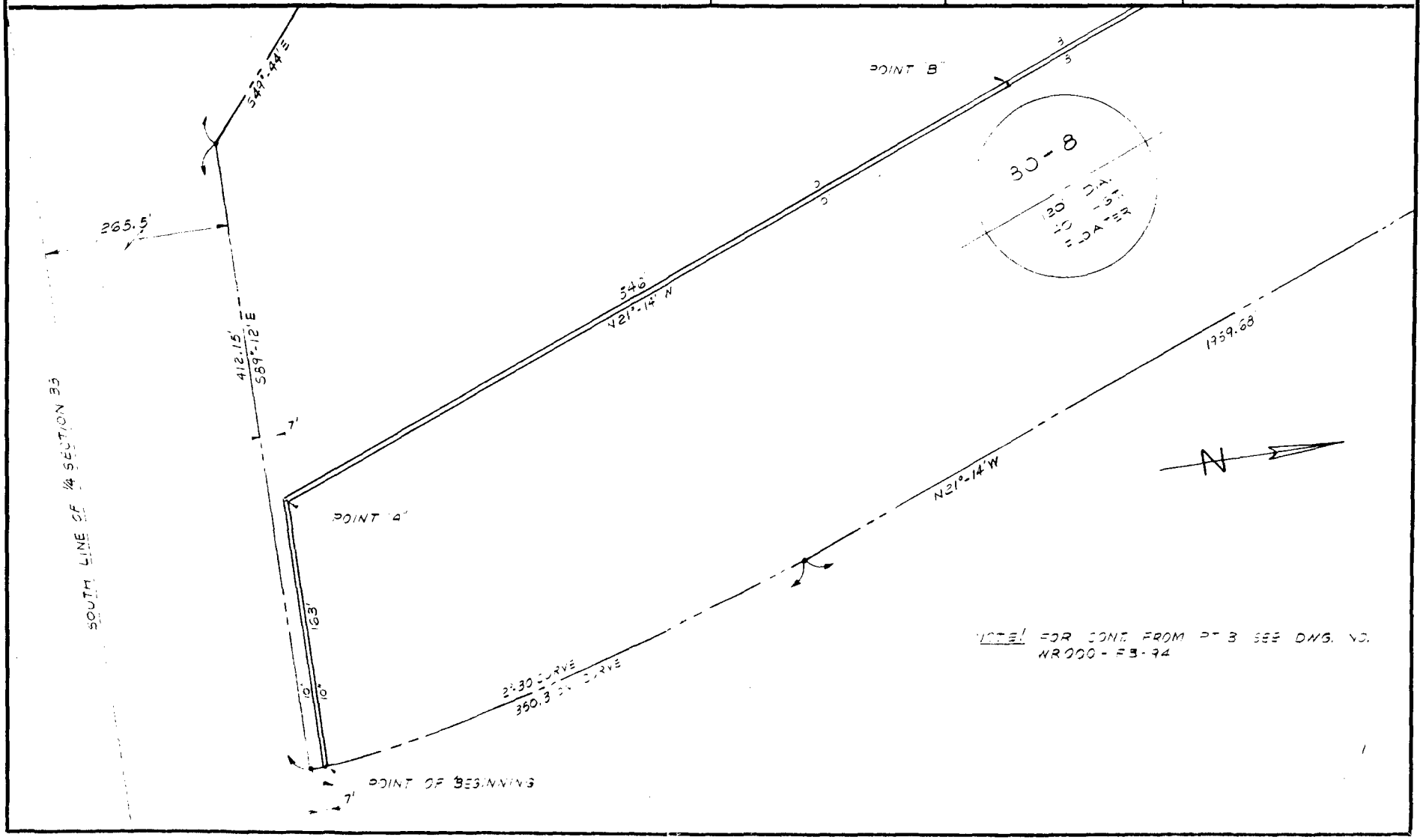
OPERATING DEPARTMENT

CLARK OIL & REFINING Corporation

HARTFORD, ILLINOIS

10" PRODUCT LINES IN PARCEL NO. 12 FROM POINT OF BEGINNING THRU POINT "A" TO POINT "B"

DRAWN BY D.L. HAWK CKD.	APPROVED	DRAWING NO.
DATE 3-4-80	SCALE NONE	WR000 - DB - 141



III.F. APL Inter-Office Communication, December 26, 1978. From G.M. Stout to R.J. Osborn. Water Testing of Wood River/Clark Line.

Date: December 26, 1978

To: R. J. Osborn

From: G. M. Stout

Subject: Water Testing of Wood River/Clark Line

During your absence I called Gene McEntire at Carrollton to determine when he expected to go ahead with testing of the line from the Clark Refinery to Keller-Piasa tank lines. He indicated that he and Roy Shull plan to go to Wood River next week to plan for the testing with the work to be done the following week.

We are now looking at only testing the Clark line, and for the present have disregarded any thought toward testing our inactive line. Amoco and Clark will make an exchange agreement whereby Clark will supply product to our system for Amoco and the new line from Amoco to Clark will not be needed for some period of time.

Gene indicated that he would advise Clark of the maximum allowable pressure on our suction manifold and would pressure test in line with DOT regulations. Assuming the test is successful, we would then need to lay an extension from the Clark line to the suction of our meters. We expect that Amoco will share expense with ARCO for the testing and new segment of pipeline. When operative, we would want to avoid responsibility for the pipeline upstream of our meters.

Please advise if there are any questions.

GMS:mah
cc: G. E. McEntire
R. P. Ryan

III.G. APL Hydrostatic Test Record and Certification, April 30, 1979 (including work log). Hydrostatic test, 10-inch Clark Line.

ARCO Pipe Line Company
Hydrostatic Test Record & Certification

Report Number	Report Date
CAR 56	7/30/79

System

Name of Owner	Name of System	System Service Date
Clark Oil Company	10" Refinery Line	

Service: ☐ Crude Oil ☒ Liquid Petroleum Product ☐ Other

System Design Code: ☐ ANSI B31.4 ☐ ANSI B31.8 ☐ Other ARCO

Project Information

System No.	Location No.	Auth. No.	District	County or Parish	State
50	5101		Carrollton	Madison	Illinois

Project is for: ☐ Station Piping ☐ Trunk Line ☐ New System ☐ Replacement Relocation ☒ Reclassify Pressure

Company Inspection of Construction by: NA

Reference: Alignment or Inventory Maps – Project Drawings – Test Plans
None available

Testing Specs. in Effect: ☐ Pipeline Construction ☐ Replacement Relocation ☐ Other ARCO

Construction Contractor:

Hydrostatic Testing Contractor (Specialist): ARCO ☐ None

Radiographic Contractor:

Pump Station Name (for pump station test)

Pump Station Internal Design Factor: ☐ .40 ☐ .50 ☐ .60 ☐ .65 ☐ .72 SMYS

Upstream Pump Station Name (for trunk line test)

Pipeline Miles From Test Project

Maximum Operating Pressure of Upstream Pump Station PSIG

In table below list pipe under test in descending order of calculated hoop stress on pipe. ☐ Only one category of pipe

Upstream Station Internal Design Factor: ☐ .40 ☐ .50 ☐ .60 ☐ .65 ☐ .72 SMYS

Spec. & Grade	Long.Joint	Class	O.D.	W.T.	lbs./ft.	Manufacturer	Coating Specs.	Comments
Unknown								

For Trunk Line Segment Tested | Segment No. | Begins @ P.L. Sta. | Ends @ P.L. Sta. | Length Segment 1.25 miles

Test Medium: ☒ Water ☐ Crude Oil ☐ Kero ☐ Fuel Oil °API °F Flash

Backfilled before test? ☐ Yes ☐ No

Kind of Inhibitor Used | % Mix | Barrels | ☐ None

Specified Test Pressure Shall Be: PSIG Minimum 375 | For % SMYS | To PSIG Maximum 550 | For % SMYS

Dead weight test gauge hold pressure applied was between: PSIG Minimum 465.6 & PSIG Maximum 520

Segment Elevations were: ☐ From Line Map Profile | Levels From ☐ B.M. ☐ Assumed B.M. | Low Point Elevation | D.W.T. Gauge Pt. Elev. | High Point Elev. | ☒ Elevation Varies Less Than 10 Ft.

Field Test Data and Recordings

Dead Weight Test Gauge Readings – On pressure hold cycle record beginning and hourly (24 hrs.) or as Test Specifications require. Record °F Test Medium

Pressure Injection Cycle Began:	Time	Date	Elapsed Time	Pressure Hold Cycle Began at Zero Hour of:	Time	Date	@ PSIG	°F of Test Medium at Zero Hour.
	4:10 PM	4-25-79	20 min.		4:30 PM	4/25/79	490.5	63°

Hour	PSIG - D.W. Tester	°F T.M.	Hour	PSIG - D.W. Tester	°F T.M.	Hour	PSIG - D.W. Tester	°F T.M.	Hour	PSIG - D.W. Tester	°F T.M.
1 5:00P	490.5	63	7			13			19 11 A	484.5	62+
2			8 12 P	477.2	62	14 6 A	465.6	62-	20 12 N	488.5	62+
3 7:00P	485.5	62	9			15 7 A	467.5	62-	21 1 P	492.5	62+
4			10 2 A	473.3	62	16 8 A	469.7	62	22 2 P	512.0	63
5			11			17 9 A	471.5	62	23 3 P	515.5	63
6 10 P	481.0	62	12 4 A	469.4	62	18 10 A	479.8	62+	24 4:30P	520.0	63+

The 24th hr. reading occurred at: Time 4:30P Date 4/24/79

Temp. Reading was in: ☐ Thermo-well ☐ Backfill ☒ See Comment Sheet 2

Antifreeze Slug Followed Water Purge: Kind | Barrels | ☐ None

Valves drained? ☐ Yes ☐ No

Antifreeze Injected in Valves? ☐ Yes ☐ No ☒ No Valves

Line Drying Procedure: Air behind poly-pig ☐ None

Tie-in Welds Radiographed? ☐ Yes ☐ No

Hydrostatic tested? ☐ Yes ☐ No

Explain if both answers are "No": Not applicable

ARPL-572-7/4

(Continued on Sheet 2)

Hydrostatic Test Record & Certification (Sheet 2)

Report Number	Report Date
CAR-56	4/30/74

Pressure Limitations: Fittings - Valves - Equipment were: [x] In tested structure and limited test pressure to: PSIG 550 | List and explain: 150 lb. flanges

[ ] Blocked or removed during test and limits operating pressure to: PSIG | List and explain: | [ ] No Limitation

List Failures Below | Record All Failures: State fracture location as; in girth weld, longitudinal weld, transition zone, pipe metal, valve or fitting body. Type as: shear or cleavage (ductile or brittle), fatigue, hydrogen stress (embrittlement), stress corrosion, laminations, pinhole, mechanical damage. Length, shape and pertinent observations. (Use attachment if necessary.)

Station Number	Failure Elevation	Recorder Failure Pressure	Failure Description			Disposition		
			Location	Type	Leak or Fracture? Size - Shape	Repair Weld	Replace Cylinder	Other Describe

Field Test Data and Recordings (Continued)

Test Equipment: Give Make, Model Type, Ser. No., Capacity, Range, etc.

D.W.T. Gauge Chandler Engineering Co. Cat. #61-1 Ser. 6738 1500 psi (0.1 incr)

Pressure Recorder & Temp 0-3000 psi 0-100°F Mercury Taylor C767W231-13057

Pressurizing Pump (Be explicit) Allis-Chalmers Ser. #PU88274B 3-3/8 & 3-1/2 inch, Displacement 125 cu. in.

Fill Pumps Chart OP313 Filled direct from fire hydrant.

Identified and attached are: [x] Pressure Charts [x] Temp. Charts [ ] Tie-in Weld Radiographs [x] Work Diary or Log [ ] Photographs | Other

Test Supervisor's general comments and explanation of deviations:

See work diary

This report, witnessed by the undersigned, is a true and accurate record of the project test procedure and recordings. | Witness Date 4/30/74

Testing & recording supervised and witnessed by: (signature and title)

Leonard E. Myers Dist Engr.

Company

ARCO Pipe Line Company

Engineering Notations

Note: Sp. gr. of fresh water @ 66° F. is 1.00 = 62.4#/C.F. = 0.433 PSI Head Foot

Test Medium	Spec. Gravity	PSI/Head Foot

Comments on pressure limitations, failures and so forth. (Use attachment if necessary.)

[ ] Comments and/or Calculations Attached [ ] No Comment

Maximum and minimum test pressures are calculated from the test medium specific gravity and the head foot differential from the D.W.T. gauge point.

Test Pressures	
PSIG Max.	for: % SMYS
PSIG Min.	for: % SMYS
PSIG MOP	for: % SMYS

The test procedure, satisfactorily completed, qualifies the structures tested to operate at:

Report checked and completed by: | Date

Approved by: (signature and title)

Company:

Hydrostatic Test of 10" Clark Refinery Line

Line to be tested is approximately 1.25 mile in length with approximately 1600 feet of the line above ground within the Clark Refinery. Test procedure was as follows:

1. A poly pig was run from Keller Piasa Terminal property to Clark Refinery with compressed air. Two obstructed tube turns were found. The line was cut and 1" x 4" wood was removed from line.

2. Line was filled with water behind poly pig from Clark Refinery to Terminal by hydrant pressure and blocked in with 100 psi overnight. Pressure was lost and Chrysler volume pump was used to find leaks. A total of 8 leaks were found, 5 of which were old leaks that had been improperly clamped off and 3 new corrosion pits were found. The condition of line dug up was generally poor and pits that were found were very large and concentrated. Condition of line is attributed to the fact that the two 10" lines are bare and lay but 3" to 5" apart and no active corrosion program was carried out on the line. Having found and permanently repaired all leaks the line was left overnight with 350 psi and then was bled off to 50 psi and held over the week-end.

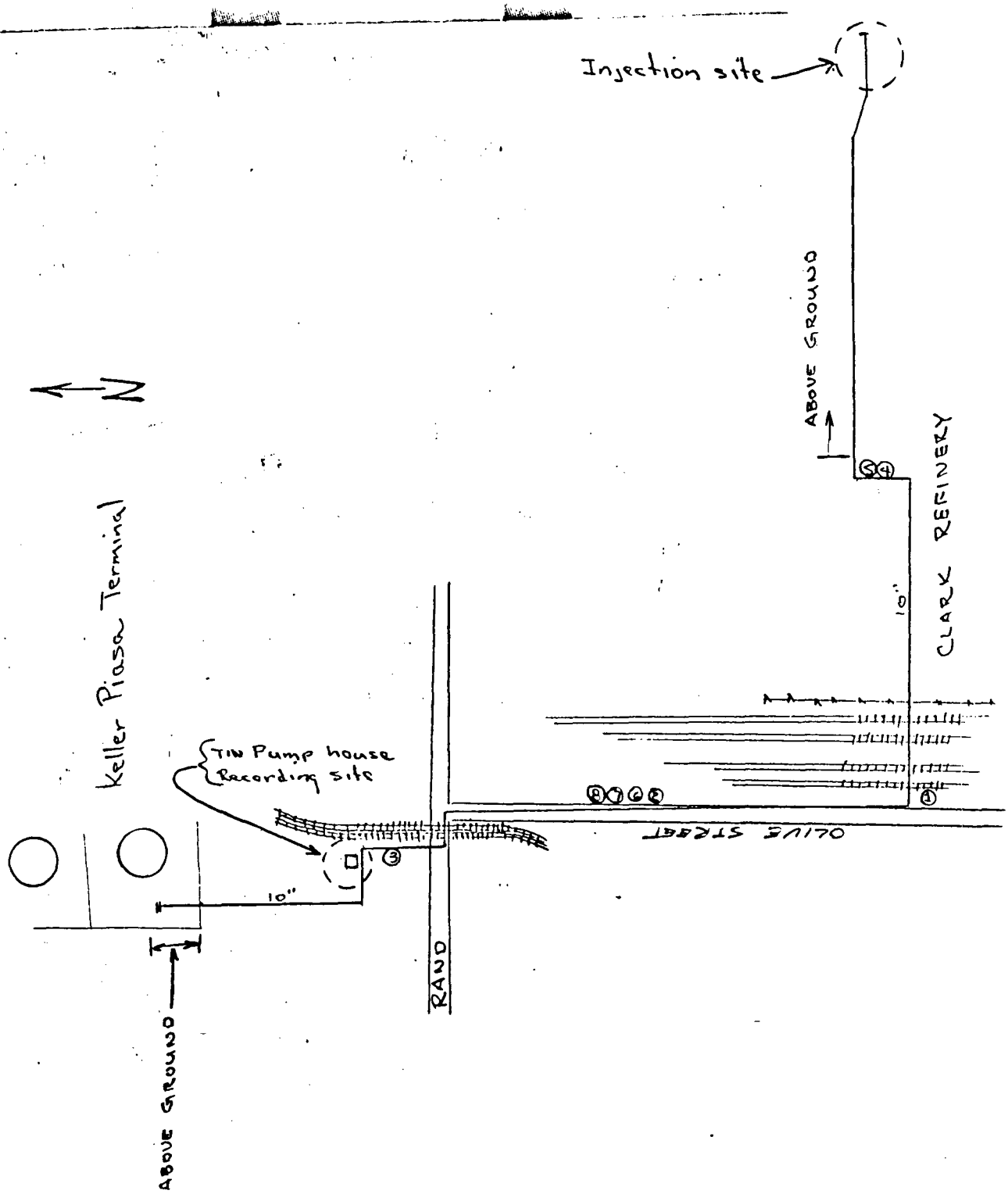
3. Due to weather conditions the recorder and dead weight gauge was set up in a tin gate house approximately 800 feet south of Keller Piasa Terminal and for all essential purposes at the opposite end from the injection site in the Clark Refinery.

The temperature probe was taped to the pipe in the concrete pit and insulated from the ambient air. The test manifold was connected to a reducer atop 2" ball valve taped into 10" spool that replaced a 10" valve with hydraulic hose and air was purged from the line to the manifold and 1/4" valve #1 in manifold was closed. The dead weight tester was hooked up to 1/4" valve #2 and 12' of hydraulic hose was attached to 1/4" valve #3 for the recorder. All remaining lines and manifold from dead weight tester to recorder was purged of air with Type A transmission fluid then 1/4" valve #1 was opened and chart was put on recorder. Equipment was now fully bled of air and injection site notified to start pressurizing.

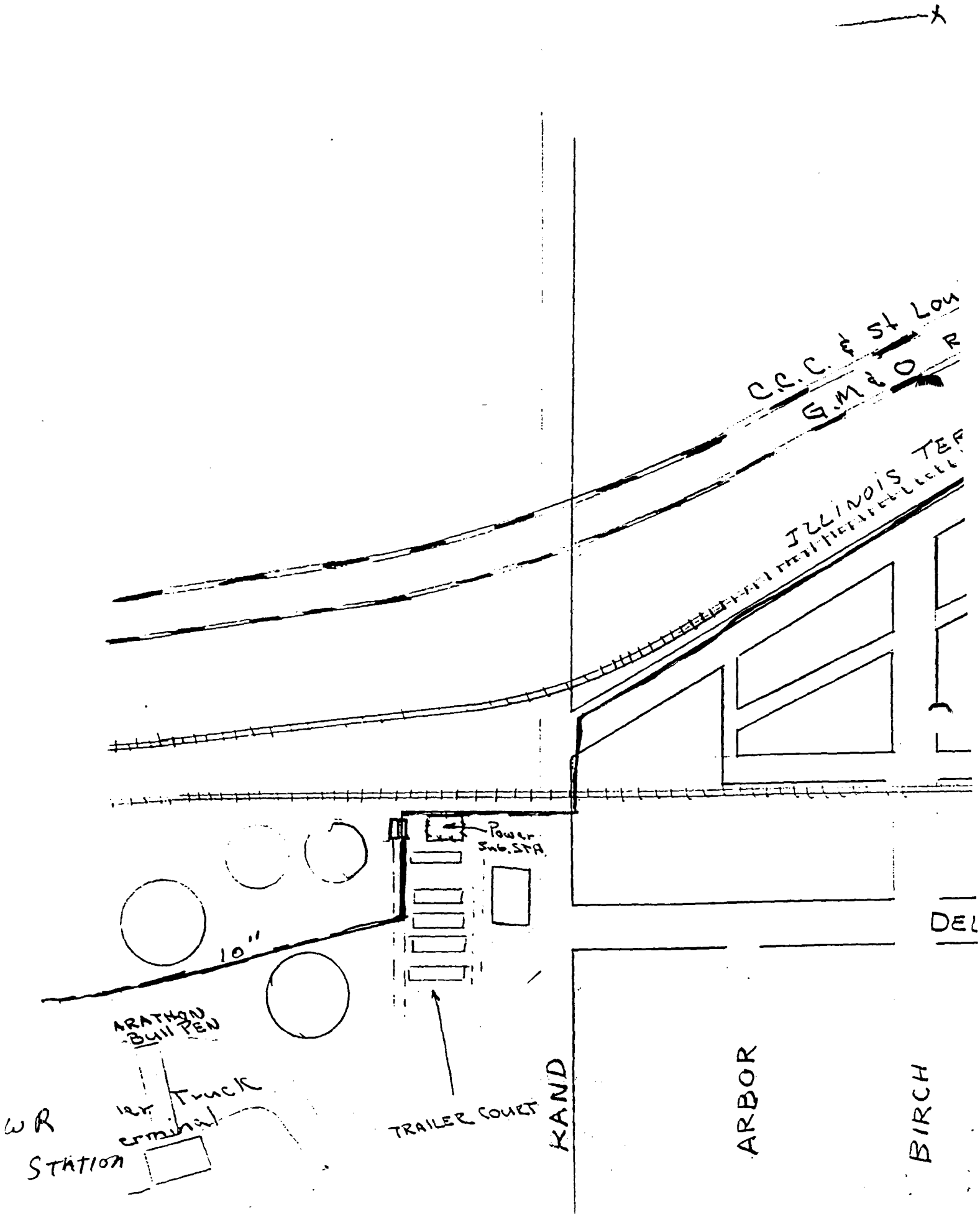
Pressure injection pump was started at 4:10 P.M. 40 gallons of water was pumped in bringing pressure up to 360 psi. Dye barrel was refilled and 20 gallons more was injected bringing pressure up to 490.5 psi (test hold pressure).

Pressure loss from 5:00 P.M. 4-23-79 to 6:00 A.M. 4-23-79 of 24.9 psi was due to temperature drop not detected by temperature probe. Approximately 1800 feet of line was above ground (1600 feet in Refinery - 200 feet at the Terminal) and these segments undoubtedly were cooled by the rains during the night and warmed by the brief periods of sun during the afternoon. A closer correlation of pressure and ambient temperature seems to point this out.

Time	Dead Weight Gauge PSI	Chart 900 PSI	Line Temp °F	Ambient °F	Remarks
-23-79 1:30 AM	490.5	490	63°	62°	Start 24hr. hold cycle
5:00 PM	490.5	490	63°	62°	
7:00 PM	485.5	490-	62°	60°	
10:00 PM	481.0	480	62°	59°	Heavy Rain showers started at 10:30 PM
2:00 AM	477.2	480-	62°	58°	
-24-79 2:00 AM	473.3	470+	62°	57°	intermittent Rain
4:00 AM	469.4	470-	62°	56°	
6:00 AM	465.6	460+	62°-	55°	Raining
7:00 AM	467.5	470-	62°-	55°	
8:00 AM	469.7	470	62°+	56°	
9:00 AM	471.5	470	62°+	57°	
10:00 AM	479.8	475	62°+	58°	
11:00 AM	484.5	480+	62°+	59°	
12:00 N	488.5	480+	62°+	60°	
1:00 PM	492.5	490+	62°+	63°	Sun trying to come out
2:00 PM	512.0	500+	63°	67°	intermittent Sun and rain showers
3:00 PM	515.5	500+	63°	70°	
4:00 PM	517.4	510+	63°+	71°	
4:30 PM	520.0	510+	63°+	71°	



Leaks #1 New Pit Leak
2 Old Clamped Pit
3 New Pit Leak
4 Old Clamped Pit
5 New Pit in Top of Pipe
6 Old Clamped Pit
7 " " "
8 " " "


C.C.C. & St Lou
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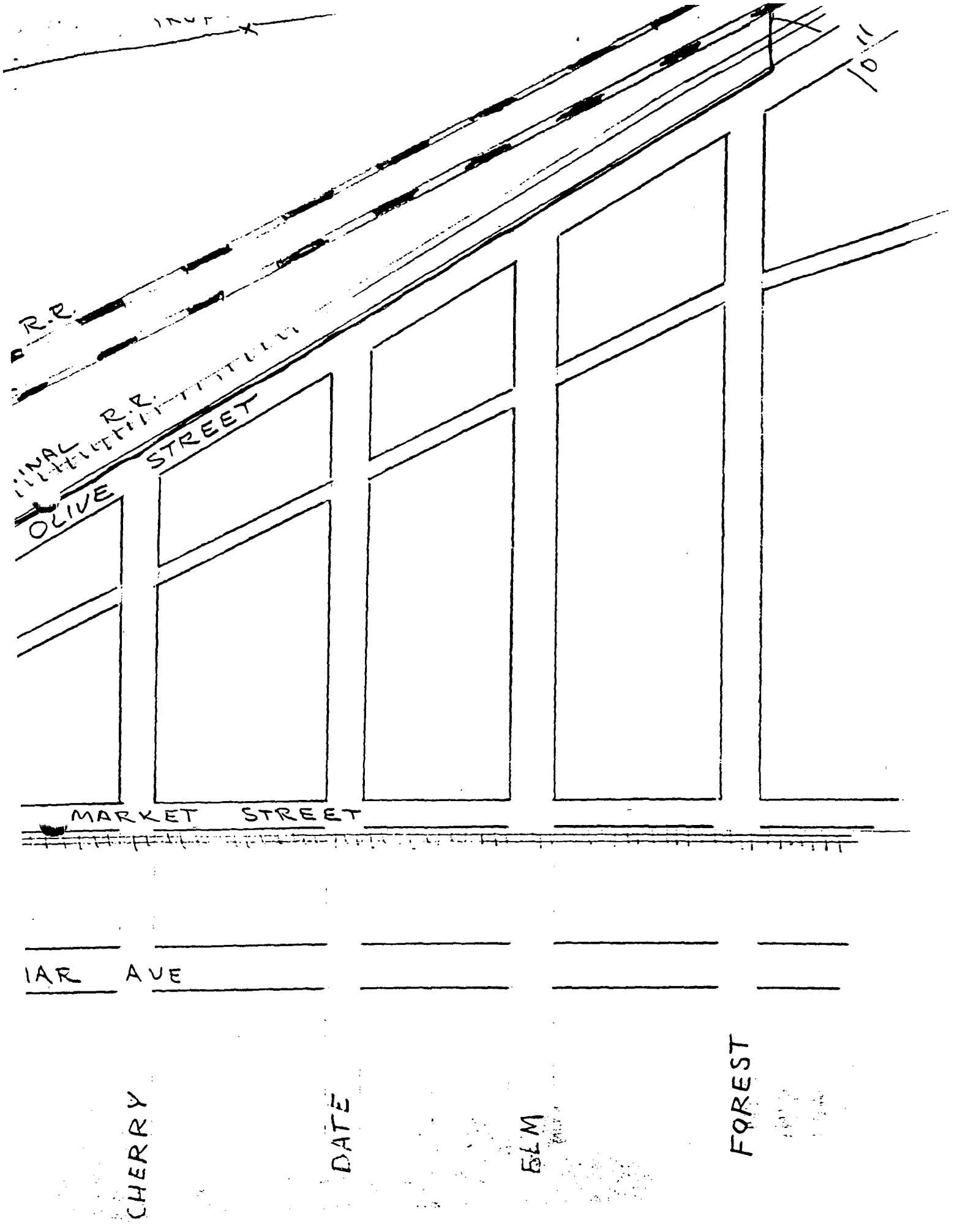
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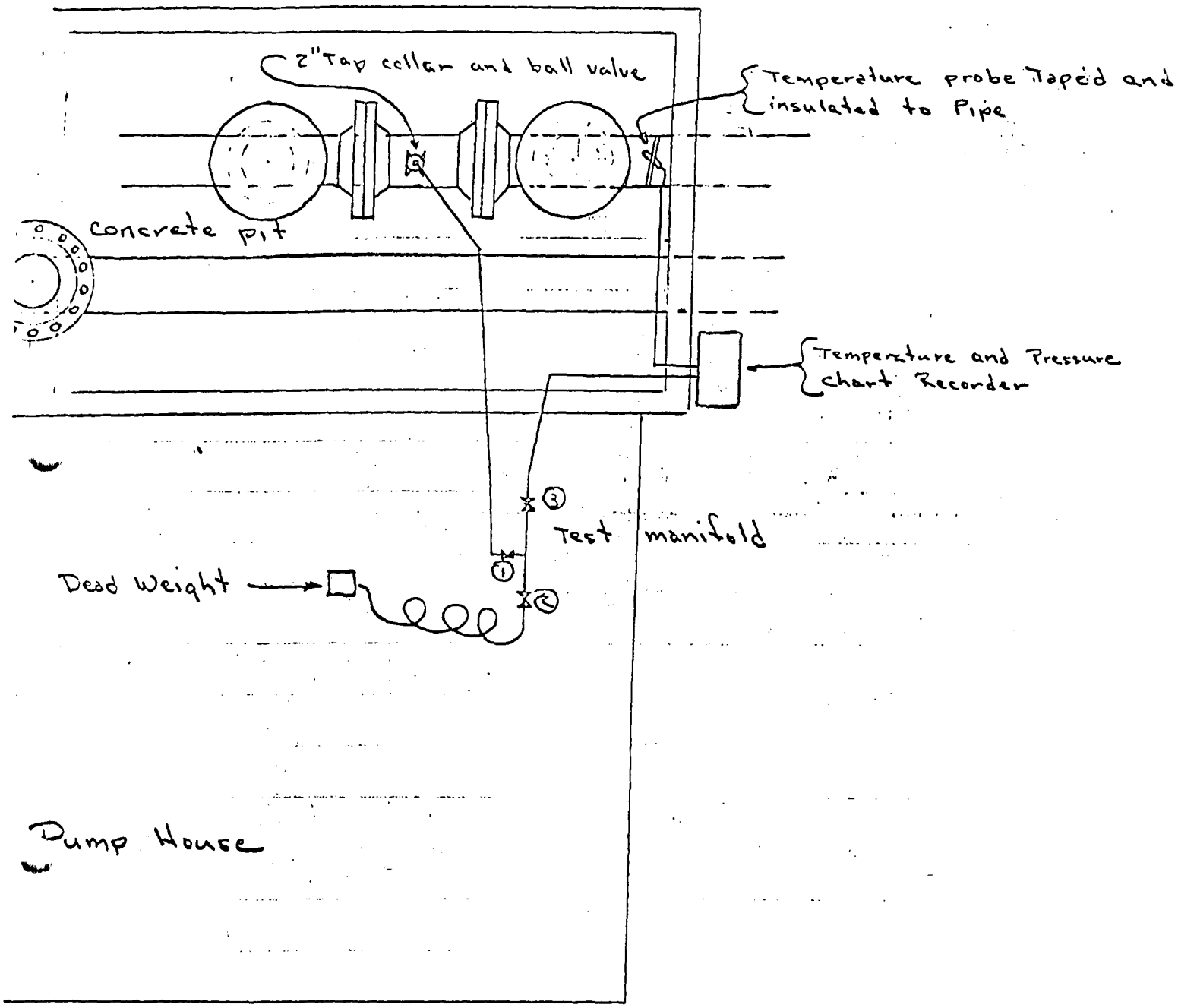
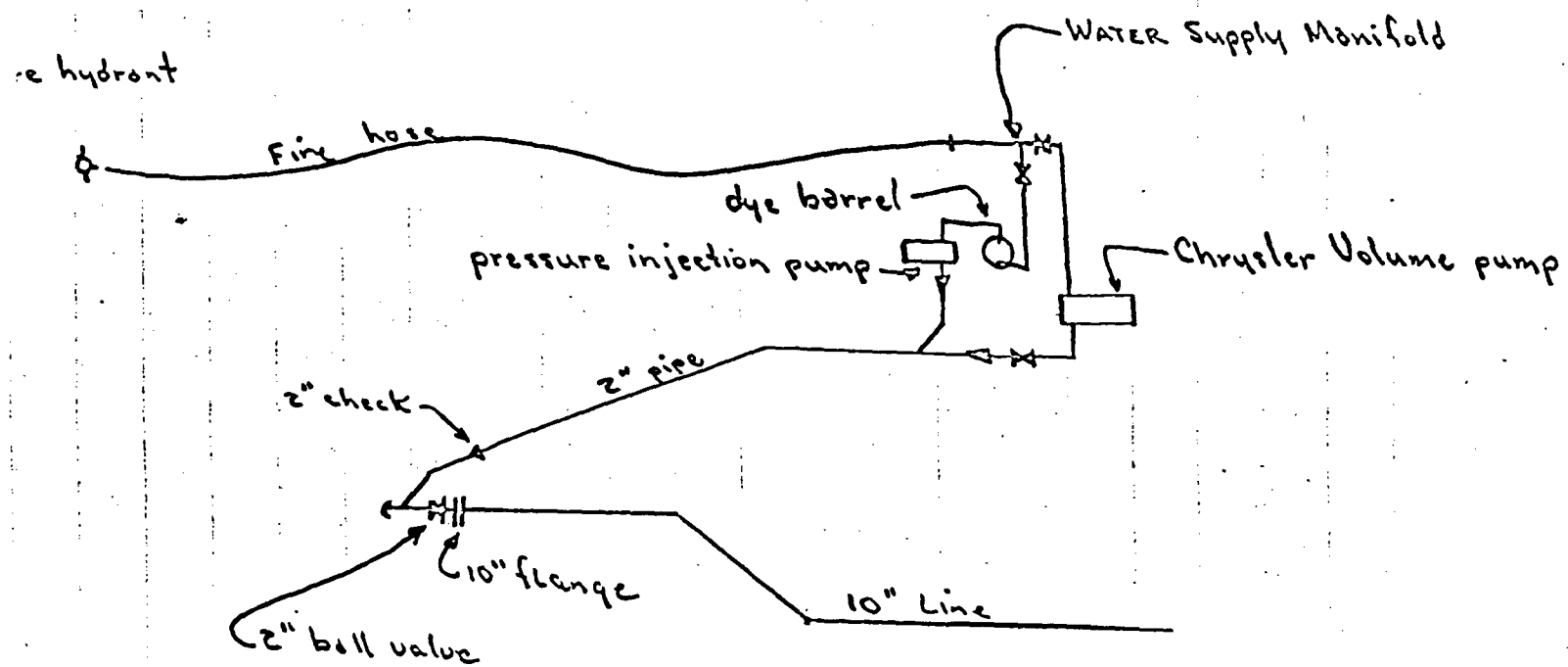
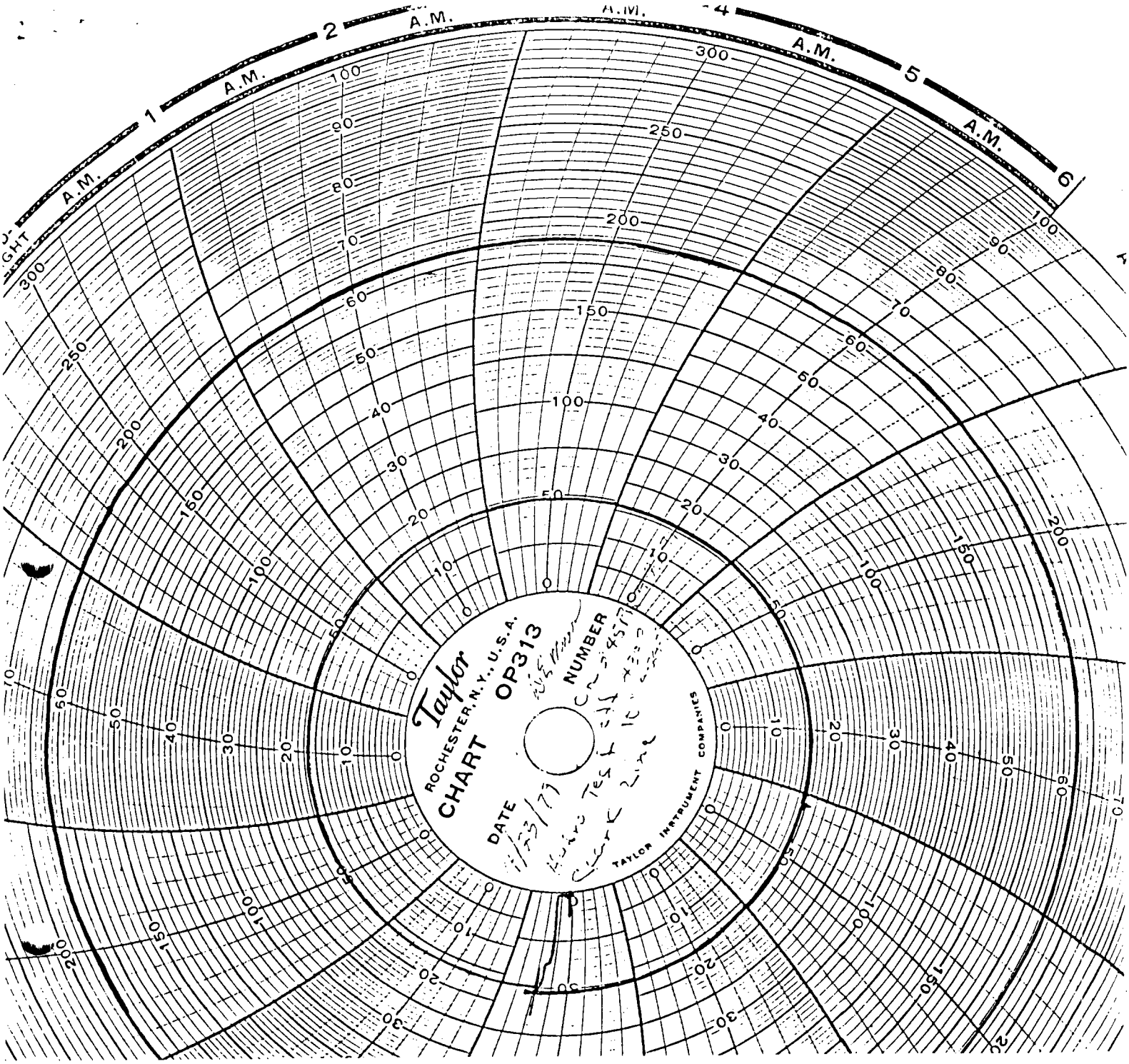

2" Tap collar and ball valve
Temperature probe Taped and insulated to Pipe
Concrete pit
Temperature and Pressure chart Recorder
3
Test manifold
1
2
Dead Weight
Pump House


e hydrant
Fire hose
Water Supply Manifold
dye barrel
pressure injection pump
Chrysler Volume pump
2" pipe
2" check
10" flange
10" Line
2" ball value


Taylor
ROCHESTER, N.Y., U.S.A.
CHART OP313
DATE
NUMBER
TAYLOR INSTRUMENT COMPANIES
1 A.M.
2 A.M.
4 A.M.
5 A.M.
6 A.M.

IV.A. Correspondence from RJ Osborn, APL to RG Beard, Sinclair Marketing. August 28, 1979. AMOCO Connection to ARCO's Wood River Station.

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300

R. J. Osborn, Manager
Midcontinent Region - Operations

RECEIVED
SEP 4 1979
CARROLLTON DISTRICT

August 28, 1979

Mr. R. G. "Bob" Beard
Sinclair Marketing, Inc.
P. O. Box 1677
Englewood, Colorado 80150

Re: AMOCO Connection to ARCO's Wood River Station

Dear Bob:

This letter is intended to reduce to writing the basic points covered in our previous discussions regarding ARCO's role in completing and operating pipe line facilities intended to permit receipt of products at our Wood River Station from AMOCO's Wood River Refinery.

1. ARCO will cooperate with Sinclair in engineering and installation of the required facilities but the costs will be borne by Sinclair, including costs already incurred in the testing of the 10" line.

2. ARCO will develop an Agreement with Sinclair which will provide for Sinclair's recovery of the costs incurred. Sinclair's recovery will be related only to volumes in excess of 2,190,000 BPY. The Agreement will be contingent on volumes increasing to this value within 2 years after completion of the new connection.

3. The line from Clark to ARCO will be owned or leased by Sinclair. ARCO will contract with Sinclair to operate and schedule the line for Sinclair with the provision that ARCO is not liable for losses or damages resulting from the line operation. ARCO's Control Center will be provided with telemetered data from AMOCO's meter for use in surveillance of the line. ARCO will accept custody of product at its station manifold.

Yours very truly,

R. J. Osborn

RJO:ew

cc: Messrs. G. M. Stout
V. P. Driski
Randy Lair
G. E. McEntire - Carrollton

IV.B. Agreement dated 12/31/79 between Sinclair and ARCO Pipe Line Co.

AGREEMENT

This Agreement entered into this 31st day of December, 1979, by and between Sinclair Marketing, Inc., a Delaware corporation having its principal office at 750 West Hampden, P. O. Box 1677, Englewood, Colorado 80150 (hereinafter called "Sinclair") and ARCO Pipe Line Company, a Delaware corporation, having its principal office at ARCO Building, Independence, Kansas 67301 (hereinafter called "APL").

Whereas, Sinclair desires to make deliveries of refined petroleum products from Amoco Oil Company's (hereinafter called "Amoco") Refinery located at Wood River, Illinois to APL's Wood River Pipeline Station located at Hartford, Illinois for transportation over APL's pipelines from said station; and

Whereas, Amoco's Wood River Refinery is not now connected to APL's Wood River Pipeline Station; and

Whereas, the proposed route for connecting Amoco's Wood River Refinery to APL's Wood River Pipeline Station is, as follows:

(1) From Amoco's Wood River Refinery to Clark Oil and Refining Company's (hereinafter called "Clark") Refinery at Wood River, Illinois, over Amoco's pipeline.

(2) From Clark's Wood River Refinery to APL's Wood River Pipeline Station over:

(a) An existing pipeline, presently or formerly owned by Clark, which commences at Clark's Wood River Refinery and terminates on Keller-Piasa Terminal, Inc.'s (hereinafter called "Keller-Piasa") property, adjacent to APL's Wood River Pipeline Station, and which consists partially of pipeline 8" in diameter and partially of pipeline 10" in diameter (hereinafter called "Sinclair Pipeline"); and

(b) A pipeline, to be hereafter constructed on behalf of Sinclair, which shall commence at the termination of the existing Sinclair Pipeline and terminate at APL's Wood River Pipeline Station (hereinafter called "New Pipeline"); and

Whereas, at least a portion of the New Pipeline will lie on property owned in fee by Keller-Piasa; and

Whereas, Sinclair warrants that it now owns or has the exclusive right for itself and its agents, to use the Sinclair Pipeline for the duration of this Agreement and the right to connect the New Pipeline to the Sinclair Pipeline for the purpose of having a connection to APL's Wood River Pipeline Station; and

Whereas, Sinclair desires APL to perform the construction and testing work necessary to connect Clark's Wood River Refinery with APL's Wood River Pipeline Station, which work is hereinafter described in detail; and

Whereas, upon completion of the work necessary to make the connection between Clark's Wood River Refinery and APL's Wood River Pipeline Station, Sinclair desires APL to operate the pipeline between said two facilities.

Now therefore, the parties hereto agree as follows:

1. APL agrees to perform the following work for Sinclair in order to provide a connection between Clark's Wood River Refinery and APL's Wood River Pipeline Station.

a. Obtain from Keller-Piasa, on behalf of Sinclair, the necessary right of way to lay the New Pipeline on Keller-Piasa's property. In the event APL is unable to obtain said right of way after making a good faith effort, this Agreement will terminate with no further obligation or duty on the part of APL, and Sinclair shall pay APL for all work performed prior to said termination.

b. Construct the New Pipeline, on behalf of and for the ownership of Sinclair, 8" in diameter, from the terminus of the Sinclair Pipeline on the Keller-Piasa property, across Keller-Piasa's property and across a portion of APL's Wood River Pipeline Station site to a point on said Station site between APL's meter and APL's booster pump, and make the necessary connections with the terminus of the Sinclair Pipeline and the APL Pipeline Station. Said work shall include all excavation, welding, cleaning, coating, fitting, alignment, testing, bolting of flanges, installation of gaskets, backfilling, cleanup and other work necessary to make the New Pipeline ready for the transportation of refined petroleum products. APL is to furnish all necessary equipment, material and labor to perform said construction work. It is expressly understood by the parties that APL is not responsible for the connection of the Sinclair Pipeline with the Amoco Pipeline, and that Sinclair is to be responsible for this connection.

c. Hydrostatically test all portions of the pipeline between the connection to Amoco's pipeline at Clark's Wood River Refinery, and the connection to APL's Wood River Pipeline Station. The parties acknowledge that APL has previously repaired and pressure tested the portion of the Sinclair Pipeline which is 10" in diameter and which extends from Clark's Refinery to a point on the Keller-Piasa property, and that APL has not yet been compensated for such work. The parties specifically agree that this work shall be covered by the terms of this Agreement, including the amount of compensation owing to APL for such work.

d. Install inside a building to be provided by Amoco at Amoco's Wood River Refinery telemetering equipment with the capability of transmitting readings from Amoco's meters as to the number of barrels of refined petroleum product moved out of Amoco's Wood River Refinery on behalf of Sinclair,

its temperature and its pressure, to APL's control center in Independence, Kansas. Selection of said telemetering equipment will be at APL's sole discretion in order to best coordinate with APL's equipment. Installation of said telemetering equipment will be made at such time as APL modernizes their own telemetering equipment. Date of installation of such equipment is estimated to occur in early 1981. Sinclair shall obtain, with the cooperation of APL, the prior written permission from Amoco to make this installation and to use Amoco's building to house the telemetering equipment, said permission to extend for the duration of this Agreement. If Sinclair is unable to obtain said written permission, APL shall have no obligation to perform the work described in this sub-paragraph.

2. APL will immediately commence performance of the work described in Paragraph 1(a), (b), and (c), and to pursue said work with due diligence. The estimated completion date of said work is January 1, 1980. However, APL assumes no liability for failure to complete the work described in Paragraph 1(a), (b), and (c) by that date, and Sinclair agrees to hold APL harmless for any loss or damage to Sinclair due to such failure to complete said work by January 1, 1980.

3. In consideration of the performance by APL of the work described in Paragraph 1, Sinclair agrees to pay APL as follows:

(a) An amount equal to the actual wages paid to the employees of APL for the time thay are engaged in performing the services hereunder, plus 11.92% of said wages to cover vacation and sick pay. The current straight time hourly wage rates for some of APL's employees (exclusive of the 11.92%) are as follows:

Pipeliner	$ 8.73 an hour
Truck Driver	9.10 an hour
Welder	9.63 an hour
Maintenance Foreman	9.80 to $15.85 an hour
Asst. Maint. Foreman	8.95 to $14.48 an hour
Electrician	10.24 an hour
Mechanic	10.06 an hour
Deliveryman	9.87 an hour

Should the services of other categories of APL's employees be required, their time shall also be charged to Sinclair based on this formula.

(b) An amount equal to 38.45% of the total amount charged under sub-paragraph (a) above to cover various fringe benefits and payroll burden.

(c) The actual living and travel expenses paid to APL's employees, which are necessarily incurred in connection with the performance of services hereunder.

(d) The actual cost incurred by APL for equipment, supplies, utilities and materials used in connection with the performance of services hereunder.

(e) The actual cost incurred by APL for services and materials provided by third parties, in the event APL utilizes a contractor instead of its own employees in connection with the performance of services hereunder.

(f) An amount for use of APL's vehicles based on the then current rates published by APL in its Standard Instructions for owned or leased vehicles (Schedule 3). The present rates are as follows:

Pickups	$.1313 per mile
Automobiles	.1122 per mile
2-Ton Trucks	.2829 per mile

(g) An amount equal to 5% of the total amount charged under sub-paragraphs (a), (b), (c), (d), (e) and (f).

The percentages used in computing compensation due APL pursuant to sub-paragraphs (a) and (b) are subject to renegotiation by APL and Sinclair from time to time to reflect changes in these costs to APL.

4. Upon completion by APL of the work described in Paragraph 1(a), (b), and (c) above and upon Sinclair obtaining the connection between Amoco's pipeline and the Sinclair pipeline at Clark's Wood River Refinery, APL agrees to perform the following services in connection with the operation of the pipeline between Clark's Wood River Refinery and APL's Wood River Pipeline Station:

(a) Schedule, at the direction of Sinclair, product movements with Amoco and Clark on behalf of Sinclair. It is specifically agreed that APL does not guarantee continuous, uninterrupted service on the Sinclair Pipeline and the New Pipeline.

(b) Compare outgoing readings from Amoco's meter at Amoco's Wood River Refinery with incoming readings from APL's meter at APL's Wood River Pipeline Station on an hourly basis during product movement on behalf of Sinclair. It is understood between the parties that Amoco is in the process of obtaining for installation at its Wood River Refinery a meter capable of providing the required metering information, but that such meter is not operational at this time. Until such time as Amoco installs and makes operational such meter, and Sinclair makes the necessary arrangement to convey the meter information to APL, APL has no obligation to perform any work under this sub-paragraph, and incurs no liability whatsoever to Sinclair for failure to perform said work. Until such time as the telemetering equipment is installed and operational, as described in Paragraph 1(d) above, Sinclair will make the necessary arrangements with Amoco to obtain hourly reports from Amoco to APL of Amoco's meter readings during deliveries to APL's Wood River Pipeline Station on behalf of Sinclair. Because the accuracy of Amoco's meter reports and the accuracy of Amoco's meter are beyond the control of APL, notwithstanding the provisions of Paragraph 10, Sinclair agrees to

hold APL harmless from any and all liability which might otherwise arise from the performance by APL of the work described in this sub-paragraph.

(c) Arrange for any necessary routine inspection, testing, staking, maintenance and repairs on said pipeline and take whatever reasonable action is appropriate in the event of an emergency. In the event non-emergency, extraordinary maintenance or repairs are necessary, upon receipt of a written request from Sinclair, APL will arrange to have the extraordinary maintenance or repairs made.

5. APL agrees to perform the work described in Paragraph 4 until January 1, 1981. Thereafter APL will perform such work on a month to month basis, subject to termination by either party, by giving 30 days prior written notice of termination to the other.

6. In consideration of the performance by APL of the work described in Paragraph 4(b), Sinclair agrees to pay APL as follows:

(a) A flat charge of $25.00 per month.

(b) Until completion of installation of the telemetering equipment, described in Paragraph 1(d), an amount equal to APL's cost for necessary long distance telephone calls made in connection with said work.

(c) Upon completion of installation of the telemetering equipment, described in Paragraph 1(d), an amount equal to the actual monthly rental charge for the communications circuit.

7. In consideration of the performance by APL of the work described in Paragraph 4(c), Sinclair agrees to pay APL as follows:

(a) An amount equal to the actual wages paid to the employees of APL for the time they are engaged in performing the services hereunder, plus 11.92% of said wages to cover vacation and sick pay. The current straight time hourly wage rates for some of APL's employees (exclusive of the 11.92%) are as follows:

Pipeliner	$ 8.73 an hour
Truck Driver	9.10 an hour
Welder	9.63 an hour
Maintenance Foreman	9.80 to $15.85 an hour
Asst. Maint. Foreman	8.95 to $14.48 an hour
Electrician	10.24 an hour
Mechanic	10.06 an hour
Deliveryman	9.87 an hour

Should the services of other categories of APL's employees be required, their time shall also be charged to Sinclair based on this formula.

(b) An amount equal to 38.46% of the total amount charged under sub-paragraph (a) above to cover various fringe benefits and payroll burden.

(c) An amount equal to 103.99% of the total amount charged under sub-paragraph (a).

(d) The actual living and travel expenses paid to APL's employees, which are necessarily incurred in connection with the performance of services hereunder.

(e) The actual cost incurred by APL for equipment, supplies, utilities and materials used in connection with the performance of services hereunder.

(f) The actual cost incurred by APL for services and materials provided by third parties, in the event APL utilizes a contractor instead of its own employees in connection with the performance of services hereunder.

(g) An amount for use of APL's vehicles based on the then current rates published by APL in its Standard Instructions for owned or leased vehicles (Schedule 3). The present rates are as follows:

Pickups	$.1313 per mile
Automobiles	.1122 per mile
2-Ton Trucks	.2829 per mile

The percentages used in computing compensation due APL pursuant to sub-paragraphs (a), (b), and (c) are subject to renegotiation by APL and Sinclair from time to time to reflect changes in these costs to APL.

8. Following the end of each month in which APL performs work hereunder for Sinclair, APL shall submit to Sinclair a monthly statement reflecting the total compensation due APL for the work rendered during that month. It is understood and agreed that the first such statement shall include the repair and testing of the pipeline previously performed and described in Paragraph 1(c). Payments shall be made by Sinclair to APL within 30 days after each such statement is submitted.

9. All Notices pertaining to this Agreement shall be addressed to:

ARCO Pipe Line Company
ARCO Building
Independence, KS 67301
Attention: R. J. Osborn

and

Sinclair Marketing, Inc.
750 West Hampden
P. O. Box 1677
Englewood, Colorado 80150
Attention: Robt. Beard

and shall be deemed to have been duly given if delivered, or when mailed by certified mail, postage prepaid, to the respective addresses shown above, return receipt requested.

10. Sinclair hereby releases APL and holds APL harmless from any and all claims for loss by or damage to Sinclair arising out of, in connection with, or as an incident to any act or omission, except that directly attributable to the gross negligence of APL or its employees, agents, or contractors, in connection with the performance of the work or services hereunder. Sinclair further

agrees to indemnify and hold APL harmless from any and all loss, cost, claim or damage arising in connection with the performance by APL of the work or services hereunder, except when due to the gross negligence of APL.

In Witness Whereof, the parties hereto have executed this Agreement on the date set forth in their respective acknowledgments, to be effective on the day and year first above written.

Approved as to form
Legal Department

ATTEST:

J. G. Hammond, Ass't. Controller

ARCO PIPE LINE COMPANY

Gail M. Stout, Vice President

ATTEST:

Asst. Secretary

SINCLAIR MARKETING, INC.

STATE OF KANSAS)
) SS
COUNTY OF MONTGOMERY)

The foregoing instrument was acknowledged before me this 28th day of December, 1979 by Gail M. Stout, Vice President of ARCO Pipe Line Company, a Delaware corporation, on behalf of the corporation.

Notary Public, Montgomery County Kansas

My commission expires
January 29, 1981

STATE OF COLORADO)
) SS
COUNTY OF ARAPAHOE)

The foregoing instrument was acknowledged before me this 2nd day of January, 1980 by R. E. LITTLE, VICE President of Sinclair Marketing, Inc., a Delaware corporation, on behalf of the corporation.

Notary Public, ARAPAHOE County, COLORADO

My commission expires
APRIL 4, 1980

(This instrument prepared by Cynthia L. Claus, Attorney, ARCO Pipe Line Company, ARCO Building, Independence, KS 67301)

IV.C. APL Inter-Office Communication, APL, December 31, 1979. From EJ Temple to G.E. McEntire – Carrollton. Changes in Operations - Wood River Station.

Inter-Office Communication

RECEIVED
JAN
~~DEC~~ 0 2 1980
CAR. DIST. OFF.

Date: December 31, 1979

To: Mr. G. E. McEntire - Carrollton

From: E. J. Temple Copy to Whitt + Shull

Subject: Change in Operations - Wood River Station

General

Our present mode of operating at Wood River is to receive products from the Explorer Pipe Line into tankage belonging to Keller-Piasa. From tankage, it is shipped by ARCO Petroleum Products Company and delivered to terminals at Mexico, Carrollton, and Fort Madison.

Effective January 1, 1980, when ARCO ceases pulling product from the Keller-Piasa tankage, Sinclair Marketing, Inc. will then become the shipper with the supply source coming direct from Amoco. After January 1, Amoco will be the sole supplier. After the change over, products will continue to be delivered to Mexico, Carrollton, and Fort Madison.

A full complement of products will be handled, including unleaded gasoline. There could conceivably be a limiting factor in product supply from Amoco in that the manifold at their location supplies other customers. Priority may dictate what company will be serviced first. Amoco calculates about 40% of their pumping time will be necessary to fulfill volumes required for Sinclair.

Flow rates will continue in our present range of operation between 400 and 750 BPH. Amoco has capability of regulating the throughput capacity. Amoco has two units which can be run to this line; one rated at 176# @ 0 flow and the other 260# @ 0 flow. We must exercise caution that a unit too large not be used so as to protect our low pressure piping in the Wood River manifold in case Wood River Station shuts down for some unexpected reason. Normal operating condition would be to control the suction pressure at approximately 50# and not exceed 150#.

The Amoco facility is located approximately three miles from our Wood River Station. The line fill between the two points is approximately 1250 barrels. The definite line fill will be established after the engineering line fill is known.

Scheduling

Sinclair will submit their nominations for products to ARCO in Independence by the 20th of month preceding the month which the products are to be moved. ARCO will, in turn, forward nominations to Amoco not later than 25th of preceding month. ARCO nominations will be sent to Mr. Dan Wray, 400 S. Main, Wood River, IL 62095.

Mr. Gary Kebert at Independence (316 331-1300, Ext. 665) will work with the Amoco scheduler, Mr. Dan Wray or Mr. Tom Cattleman, at Wood River (618 254-7351, Ext. 332).

Line Fills

From the Amoco meter site to the ARCO tie-in at our Wood River Station, product in line will belong to Sinclair. Line fill is approximately 1250 barrels.

The line fill from Wood River to Carrollton and on to Fort Madison will eventually become Sinclair's as the line fill belonging to ARCO Petroleum Products is displaced.

Meter Provings

ARCO meters at Wood River will continue to be proved on a monthly basis and in accordance with our Meter Proving Procedures Manual, Standard Instruction 5-7. Sinclair witnesses should be encouraged to attend whenever possible. Amoco will also be welcomed to witness.

Unless a discrepancy exists, ARCO will not furnish a witness to the Amoco provings.

Meter proving reports will be distributed in the following manner:

Original - District office
1 copy - Oil Movements, Independence
1 copy - Sinclair Marketing, Inc. (Mr. Al Lemke, P. O. Box 1677, Englewood, CO 80150)
1 copy - File at location
1 copy - Amoco

Meter factor reports will be distributed the same as above except that one copy will be sent to Oil Accounting at Independence.

Operation

Activities of line will be under supervision of ARCO Control Center. At start-up time, there will be no Company phone communication between Independence and the Amoco facility. Bell phone will be used until Company communications can be installed. In the meantime, under supervision of Control Center, contact will be handled locally at Wood River between Chief Deliveryman Whitt and the Amoco Chief Pump House Operator with regards to exact start up and shut down times, along with product change times and other incidentals necessary in operating the system. Basing line fill from Amoco to ARCO at 1250 barrels, it will take, at 750 BPH rate, approximately one hour and forty minutes for the product change to arrive at Wood River Station.

The barrel count will be transmitted from the turbine meter at Amoco to Independence. This meter count compared with transmitted barrels from ARCO's meters at Wood River will afford the line surveillance necessary between the two points.

At start-up time, Amoco will not be equipped for metered measurement. The turbine meter is scheduled for installation in approximately thirty

days. Until that time, it will be required that Amoco operating personnel call Independence not to exceed two (2) hour intervals, giving the barrels pumped for that period of time based on tank gauged quantities.

Custody - Run Tickets

Custody will take place at both locations; at Amoco manifold where Amoco will make tickets for account of Sinclair and at the ARCO meter site where tickets will read:

Location:	Wood River, Ill. 8" West
Received From:	Sinclair Marketing, Inc. (see address above)
For Account:	Sinclair Marketing, Inc.

Ticket distribution at Wood River will be as follows:

Original - ARCO Pipe Line, Independence
1st copy - Sinclair Marketing, Inc.
2nd copy - Amoco
3rd copy - File

Run tickets at delivery terminals will show Sinclair Marketing, Inc. as the shipper after the ARCO product is displaced from the line. This direction on shipper status will come from the Oil Movements scheduler/coordinator.

EJT/dm

cc: R. J. Osborn
V. P. Driski
J. L. Allison
K. J. Junk
G. L. Kebert
J. L. Whitt - Wood River, IL

IV.D. Correspondence, October 6, 1980. From VP Driski to Sinclair Marketing. Integrity check between APL meters and Amoco pump discharge.

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300

V. P. Driski, Manager
Oil Movements

October 6, 1980

Mr. Bob Beard
Sinclair Marketing, Inc.
P. O. Box 1677
Englewood, CO 80150

Dear Mr. Beard:

Conversations with this office after our connecting to the Wood River Amoco Refinery for your supply of products to our Wood River to Carrollton pipeline system indicated you desired confirmation of integrity check between ARCO Pipe Line meters and Amoco pump discharge.

Upon initiation of the operation, Amoco was able to provide only periodic tank gauge checks which proved to be very unsatisfactory for system integrity checks. June of this year Amoco installed a meter that is unproven but permits Amoco to provide our Control Center with meter readings to make a system check by. These readings, however, are not provided hourly as originally requested.

Attached are two copies each of our daily reports for 7 a.m. the First of July, August, September, and October reflecting continuity of integrity in Sinclair's interest between Amoco and ARCO Pipe Line. As explained, before July 1 reliable information was not available from Amoco and ARCO Pipe Line programs required modification before this information was available.

We will be able to provide you a copy of this report on conclusion of each month's activity henceforward or until directed to discontinue. We trust this will satisfactorily serve any agreement our offices may have had on system surveillance.

Please call if you have any future questions or comments. Future transmittals will be directed to both you and Mr. Arnie Holmes per your instructions.

Very truly yours,

V. P. DRISKI
Manager, Oil Movements

JLA:mah
cc: Messrs. R. J. Osborn - w/attach
J. L. Allison - w/attach

OCT - 8 REC'D

IV.E. APL Inter-Office Communication, November 25, 1980. From G.E. McEntire, Carrollton, to R.J. Osborn, Independence. Cathodic Protection 10" Pipeline Clark Refinery to Wood River Station.

Date: November 25, 1980

To: R. J. Osborn - Independence

From: G. E. McEntire - Carrollton

Subject: Cathodic Protection 10" Pipeline Clark Refinery to Wood River Station

George Wren ran pipe to soil test on this line during the week of August 25, 1980 and determined that it would take approximately 50 magnesium anodes in the 32 to 48 pound class.

It appears to be more economical to hire a backhoe and use Company labor to install this quantity of anodes as it is too risky to attempt to auger holes because of the number and location of unknown lines in this area.

The cost of this project would be approximately $11,000.

GM/d

IV.F. APL Internal Correspondence, May 11, 1984. From D.P. Driski to R.J. Osborn. Wood River Station Supply Source for Sinclair.

ARCO Pipe Line Company

Internal Correspondence

Date: May 11, 1984

Subject: Wood River Station Supply Source for Sinclair

From/Location: V. P. Driski

To/Location: R. J. Osborn

This memo is intended to advise that Sinclair has informed Oil Movements that Sinclair's Throughput Agreement with AMOCO at Wood River will be terminated the end of this month. Effective June 1, 1984, Sinclair will supply volumes for their Mexico, Carrollton, and Ft. Madison Terminals from Explorer Pipe Line through the Hartford (Keller-Piasa) Terminal.

APL receipts will be from the Hartford Terminal tankage. This operation will be the same as it was prior to Sinclair making their connection with AMOCO at Wood River.

JLA:mes

cc: G. M. McEntire
L. W. Strecker
D. H. Godsey

IV.F. Invoice 14435, January 5, 1983. Costs incurred by ARCO Pipeline Company in connection with operation of [Hartford 10-inch pipeline]. Notation indicates invoice for repair to line leak which occurred 11/5/82 outside refinery property.)

IV.G. APL Internal Correspondence, August 23, 1990. D. Dooley to M.P. Gallegos and D.W. Allyn. Procedure for Evacuation of Product from 10-inch Line Running from Clark Refinery to Wood River Station in Hartford, Illinois.

ARCO Pipe Line Company

Internal Correspondence

Date: August 23, 1990

Subject: **Procedure for Evacuation of Product from 10-inch Line Running from Clark Refinery to Wood River Station in Hartford, Illinois.**

From/Location: Dennis Dooley - Carrollton

To/Location: Manuel P. Gallegos - IK 208
Daniel W. Allyn - Shawnee

We have scheduled the week of August 27, 1990 for the evacuation of product from the 10-inch line running from Clark Refinery to Wood River Station.

8/27/90 ARCO will install a two-inch tap and valve near the south gate on ARCO property.

8/28/90 Sinclair will have tank trucks in place at south gate on Tuesday morning and will take suction on line. Once product is being received in tank trucks, ARCO will give the 10-inch line air at the Clark end of the line. After tank trucks lose suction on line, a blind flange will be removed and a 10-inch poly-pig will be inserted in the line at Clark Refinery. Line will be flanged back up with a two-inch valve in place for nitrogen hookup. The Carrollton gang will return to Wood River Station and bolt a spool on a ten-inch flange to receive poly-pig and install skillet blinds at Clark's ten-inch valve and at ARCO's six-inch valve.

After everything is flanged up and gauges installed to monitor pressure, the line will be ready for nitrogen purge.

8/29 or 8/30 Consolidated Oil Well Services will hook up to two-inch valve at Clark Refinery. Radio contact will be confirmed and at that time Consolidated will start injecting nitrogen. Once poly-pig is received at Wood River Station, the ten-inch line will be turned over to Sinclair for them to perform DOT pressure test.

RDD/jm
xc: Maurice Madden - Sinclair
Kenny Grove - Sinclair

NITROGEN FLOW AND LINE FILL CALCULATIONS

DATE: 08-21-1990

PROJECT TITLE: clark 10 inch

PIPELINE DIMENSIONS

OUTSIDE DIAMETER.....(inches)= 10.75
WALL THICKNESS.....(inches)= .365
INSIDE DIAMETER.....(inches)= 10.02
LENGTH.....(miles)= 1

N2 PROPERTIES

PRESSURE.....(psig)= 100
TEMPERATURE.....(deg F)= 60
COMPRESSIBILITY FACTOR.....= .998
DENSITY.....(lbs/ft3)= .57
* .....(scf/ft3)= 7.84
* .....(scf/bbl)= 44

LINE CAPACITY

BARRELS.....= 514.97
GALLONS.....= 21628.6
CUBIC FEET OF SPACE.....= 2891.33
BARRELS PER FOOT.....= .09753
BARRELS PER MILE.....= 514.97
SCF OF N2 AT 60 F AND 100 PSIG...= 22676.23

FLOW RATE

N2 INPUT RATE.....(scf/min)= 150
BARRELS PER HOUR.....= 204.4
GALLONS PER MINUTE.....= 143.1
CUBIC FEET PER SECOND.....= 2.5

VELOCITY

MILES PER HOUR.....= .4
FEET PER SECOND.....= .6

FILL TIME

TOTAL TIME TO FILL AT SPECIFIED INPUT RATE (HRS)= 2.52

V.A. Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Co., to T. Hillig, St. Louis Post-Dispatch, September 8, 2003. (citing Village of Hartford Reporting Officer, November 5, 1982).

APEX OIL COMPANY, INC.

8235 Forsyth Avenue – 4th Floor
St. Louis, Missouri 63105
(314) 889-9600

September 8, 2003

Mr. Terry Hillig
St. Louis Post-Dispatch
Madison County Bureau
123 Rottingham Court
Edwardsville, Illinois 62025

Dear Mr. Hillig:

Over the next several days or weeks, you might have occasion to report on the underground gasoline issue in Hartford, Illinois. As you know, Apex Oil Company, Inc. and The Premcor Refining Group, Inc. have been involved in legal proceedings on this topic. For this reason, I wanted to share information learned in our company's investigation into the history of the gasoline plume under the Hartford area. We believe this information provides a clearer and more comprehensive picture of the problems stemming from the refineries in and around Hartford and their cause.

We have determined that there are many sources of the gasoline plume, and that Apex Oil, Premcor, and the Clark refinery are only a part of that picture. In fact, during the time our company operated the Clark refinery, we believed we acted responsibly in addressing the issue. Our company continued to operate wells installed by the previous owner that recovered more than 1 million gallons of petroleum products from the top of the water table beneath Hartford. As a result, we believed the problem was being rectified.

The information we have received to date suggests the following:

- There is substantial evidence which suggests that the Shell refinery was the source of the reemergence of the gas odor complaints in Hartford in 1990.
- We believe Hartford actually may have two hydrocarbon problems: one is methane and the other is gasoline sitting on top of the water table. We have discovered what we believe may be the source of the methane, which we do not believe was the Clark refinery.
- The evidence supports the conclusion that the gasoline and other petroleum products in the plume are a mixture of products from more than the Clark refinery.
- We believe there have been numerous releases of gasoline and other hydrocarbons in the Hartford area over the years that could have contributed to the gasoline plume. This may include the former White Star refinery, which had a catastrophic fire in 1928 that resulted in the loss of hundreds of thousands of gallons of petroleum products.

Direct Line: (314) 854-8520 Fax: (314) 889-9603 e-mail: dhommert@apexoil.com

We believe that understanding the history is a step toward developing solutions that make sense for Hartford residents and for all other parties. We hope the attached summary of our research will be of help in understanding this complex situation. Please don't hesitate to call if I can provide further information.

Sincerely,

Douglas D. Hommert

Enclosure

Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue

Apex Oil Company, Inc. recently reviewed scores of documents and court papers, interviewed former employees at area refineries and combed previous news coverage to better understand the history of the gasoline plume under the Hartford, Illinois area. What emerged is a picture of a far more complicated situation – dating back 80 years or more – than previously believed.

Here is what our research has shown to date:

- We believe there is substantial evidence suggesting that **the Shell refinery was the source of the reemergence of the gas odor complaints in Hartford in 1990.**

- We believe **Hartford actually might have two hydrocarbon problems:** one is methane and the other is gasoline sitting on top of the water table. We have discovered what we believe to be the source of the methane, which we do not believe was the Clark refinery.

- We also believe that **evidence supports the conclusion that the gasoline and other petroleum products in the plume are a mixture of products from more than the Clark refinery.**

- In addition, we believe there have been **numerous releases of gasoline and other hydrocarbons in and around Hartford over the years that could have contributed to the gasoline plume.** This includes the former White Star refinery, which had a catastrophic fire in 1928 that resulted in the loss of hundreds of thousands of gallons of petroleum products.

Spills Associated with the Shell Refinery

In December 1989, a Shell pipeline broke near Rand and North Olive in Hartford and purportedly released 294,000 gallons of unleaded gasoline. Shell and the Illinois EPA determined that this gasoline did not make its way under Hartford. We believe this might have been in error.

There were many gas odor complaints and fires in Hartford in 1978. The Illinois EPA became involved and concluded that the gasoline plume (then estimated to be around 1 million gallons) existed beneath the Village. In 1978 and 1979, Clark Oil and Refining Corporation ("Old Clark"), then owner of the Clark refinery, installed two recovery wells in Hartford and began extracting gasoline from on top of the water table beneath the Village. Between 1978 and 1990, over 1 million gallons of gasoline was extracted. Nonetheless, complaints of gas odors reemerged in Hartford in early 1990.

In reviewing the locations of gas odor complaints Hartford officials received between 1978 and 1990, there were a substantial number of properties affected in 1978. In 1979, there also were a substantial number of affected properties, but those at the fringe of the plume did not report any problems. There were no complaints in 1980, a few in 1981, a few more in 1982, none in 1983, two in 1984, one in 1985 and none in 1986, 1987, 1988 and 1989. **This suggests that the problem was being addressed by the recovery wells.**

In December 1989, **Shell spilled almost 300,000 gallons of gasoline near Rand and Olive streets in Hartford. In February 1990, the Shell refinery spilled over 670,000 gallons of crude oil. Shortly after, Village officials were inundated with complaints about gas odors.** Since the initial 1 million gallons of gasoline had been removed (or nearly removed) by that time, gas odors should not have recurred unless there was another influx of product. This suggests that the Shell spills were the source of this influx.

We questioned whether rises in the water table could have accounted for the return of the problem in 1990. According to data from the U.S. Army Corps of Engineers, in 1978 the level of the Mississippi River at Hartford was around 420 feet and in 1979 it was around 423 feet. Since these were years with a large number of complaints, we would assume that odor complaints would increase if the river level was 420 feet or higher (everything else being equal). In 1982 the river was at 425 feet with just a few complaints, at 425 feet in 1983 with no complaints, over 420 feet in 1984 with two complaints, over 420 feet in 1985 with one complaint and over 425 feet in 1986 with no complaints. The river reached 420 feet in 1990 and numerous complaints returned. However, if river level was the impetus for the substantial increase in complaints in 1990, we would have expected a great number of complaints in 1983, 1984, 1985 and 1986 as well. Since that did not happen, it seems likely that the reemergence of the gas odor complaints was primarily caused by an influx of product as opposed to a rise in the river level. **Shell is a known source of potentially large influxes after 1978 and through 1990.**

Possible Source of the Methane - the White Star Refinery and Grassy Lake

John Mathes and Associates conducted a study in 1978 of the gasoline plume and issued a report. The Illinois EPA also conducted an investigation into this pool of gasoline. The results of the Agency's investigation are in a report titled "Hartford Underground Hydrocarbon Investigation" that was issued in November 1990. The Mathes report and the 1990 Illinois EPA report indicated that the gasoline problem in Hartford first arose in 1966. **We believe they may have been off by at least 40 years and that the problem first arose as early as the mid-1920s.**

The Clark refinery is one of three refineries currently bordering Hartford. However, **there was a fourth refinery in Hartford, the White Star refinery,** which was dismantled by the time the Clark refinery was built in 1940. The Amoco refinery is just north of the Clark refinery, the Shell refinery is just east and northeast of the Clark refinery and the White Star refinery was just north of where the Clark refinery is now, just east of the old International Shoe tannery property and just west of the Shell refinery. Numerous pipelines cross Hartford, connecting these refineries to docks on the Mississippi River, as well as connecting the refineries to other oil terminals and pipelines in the area and to each other.

The White Star refinery was constructed in 1919 by the White Star Refining Company and became the third refinery in the Hartford area (the others are the Amoco refinery and the Shell refinery). **The White Star refinery had a catastrophic fire on July 23, 1928 in which 15 large tanks of products were destroyed.** The *Alton Evening Telegraph* published the following story on the fire on July 23, 1928:

Plant Swept By Blaze, Started By Spark from Train

Fire which was threatening to destroy the entire plant of the White Star refinery in Wood River township in Hartford was burning with unabated fury this noon as the result of a spark from a passing locomotive setting off some waste oil floating on Grassy Lake, along the Illinois Terminal railroad track.

A field of 68 great tanks, filled with various oils, crude, refined and semi-refined, was in the path of the flames. So dense was the smoke, so intense the heat, it was impossible to know just how many tanks were involved in the destruction until the fire fighting forces could make headway.

Though the Roxana Petroleum Co.,[1] the Standard Oil Co.,[2] and the municipalities of Wood River, Hartford and Roxana all loaned all the fire fighting equipment they had, the fire fighters made very little if any headway. Efforts were confined to preventing spread of the flames, but new bursts of fire, with increased volumes of smoke seemed to indicate that new tanks were being involved.

The tanks which were in the fire range were of from 30,000 to 80,000 barrels contents. One tank which was pumped dry contained 15 car loads of gasoline which was to have been shipped out today.

The fire broke out at 10 o'clock this morning. It flared up in the little oil covered lake of waste oil and quickly spread to the big tanks which were not far off. Three of the tanks contained gasoline and five contained pressure distillate....So intense was the heat, tanks of crude oil were set afire.

One of the measures for reducing the danger was the drawing of oil out of the tanks by pumping but the hope of accomplishing much at times seemed slender.

* * * *

The pressure distillate in the burning tanks is composed of about 80 per cent gasoline. It is the product of the Dubbs cracking plants and later goes through the process of distillation, where the gasoline in it is taken out.

Victor Roaf, office superintendent of the International Shoe Co., directed a crew of men throwing up an earth embankment around the edge of the tannery grounds, which adjoin the refinery on the west. The measure was taken as a precaution against the spread of burning oil and pressure distillate over the tannery grounds in case the burning tanks should melt from the heat and permit the flaming liquid to spread over the fields.

* * * *

So intense were the flames that there was danger that, unless the safety valves on top of the gasoline and pressure distillate tanks worked, the tanks might explode, from heat alone.

The radiation from the burning tanks could be felt at the road 200 or more yards away from the nearest one, even when the wind was blowing toward the south, away from the road.

* * * *

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[1] Now Shell.

[2] Now Amoco.

In the field east[3] of the refinery the waste from the plant is dumped. Water collects in the field also, and on this the oil forms a film. The lake of oil waste extends to the edge of the International Shoe Co., property. It was over this oil-blackened water that the blaze started from the spark of the switch engine swept this morning.

Fire Licks Up Lake Water

The ground beneath the oil and water was also oil soaked and where it jutted above what was left was still burning in spots. It took the thin film of oil but a few minutes to be swept off by the flames.

The following day (July 24, 1928), the *Telegraph* reported:

Flames Rage 26 Hours at Oil Refinery

Fire at the White Star refinery at Wood River was extinguished at noon today, 26 hours after it was started, at 10 a.m., Monday apparently by the spark from the locomotive of a switch engine. All through the night and this morning men battled the raging flames and succeeded in putting-out the blaze only after 15 tanks had been destroyed.

The fire had been gotten under control this morning, with nothing to be done but let blazing oil which could not be salvaged burn itself out. The fire had been contained last night to one blazing tank after 14 tanks which had been filled with gasoline and fuel oil and one with caustic soda had been destroyed. Not all of the contents of these tanks had been burned as there had been some success in drawing off the oil from them to more remote tanks which were less likely to be attacked by the fire.

The most expensive part of the refinery, the big cracking plant, together with smaller stills, had escaped the flames, which was a great saving as it would have taken months to have rebuilt the part of the plant where the refining process is actually carried on.

About 11 o'clock last night a tank, which had been used as a reservoir to which to transfer oil from burning tanks, it was believed had run over and a great quantity of oil was spilled on the ground. The process of withdrawal of oil from a threatened tank is to pump it out at the bottom. The other big refineries have very complete facilities for withdrawing oil when a tank catches fire, being able to move about 2,000 barrels an hour. It was while this process was going on in the White Star refinery last night when the overflow was believed to have occurred which aroused new fears....

It turned out that what was believed to be an overflow was the bursting of a large main which was carrying oil, and which was releasing the oil, spilling it on the ground. Efforts to shut off the main proved unavailing

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[3] We believe this reference should be to the west since the tannery property was to the west of the White Star refinery and the waste dump was between them.

and this morning the fire was still going on where this fracture of the pipe line occurred.

The above stories show that as early as 1928, large quantities of gasoline and other petroleum products had leached into the ground just east of northern Hartford.

The White Star refinery continued to operate after the fire, but ceased operations without explanation in September 1932. On October 31, 1932, the *Telegraph* reported that the White Star refinery would be closed permanently. According to the *Telegraph*, company officials again refused to give an explanation.

We believe the reason the White Star refinery closed might have been an injunction suit filed on July 22, 1929 in the Circuit Court of Madison County, Cause No. 5464, Chancery Division styled *Shelby Loan & Trust Company v. White Star Refining Company*. The plaintiff owned property southwest of the White Star refinery, and Grassy Lake covered part of its property. The plaintiff claimed that White Star had so polluted Grassy Lake that it destroyed the value of its property and that the situation was a nuisance, and requested the court to enjoin White Star from maintaining the nuisance and requiring the oil company to abate the pollution it had caused.

White Star denied the allegations and, on October 29, 1930, apparently had the case removed to the United States District Court for the Southern District of Illinois. For reasons not known at this time, the case was remanded back to the Madison County Court, and hearings were held before a special master. On September 12, 1932 (just 12 days before the *Telegraph* first reported that the White Star refinery had ceased operations for unknown reasons), the court entered a 25-page opinion in favor of the plaintiffs and against White Star. Excerpts from the decree follow:

> *That said real estate belonging to the complainant...is located in such a manner that a portion of a body of water commonly called Grassy Lake, extends over and upon a substantial portion of said real estate and did so extend over said real estate at the time it became the property of the complainant...; and did so extend over thereon for many years prior thereto; that the portion of the real estate above described not covered by said portion of said Grassy Lake is tillable ground and rich soil and at the time the complainant...became the owner of said real estate, was rich, fertile, tillable and productive and was rented for profitable rentals.*
>
> *That at the time the complainant...took title and became the owner of said real estate, the waters of said Grassy Lake were sweet, wholesome and pure and free from impurities, oil, acids, chemicals and filth, and the bottom of said lake was clear and free from noxious substances; and had so been for many years prior thereto;*
>
> * * * *
>
> *That from the time the mind of man runneth not to the contrary there has existed in the southern edge of Wood River Township and extending southward or southeasterly for a mile or so, through Chouteau Township, a fresh water lake known and designated by every one as Grassy Lake, being the said lake above described; that this lake covers at the present time and has covered at various times, throughout a number of years, an area of about three hundred acres; said lake is shallow, having a maximum depth of from five to seven feet; the depth of*

the waters at normal stage over the greater part of the lake is but a few inches to a foot deep.

That said Grassy Lake lies in a general North and South direction tending somewhat Northwest and Southeast; that the North end of the lake as it extended before any industries come into this section or community was about three-quarters of a mile North of the township line separating Wood River and Chouteau Townships; that it extended South or Southeast from the township line in Chouteau Township a mile to a mile and a half, then drained across the low lands of the American Bottom finally finding an outlet in the Mississippi River.

That the whole of the bottom of Grassy Lake is privately owned and that a portion of said lake is owned by the complainant and a portion of what was formerly Grassy Lake is owned by the defendant in this cause.

* * * *

That [Amoco] located their plant in this vicinity in about the year 1907, that [Shell] located their plant where it is now in about 1917, that [White Star] located their plant on its present location in 1919; that the International Shoe Company also located their plant by 1919 or a short while before; that the Big Four Railroad Company, whose main track extends along on the west side of the International Shoe Company property north and south, shortly after [Shell] had located their plant, built a switch track along the township line, leaving their main track on the east and following in an eastwardly direction along the north side of the township line crossing Grassy Lake on an embankment which they threw up extending east across the lake along the south side of the Alton-Edwardsville road for about one-half the distance along the [Shell] property, then crossing the slab of the said road and entering in and upon the [Shell] property; that where the track crosses Grassy Lake there was left in the embankment an opening so that the water from the north side of the embankment would find its way through this opening into Grassy Lake on the south; that opening still exists but a sewer pipe has replaced a trestle that was first placed there.

* * * *

That since the beginning of the operation of [Amoco] they have maintained a sewer to the west to the Mississippi River for the dumping and carrying away of their refuse. That since the beginning of the operation of [Shell] they have discharged their refuse in various ways, some of it by an open ditch running south through its property across the Alton-Edwardsville Road into South Roxana and then angling southwest across to Grassy Lake where it was discharged. They also had sewers known in this record as the Staff House sewer, the West Entrance Gate sewer, the Old Wooden sewer, the Big Four sewer and later the new sewer which they laid on the north side of the public road running from the Alton-Edwardsville road west to Hartford and thence into the Mississippi River.

* * * *

That at the beginning of its operations the defendant dug some large wells in the Northwest quarter of its land or holdings and that it used this water in their condensory boxed and other operations common to the refining process; that it dug ditches or flumes from the west part of its grounds in the neighborhood of where the most of the operation was taking place towards the east; one just south of their north property line and two others located south of this ditch and parallel or almost parallel to it some hundred and fifty or two hundred feet apart; that it kept filling in the lake on the east and on the west bank until it brought the lake into a small space and converted it into a ditch called by the defendant the main ditch running north and south, the south end emptying into Grassy Lake and on the west side of this main ditch these lateral ditches enter.

That at the beginning of the operation of refining in 1919 and for several years thereafter, the defendant was careless in the handling of its escaped oil and the heavier refuse from the refining operations, and that much of these substances found their way into Grassy Lake; that in later years the defendant built better traps in these ditches and more of them, and had, to some extent, reduced the amount of oil, in particular, that now finds its way into Grassy Lake. The amount of artificial water, however, that is pumped from the wells on the White Star property and used in the process of refining crude oil and then allowed to flow into the ditches and through the main ditch into Grassy Lake has greatly increased until now it has become a very large volume, the approximate dimension of the stream in the main ditch being about three feet wide at the bottom, five feet across at the top, ten or fifteen inches on the average depth and running at a rate of about two and a half mile an hour or slightly less than as fast as a man ordinarily walks, for twenty-four hours a day the year around.

That on account of the large amount of crude oil, acid sludge and other chemicals used in the refining of oil in the defendant's plant and in [the Shell Refinery], which have been discharged since the time of the locating of said plants in this vicinity into Grassy Lake, as refuse from these refining operations that the once luxuriant growth of vegetation existing in Grassy Lake began to wither and die...that there appeared in the lake a thick or heavy, oily substance spoken of by several witnesses as an axle grease constituency and a substance which settled to the bottom of the lake, rather than flowed on its surface, such substance covering practically all of the bottom of the lake from the White Star [refinery] south through the Big Four Switch Track and on south to beyond the south line of the [complainant's] property, also west and northwest for a quarter of a mile or more up into the arm extending in that direction.[4]

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[4] The original complaint said this was four to five inches thick on the whole lake. At 300 acres, a thickness of 5 inches equates to 41 million gallons of substance and a thickness of 4 inches equates to 33 million gallons. Even if this is only 10% of the numbers proffered, this would represent between 3 and 4 million gallons of substance sitting on the bottom of Grassy Lake.

That this destruction of vegetable growth in the lake was first noticed in the spring of 1925; that by the fall of 1928 the scope just designated had been covered; that the water animals, the birds that frequented the lake and the fish that lived therein have gradually disappeared since the refuse from these refineries has been dumped into the lake until now, few, if any, of these forms of life are found in or around the lake excepting the extreme west portion and the extreme south portion.

That prior to the discharge of such large quantities of artificial water into Grassy Lake, the lake, in extremely dry seasons, occasionally disappeared altogether and that the stage of the lake was determined primarily upon the rainfall and the temperature in the locality; that since the discharge of the water and the pollution of its waters by acid sludge and oil refuse, dry and hot summers have little, if any, effect upon the amount of land covered by the lake, particularly was that noticeable in the summer of 1930, which was an extremely hot summer and a summer wherein the rainfall was perhaps the smallest ever known in the locality of the lake; however, with this extremely small rainfall and extreme heat, that the lake stage was little, if any, below its high level. The cause being the pollution and the large amount of artificial water put in the lake by the defendant.

* * * *

That during the time that most of the oil was discharged into Grassy Lake, particularly in the years 1925 to 1928, frequent oil fires broke out and burned the oil from the land where it was deposited by the lake rising and falling and leaving the oil on the land, and on the surface of the water where large quantities of it had collected. One particular fire occurring in July of 1928 burned for about six hours. It originated on the property of the International Shoe Company where oil had been discharged from the old sewer of [Shell]. A passing train ignited it with a spark from that engine. This fire was very destructive and burned several of the tanks of the defendant..., burned down the west side of Grassy Lake to the Big Four Switch track, turning there and coming back on the east side of the lake, burning itself out some place close to the west entrance of the Shell [refinery]. This fire destroyed most of the trees and vegetation found on that part of the lake at that time and there has been none grow up to take its place since that time.

* * * *

That the defendant has allowed oil, chemicals, acid sludge and other refuse to escape into the lake and be deposited upon the land of the complainant; that the large amount of unnatural water that has been discharged since the beginning of the operation of the plant of the defendant has added a material burden to the property of the complainant and that it has increased from year to year in proportion to the refining operations of the defendant, which in 1919 averaged five hundred barrels of crude oil a day and since that time it has gradually increased until the last two years the average has been five thousand barrels of crude oil a day.

That on account of the dumping of crude oil and the refuse from the refining operations and its action upon the vegetation in Grassy Lake a very obnoxious odor has been generated and continues to fill the atmosphere around and about the lake

* * * *

That the [complainant's] property which was once used and leased as a hunting and fishing resort is now practically useless for these purposes on the account of the pollution of the water, as has been described above.

* * * *

That...White Star...is guilty of maintaining a nuisance, it having discharged oil and other refuse matter and large quantities of artificial water pumped from wells in its plant into Grassy Lake, which, after they were discharged into Grassy Lake, flowed southward in and upon the lands of the complainant herein; and that said White Star...did this without right or authority of law, not having a contract or a covenant or any obtained right from the complainant...; and that the defendant's act is in opposition and contrary to the rule or doctrine firmly established in the state of Illinois and based upon constitutional provisions that no person shall be deprived of life, liberty or property without due process of law.

* * * *

That injunction is the proper remedy in this cause since injury complained of by the complainant is a recurring injury; and to avoid the multiplicity of suits and to redress an irreparable injury, an injunction is proper, and a suit brought for the purpose is properly instituted.

That the complainants are entitled to an injunction and the relief prayed for in their amended bill of complaint.

The court further finds that the defendant is entitled to a reasonable time in which to adjust its plant and property to conform to the findings of this decree and the order of this court and that such a reasonable time would be the period of six months.

It is therefore ORDERED, ADJUDGED and DECREED that the prayer of the amended bill of complaint herein be and the same is hereby granted and that upon and after the expiration of the period of six months from this date, being the 12th day of September A. D. 1932, that the defendant be and is hereby restrained and enjoined from polluting, defiling or contaminating the waters of said Grassy Lake where they come over and upon the property of the complainants and from causing a deposit of filth and contamination on the bottom of said lake where the same is a part of the land of the complainants and from casting oil, waste, refuse, chemicals and other noxious substances upon the land of the complainants and from passing and draining into said Grassy Lake and upon the land of the complainants any water which did not so drain

thereto and therein normally in a state of nature and that from and after the expiration of said period of six months aforesaid the defendant and its agents, servants and employees and all persons claiming by, through and under it be restrained and enjoined in said matters and that violation of this order be dealt with according to law.

This decision was appealed by White Star and was upheld in *Shelby Loan and Trust Company v. White Star Refining Company*, 271 Ill.App. 266 (App. Ct. Ill. 4th Dist 1933). It appears that the primary reason for shutting down the White Star refinery was this order, which effectively required White Star to change its entire method of discharging water and waste from the refinery. **Rather than comply, White Star apparently decided to shut down the refinery.**[5] To our knowledge, this decision was never reported in the press. We believe this case is important for several reasons:

- First, it finds as a fact that **the White Star refinery, the Shell refinery and the tannery contaminated Grassy Lake with hydrocarbons and other toxic substances.**
- Second, it finds as a fact that the Shell refinery **contaminated the property just east of the tannery property.**
- Third, it establishes as a fact that **the bottom of Grassy Lake was covered with several inches of hydrocarbons.** Since Grassy Lake has virtually disappeared, it seems likely that that those hydrocarbons that did not dissipate leached into the ground.
- Fourth, it establishes as a fact the Grassy Lake was near what is now the Village of Hartford.
- Fifth, it suggests that all of the areas covered by Grassy Lake were hydraulically connected. Finally, it finds as a fact that water in the area flowed south-southwest.

<u>Two Hydrocarbon Problems</u>

As noted earlier, it appears likely that Hartford has had two hydrocarbon problems: one is methane gas and the other gasoline and other petroleum products floating on the water table. The Illinois EPA apparently was of this opinion. On April 18, 1978, the Illinois EPA sent the following correspondence to Hartford officials:

> Our preliminary findings indicate that Hartford may be dealing with two separate environmental problems.
>
> 1. A light hydrocarbon gas in the upper regions of the soil, and
>
> 2. Heavy liquid hydrocarbons on the water table.
>
> Analysis of gas samples taken by Amoco in 1970 and 1973, and results from Shell Oil from samples taken in 1978 indicate that hydrocarbons in the upper soils of Hartford are predominantly methane. Methane may be the source gas responsible for the series of fires which have plagued

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[5] We know that White Star had been acquired by Vacuum Oil Company by 1932 and that Vacuum Oil Company (or its subsidiary Lubrite Refining Company) had a refinery in East St. Louis. It also appears that White Star may have been the subject of an involuntary bankruptcy. However, we do not have sufficient information on this.

> Hartford since 1970. Methane can be generated through decomposition of organic matter commonly known as marsh gas, on the other-hand since methane is the chief component of natural gas, a natural gas pipeline may be leaking in the area. Air samples recently taken by our Agency were analyzed by a Southern Illinois University laboratory which indicated butane in the upper soil. Butane is a constituent in gasoline. The Agency is presently investigating several possible sources that may be contributing to the butane problem.
>
> The Agency has also analyzed groundwater at several sites in Hartford. Our analyses show that liquid hydrocarbons similar to fuel oil were found to be present at a sample boring site at Rand and Delmar. Samples were also taken and analyzed at a monitoring well at 105 Cherry. These showed high grade gasoline at this location. Another monitoring well at 501 Olive also shows high grade gasoline present in large quantities.

At the request of the Illinois EPA, the Illinois State Geological Survey was brought into the investigation in May 1978. Despite the known hydrocarbon plume, there was still concern that **other potential sources could have accounted for the relatively large amounts of methane observed in the soil samples.** On July 12, 1978, the Geological Survey reported its findings to the Illinois EPA. As to the methane, the Geological Survey stated:

> In summary, although the exact source of the methane in the gas sample collected at Hartford can not be proven, the carbon-14 analysis indicates that the gas does not contain any significant contribution from sanitary landfills, sewage disposal plants, or bacterial decomposition of organic material in the soil or river sediment. The CH_4/C_2H_6 ratio and the δC^{13} value of the sample make it improbable that the gas is the result of leakage of a nearby natural gas pipeline. The geology of the area also implies that the probability of the sample being glacial drift gas or coal gas is very unlikely. The chemical and isotopic data shown in the table for the sample collected at Hartford is most similar to that which has been observed for samples from wells east and southeast of Hartford that produce petroleum-related gas.

We believe that the contamination of Grassy Lake by the White Star refinery and others leached into the ground in and around Hartford and that the ensuing biodegradation of those hydrocarbons could have produced the methane that appeared in the Village beginning in 1966 and apparently contributes to the problem in Hartford today.

Tetraethyl Lead

In its 1978 investigation, the Illinois EPA obtained hydrocarbon samples from monitoring wells and compared them with samples of leaded gasoline from Old Clark, Amoco and Shell. These samples were analyzed for lead alkyl compounds and compared to standards obtained from DuPont Corporation. According to the Illinois EPA, the Hartford samples all compared well with the tetraethyl lead ("TEL") standard and none matched the tetramethyl lead standard nor the mixed alkyl lead ("TMX") standard. Furthermore, according to the Illinois EPA, the Old Clark gasoline contained TEL whereas Shell's and Amoco's gasoline contained the TMX mixture or an alkyl lead mixture very similar to the TMX mixture supplied by DuPont. The Illinois EPA cited this factor in ruling out the Shell refinery and the Amoco refinery as potential sources of the gasoline plume.

We question this conclusion for two reasons. First, it appears that the Illinois EPA only tested gasoline then refined at the refineries without inquiring as to prior products and refining processes.

Second, we believe that Shell and Amoco both used TEL in their refining processes. In or around 1979, the resident chemist at the Clark Refinery was told by employees at the Shell and Amoco refineries that those refineries did use TEL. In addition, *The Wonder at Wood River, 75 Years of Progress*, written by John G. Schroeder of Corp.Write Ltd. in St. Louis[6] and published by Shell in 1993, states that Shell used TEL as an additive for 31 years before the company began using TCP, which Shell had developed in the 1950s. Further, *Fundamentals of Petroleum Refining*, published by Shell in 1961 and used in the Shell refinery, stated: "Addition to gasoline of tetraethyl lead markedly increases the antiknock value. This compound is added in proportions up to a maximum of three ml. per gallon of gasoline and has proved to be an important refinery tool." This suggests that, at least through 1961, the Shell refinery used TEL in its refining process.

Finally, an April 6, 1978 chromatography report indicated that two of Shell's gasolines tested positive for TEL. They show results for two Shell products as well as the product in the sample. While the recovery well sample registered TEL of slightly less than 5, the two Shell samples showed TEL of 2.5. We believe this contradicts the Illinois EPA's statements in the 1990 Illinois EPA report that the Shell refinery did not use TEL in its products.

Groundwater Flow

Another influencing factor (and possibly the major contributing factor) to the Illinois EPA's conclusion that the Clark refinery was the source of the gasoline plume was its determination that the groundwater beneath Hartford flowed to the northeast and that Amoco's and Shell's refineries and pipelines were to the northeast of Hartford and only the Clark refinery's pipelines were to the south of the plume. We believe this conclusion may be incorrect.

First, gasoline odor complaints came from areas of Hartford south of the Clark refinery's pipelines. If the groundwater flowed northeast, as alleged, then there should not have been any problems south of those pipelines. Second, these conclusions apparently only applied to the deep groundwater and not to the shallow lenses found in the vicinity of Rand Avenue. Data developed by the Illinois EPA indicates that these shallow lenses flowed south and southwest, contradicting the Illinois EPA's assertions. We believe this means that gasoline and other petroleum products could have moved from the Amoco and/or Shell facilities to Hartford.

Other Potential Sources of the Gasoline Plume

Based on our investigation, we believe that the Amoco, Shell and/or White Star refineries contributed to the gasoline plume before the Clark refinery was constructed and that there was hydrocarbon contamination of Hartford after the construction of the Clark refinery in 1940 from sources in addition to the Clark refinery.

On July 7, 1924, the a *Telegraph* article stated: "*A big fire of oil at the [Shell refinery] today attracted considerable attention. It was said that the fire was started intentionally, the oil burned being some refuse oil which had been pumped into an old pond and then set on fire to get rd of it. The fire was*

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[6] There is a Shell refinery museum located on the Shell refinery property (one block north of the refinery's main gate off of Highway 111). In that museum, there is a copy of *The Wonder at Wood River*, which recounts the history of the Shell refinery. It also is the source for some of the information contained herein. Corp.Write Ltd. is still in business. We spoke to Mr. Schroeder, who confirmed he still had copies of the book but refused to provide us with a copy without Shell's consent.

burning all morning." In a July 21, 1924 article titled "Spectacular Night Fire at Roxana Plant," the *Telegraph* reported that a pipeline broke at the Shell refinery, and a resulting fire shot flames almost 100 feet into the air. These incidents could have resulted in leaching of petroleum products into the ground near Hartford.

On or around April 25, 1927, the Amoco refinery was closed due to flood waters inundating the refinery grounds. On August 15, 1927, the *Telegraph* reported that a storage tank at the Shell refinery had been struck by lightning and caught fire. According to the paper, the tank disintegrated due to the intense heat.

On May 4, 1938, there was "a three-alarm blaze in the Compounding House" – a fire the *Shell News* called "one of the most serious" ever experienced at the plant. Fire departments from six neighboring communities joined a fire-fighting crew of 50 Shell employees to battle the blaze. Another 200 employees pitched in wherever they could, the magazine said, 'using picks and shovels to erect emergency fire walls, pumping escaped oil to prevent further disaster, eliminating electrical hazards, repairing pipeline and hose leaks and patrolling along the refinery fences.'" (*The Wonder at Wood River, supra*, at page 32.) This establishes evidence of hydrocarbon releases from the Shell refinery as early as 1938.

In 1947 the Mississippi River flooded and on June 30 of that year, the levee broke. By July 5, 1947, both of Shell's crude oil pipelines had broken. (*The Wonder at Wood River, supra.*) The crude oil had to go somewhere. Although some of it would have been washed down river by the flood waters, in all likelihood, some made its way under Hartford.

On September 17, 1951, it was reported that the Dubbs 17 cracking unit at the Shell refinery exploded into flames.

In July 2003, we interviewed a former Shell employee who told us about an episode involving Shell and the gasoline plume. He worked for Shell for approximately one year as a barge shipping clerk beginning in 1959. Prior to his becoming the barge shipping clerk, Shell became aware of discrepancies in the amount of product its meters showed loaded onto barges from the Shell refinery and the amount in those barges at their destination. It was suspected that the product was being stolen in transit.

Two Shell vice presidents investigated the discrepancies. They interviewed our source shortly after he became the barge shipping clerk. The investigation lasted about six months, included several private investigators and resulted in a "White Paper." The two vice presidents were unable to identify the reason for the discrepancies. As a result of his position as barge shipping clerk, our source had personal knowledge that Shell was losing substantial amounts of product per shipment during his entire tenure in that employment.

Sometime after the White Paper was prepared, our source was told that two Shell employees were driving to Shell's barge loading deck and saw a huge puddle of oil on the ground approximately 300 feet south of Shell's dock on the Mississippi River. They originally thought it was from the Clark refinery and contacted Sinclair Refining Company (the owner of the Clark refinery at the time). Sinclair tested its lines and determined that they were not leaking. Upon further investigation by Shell employees, it was determined that the leak came from Shell's pipeline to the dock. That pipeline had a "T" intersection at its terminus. Product flowing through the pipeline into a barge was metered prior to the T intersection. One branch of the T went to barges being loaded while the other was closed off by a blind flange. After the puddle of oil was noticed, the T was unearthed and it was found that the flange had become dislodged, which apparently had permitted large amounts of product to enter the ground. According to our source, Shell determined this to be the cause of the shortage.

On page 56 of *The Wonder at Wood River*, it states that in 1959, "Shell excavated two enormous storage caverns 450 feet below the refinery's east property. There, up to 500,000 barrels of butane could be stored until winter, when it would be needed for blending into cold-weather formulas of gasoline. The facilities also provided off-season storage for another 200,000 barrels of propane, which later could be sold to distributors of bottled gas during the heating season." There were pictures of the caverns in the book. This equates to 21 million gallons of butane and 8.2 million gallons of propane that Shell stored below ground beginning in 1959. We do not know when this practice ended or what happened to the caverns. This raises the question as to whether these caverns were the initial source, or an initial source, of the butane and propane originally detected in the late 1960s. We have been told that similar caverns were located at the Amoco refinery, although we have no written confirmation of that.

On February 8, 1966, according to the *Telegraph*, there was a blast at the Shell refinery at cooling tower #2.

According to a March 2, 1970 article in the *Telegraph* titled "Wood River Refinery Raises Waste Dikes," the area around Hartford was flooded that month and oils from Amoco's waste ponds were washed away. As a result, the Illinois EPA required Amoco to raise the height of the earthen walls surrounding these ponds. The question is whether any of the wastes ended up under Hartford.

On April 23, 1970, an explosion at the home of Mrs. William Skaggs at 113 East Cherry Street knocked blocks from the foundation and blew out a picture window. The home's furnace was ablaze and the reporting police officer for the Village ("R/O") stated that John Snyder from the State Fire Marshal's office was called in.

> He took several explosi-meter readings and found 100% combustible gas in prob (sic) holes in back of the house. They also probed the water meter tile and obtained a reading of gasoline. They had dug a hole 6 foot deep in the alley and approximately 15 feet long. It was just east of the house with the back hole. Then they drilled another 6 feet down. They had taken more explosi-meter readings at a 12 foot depth level. The readings indicated 60% gas, <u>but it was not gasoline</u>. (emphasis added)

On April 28, 1970, just five days later, Illinois Power Company repaired a leak in their natural gas line located across the tracks on Cherry Street. We question whether this natural gas leak could have been the source of the explosion.

On December 24, 1973, the *Telegraph* reported that the Amoco Refinery spilled 900 barrels (37,800 gallons) of unleaded gas from a pipe that had been cracked by a snowplow. According to Amoco, the gas was contained within a dike. On December 27, 1973, the *Telegraph* reported a fire from a leaking pipe at the Shell Refinery. On December 28, 1973, the *Telegraph* reported on an Amoco tanker truck that had been hit and spilled 3,300 gallons of gasoline at Evans and Old St. Louis Road. All of these were potential additional influxes of petroleum products into the Hartford area.

R/Os made the following report on October 20, 1981. "*There was a line broken [south side of the end of West Rand Avenue near the Shell docks] - spraying liquid into the air. I notified the dispatchers and requested that Shell be notified. I stayed until a Shell truck arrived.*"

On November 5, 1982, an R/O made the following report: "*Jack Marshall advised me of diesel fuel coming out of the ground [700 block of North Olive]. 85 and myself blocked the roadway, till Jack put up barricades at Birch and Olive and Rand and Olive. We then left. A short time later, Chief Wadeking had the fire truck go over and wash out the drain.*" According to the R/O, the Sinclair/ARCO pipeline had leaked. Several hours later, diesel fuel was discovered in Hartford sewers approximately seven blocks south of this location.

On June 26, 1984, "a 12-inch process line failed [at the Shell refinery] and the **leaking product ignited.**" (*The Wonder at Wood River, supra*, at page 89).

In January 1985, there was a fire in the de-waxing and de-asphalting unit at the Shell refinery. "The D&D blaze was caused when water froze inside an inactive section of pipe--eventually cracking the pipe, and allowing propane to escape." (*The Wonder at Wood River, supra*, at page 89).

On January 31, 1986, the *Telegraph* reported that "25 Roxana residents were evacuated from their homes Thursday after about **8,400 gallons of potentially hazardous liquid benzene spilled out of a ruptured pipe leading from the Shell [refinery].**" The spill occurred in one of the above-ground lines on Rand just west of Highway 111. According to the *Telegraph*, Shell pumped benzene from the Shell refinery to its loading docks on the Mississippi River for shipment to other companies.

On February 22, 1986, the *Telegraph* reported that another ten barrels of benzene leaked from the Shell pipeline at Rand and Highway 111.

A March 10, 1986 article in the *Telegraph* reported that a **fire had destroyed a 16,000 barrel hydrocarbon storage tank** at the Shell refinery.

On or around April 13, 1987, approximately **5,000 gallons of sulfuric acid leaked from a pipeline on the Shell refinery** into adjacent property about 200 feet from Route 111. A spokesman for Shell said "the leak may have been caused by a corroded pipe eaten through by the acid."

On December 28, 1987, the *Telegraph* ran an article titled "Shell gasoline leak found to be harmless." The leak occurred at the west end of Rand Avenue in Hartford.

On July 20, 1989, according to the *Telegraph*, **a tractor-trailer leaked about 1,800 gallons of diesel fuel on Illinois Route 3** between Rand Avenue and Hawthorne. The driver of the rig had just picked up the load from Piasa Motor Fuels Co. when the leak occurred.

On December 16, 1989, a Shell pipeline parallel to Rand Avenue ruptured and spilled approximately **294,000 gallons of gasoline.** Only 12,600 gallons of liquid (ice, snow and gasoline) were recovered. The *Telegraph*, in its December 18, 1989 issue, carried the following article titled "Shell cleaning up gas, seeking hole":

> *Shell Oil Co. will dig up an 8-inch pipe to find a hole that let unleaded gasoline spew out of the ground Saturday, forcing evacuation of 11 residents.*
>
> *"We're cleaning up the gasoline and then we'll dig down (4 feet) to try and find the leak," Shell spokesman Tony Canino said today.*
>
> *A Shell crew was using a bulldozer near Rand Avenue today to scoop up the gasoline-soaked soil and haul it away.*
>
> *"The soil was contaminated by the spill," Hartford Police Chief Larry Parks said. "There is no odor and no danger to residents."*
>
> *Residents of Fred's Mobile Home park on Old St. Louis Road returned to their homes Sunday, Canino said.*
>
> *They were evacuated by Hartford police and firemen. Shell arranged for the people to spend Saturday night at Holiday Inn in Alton.*

Twenty-five workers in Shell's emergency response team went into action at 7 a.m. Saturday when the pipe broke and gasoline poured along Rand Avenue.

Unleaded gasoline is pumped two miles from the plant in Roxana to barges on the Mississippi River near Hartford.

The spill was the fifth leak at Shell since Dec. 4.

Leaks of hydrogen sulfide, benzene and sulfur dioxide occurred at the plant in the last two weeks.

The Illinois Environmental Protection Agency is investigating the leaks and will send results of the inspections to Attorney General Neil Hartigan for possible action.

An internal Illinois EPA memorandum dated December 20, 1989 stated: "Shell was reluctant to provide details on the amount of gasoline released until today. Tom Powell (IEPA-ERU Collinsville Office) was contacted by Shell Oil Co. this morning. Shell reported that 294,000 gallons of gasoline were released. Only 12,600 gallons of liquid (ice, snow and gasoline) have been recovered."

On December 21, 1989, the *St. Louis Post-Dispatch* reported that: "*[t]he long-term worry for the town's residents is whether their water supply will be affected by the spill, which largely disappeared into the ground. The town's two wells are less than a mile from the spill site, and no one knows yet whether the gasoline will head that way.*" The newspaper added: "*The almost 300,000 gallons of unleaded gasoline that spilled Saturday at Shell Oil Co. may take months to clean up, company spokesman Tony Canino said Wednesday. Canino said there is no danger to drinking water or to water that drains into rivers and streams. Canino said a broken weld in an underground pipe is suspected in the accident. He said the company is not certain how long gasoline was leaking before it was detected.*"

On January 5, 1990, in an article titled "Spilled gas in groundwater," the *Telegraph* stated: "*Thousands of gallons of unleaded gasoline that spilled from a broken Shell pipeline have reached the ground water that flows toward the Mississippi River, according to an Illinois Environmental Protection Agency official. 'There is 3 to 4 feet of gasoline floating in the water under the ground near the spill,' James O'Brien said Thursday.*"

On February 1, 1990, the *Telegraph* reported that Shell was trying to stop a pipeline leak that had dumped more than 800 gallons of crude oil into a drainage ditch along Highway 111.

On February 20, 1990, the *Telegraph* reported that Shell was cleaning up an estimated 42,000 gallons of crude oil that spilled from an underground pipe at the Shell refinery. On February 21, 1990, the *Telegraph* reported that the spill was expected to exceed the initial 42,000-gallon estimate. According to the article, "Shell workers were leveling oil in three storage tanks Monday when a weld broke in a 20-inch underground pipe." On February 23, 1990, the *Telegraph* reported that "[i]t could take weeks or months to clean up the remaining crude oil from a leak of 672,000 gallons at" the Shell Refinery. The Illinois EPA stated that "the amount of spilled oil [Shell] estimated Thursday was a shock when compared to an original figure of 42,000."

On July 17, 1990, the *Telegraph* reported that a gasoline leak from a Shell overhead pipeline shut down Rand Avenue. About 80 gallons shot six feet in the air 150 yards from Rand Avenue and Olive Street when a leak developed in the flange of an 8 inch pipe.

In August 1990, the Sinclair/ARCO pipeline was tested and determined to have a leak. In addition, it was supposed to be full but, when tested, 250 barrels (10,500 gallons) of gasoline were missing. On September 7, 1990, ARCO Pipe Line Company informed the State Attorney General's office that:

> During the time [ARCO Pipe Line] performed services on this pipeline for Sinclair, there have been three incidents in which petroleum products escaped. On June 7, 1982, approximately nine barrels of #2 fuel oil were lost due to a corrosion pit. On July 12, 1981, approximately 24 barrels of gasoline were lost due to a corrosion leak. On January 8, 1981, approximately five barrels of gasoline escaped due to a corrosion pit. ...Permanent repairs were made following each incident.

On September 21, 1990, the *Telegraph* reported that over 42,000 gallons of crude oil leaked from an underground pipeline at the Shell refinery and bubbled to the surface.

On January 10, 1991, the *Telegraph* ran an article titled "Amoco will dig deep to clean tainted water," which reported that Amoco was drilling 14 wells to recover contaminated groundwater beneath the Amoco refinery. These were in addition to the four existing wells.

On May 22, 1991, an article in the *Telegraph* stated that Shell agreed to pay a $550,000 fine to settle a lawsuit filed earlier by the Illinois EPA against the company. "In addition to the fine, Shell has agreed to clean up about 282,000 gallons of gasoline that leaked into the ground in Hartford in December 1989," the article stated.

On November 21, 1991, in an article titled "Ooze is a mystery to Shell", the *Telegraph* reported that hydrocarbons were found leaking into a ditch along side Highway 111 south of Rand:

> *Authorities may need more lab tests and detective work to track down the source of a mysterious liquid oozing from the ground along Illinois Route 111.*
>
> * * * *
>
> *Shell chemists identified the leak early today as a heavy hydrocarbon but could not name a specific product or manufacturer.*
>
> *"They believe it's material called fractionation bottoms, possibly from a cat cracker unit. The mystery is how it would have been there,' Forbes [with the Illinois EPA] said.*
>
> *The company is looking for old records from a White Star refinery that was once there and left a number of abandoned lines, he said.*
>
> *"It's not crude and it's not gasoline. It's something in between," Forbes said.*
>
> * * * *
>
> *Shell spokesman Tony Canino said the leak may be something processed or something very old, based on preliminary analysis. "It could be fuel oil, but probably not."*

On November 22, 1991, the *Telegraph* reported that authorities were still trying to identify the mystery ooze. "It's a catalytic cracker feed stock that has gone through some crude oil processes, but we still have no idea where it came from," Tom Powell of the Illinois EPA said. On December 26, 1991, the *Telegraph* reported, "Shell Oil still can't determine source of mysterious ooze."

On March 30, 1993, the *Telegraph* reported that a Shell crew was repairing a pipe that leaked 1,680 gallons of furnace oil into a ditch on the western edge of the Shell refinery.

We do not believe that each of these incidents resulted in an influx of product into the gasoline plume beneath Hartford. Nor do we believe we have identified all releases of petroleum and petroleum products in and around Hartford. However, the above instances do demonstrate that the Hartford area has suffered numerous releases since the 1920s. There is the likelihood that one or more of these leached into Hartford's groundwater.

V.B. Invoice 14435, January 5, 1983. Costs incurred by ARCO Pipeline Company in connection with operation of [Hartford 10-inch pipeline]. Notation indicates invoice for repair to line leak which occurred 11/5/82 outside refinery property.)

ARCO Pipe Line Company

ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

Invoice A 218-83

Number	14A25	Please show this number and date on remittance and correspondence. Thank you!
Date	January 5, 1983	

We CHARGE your account

Sinclair Marketing, Inc.
ATTN: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

Costs incurred by ARCO Pipe Line Company in connection with the operation of a pipeline between Clark's Wood River Refinery and APL's Wood River Pipeline Station, per agreement dated December 31, 1979. Our U.D. Job No. 215.

Detail Attached $2,681.44

3750-8200-19
1-17-83

Repair to line leak which occurred 11-5-82 outside refinery property.

KG

ARPL-90-D

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 0215

DESCRIPTION OF JOB
DRER OF P/L - CLARK'S W.R. REF TO APL'S STA

LABOR					
DELIVERYMAN		$	507.63		
PIPELINER		$	443.65		
TRUCK DRIVER		$	461.26		
				$	1,412.54
EMPLOYEE BENEFITS--% OF LABOR-					
SICK BENEFITS	2.26%	$	31.92		
VACATION PAY	6.29%	$	88.85		
HOLIDAY PAY	3.58%	$	50.57		
SUBTOTAL		$	171.34		
TOTAL DIRECT LABOR				$	1,583.88
OTHER LABOR COSTS--% OF DIRECT LABOR-					
EMPLOYEE BENEFITS-COMPANY COST OF PREMIUMS					
GROUP INSURANCE	1.32%	$	20.91		
BENEFIT PLAN -HOSP.-	5.17%	$	81.89		
RETIREMENT PLAN	10.66%	$	168.84		
SAVINGS PLAN	3.07%	$	48.63		
SUBTOTAL		$	320.27		
SOCIAL SECURITY TAXES					
F.I.C.	6.41%	$	101.53		
F.U.I.	0.30%	$	4.75		
S.U.I.	0.54%	$	8.55		
SUBTOTAL		$	114.83		
WORKMENS COMP. INS.	1.80%	$	28.51		
GENERAL LIAB. INS.	3.88%	$	61.45		
TOTAL OTHER LABOR COSTS				$	525.06
TRAVEL EXPENSE					
PIPELINER		$	80.00		
TRUCK DRIVER		$	70.00		
				$	150.00
RIGHT OF WAY COSTS					
				$	0.00
PROPERTY DAMAGE					
				$	0.00
PRODUCTS LOST					
				$	0.00
MISCELLANEOUS					
				$	0.00
CONTRACT PAYMENTS					
				$	0.00
VEHICLES AND O.W.E.					
1982 CHEV. 2-1/2 T TRUCK		$	271.00		
				$	271.00
MATERIAL					
				$	0.00
SALVAGE MATERIAL					
				$	0.00
OVERHEAD AND SUPERVISION					
% ACCUMULATED TOTAL			5.00%	$	126.50
TAX MAKE UP					

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 0215

		$ 0.00
SERVICE CHARGE		$ 25.00
TOTAL PROJECT COST		$ 2,681.44
DISTRIBUTION OF PROJECT COST		
YOUR SHARE OF COSTS	100.00%	$ 2,681.44
ADVANCE PAYMENTS AND PARTIAL CLEARANCE		

V.C. Invoice 14625, April 20, 1983. Contractor invoices for permanent repairs of November, 1982 leak. (Attached memo estimates that November 5, 1982 leak lost 157 barrels and was due to failed temporary patch by Clark.)

LOCATION [illegible]

No. [illegible]

SUBJECT [illegible]

[illegible] 29 [illegible]

[illegible] check list put on and [illegible] notified [illegible]

[illegible] report to national response [illegible]

[illegible] Friday on Nov 5th

[illegible] would patch [illegible]

[illegible]

SIGNED BY [illegible]

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

RECEIVED 5-2-83 K.L.G.

Invoice

Number	14625	Please show this number and date on remittance and correspondence. Thank you!
Date	~~April 20, 1983~~	

We CHARGE your account

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

Costs incurred by ARCO Pipe Line Company in connection with the operation of a pipeline between Clark's Wood River Refinery and APL's Wood River Pipeline Station, per agreement dated December 31, 1979. Our U.D. Job #215.

Detail Attached $4,780.59

3750-8200-19
5-2-83
K. L. Grove

ARPL-90-D

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 215

				Amount	Total
				$	$
1.	Labor				
	Pipeliner			374.40	
	Truck Driver			194.24	
	Welder			211.36	
	Maintenance Foreman			278.36	1,058.36
2.	Employee Benefits - Paid to Employees				
	Sick Benefits	2.26% of Labor	11	23.92	
	Vacation Pay	6.29% of Labor	12	66.57	
	Holiday Pay (Unworked)	3.58% of Labor	12	37.89	128.38
3.	Total Direct Labor				1,186.74
4.	Other - Labor Costs				
	Employee Benefits - Company Cost of Premiums				
	Group Insurance	1.32% of Item 370	15.66		
	Benefit Plan	5.17% of Item 370	61.35		
	Retirement Plan	10.66% of Item 370	126.51		
	Savings Plan	3.07% of Item 370	36.43	239.95	
	Social Security Taxes				
	F.I.C.	6.41% of Item 371	76.07		
	F.U.I.	.30% of Item 371	3.56		
	S.U.I.	.54% of Item 371	6.41	86.04	
	Workmen's Comp. Ins.	1.80% of Item 372		21.36	
	General Liability Ins.	3.88% of Item 361		46.05	
5.	Total Other Labor Costs				393.40
6.	Travel Expense				
	Truck Driver			70.00	
	Pipeliner - 2			140.00	
	Welder			70.00	
	Deliveryman			26.50	
	Maintenance Foreman			86.35	392.85
7.	Vehicle Expense				
	1979 Chev. Suburban			85.31	
	1981 1-Ton Welding Truck			121.18	
	1982 2.5 Ton Chevrolet			207.35	413.84
8.	Material			20.30	20.30
9.	Contract Payments			2,122.00	2,122.00
10.	Subtotal				4,529.13
11.	Overhead & Supervision				
	5% of Accumulated Total			226.46	226.46
12.	Service Charge			25.00	25.00
13.	Total				$4,780.59

Georgewitz Contracting Company
[redacted] 2813 WEST DELMAR
GODFREY, ILL. 62035

466-2526 [redacted]

TO ARCO PIPE LINE

HARTFORD, ILLINOIS 62048

INVOICE DATE	SALESMAN
DECEMBER 10, 1982	
SHIP TO	
SAME	

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
	12/8/82	OUR EQUIP.	DELIVERED	

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
8	HOURS BACKHOE & OPERATOR	45.00	$ 360.00

SC 5101 215 01
Permanent Rec. 01
CLARK IC" Acct. Clerk 11-15-82
Per W.O. CM2-1
Rm
12-10-82
Payables and Distribution

RECEIVED

ORIGINAL

Thank You

FORM 105-3 Available from NEBS Inc., Groton, Mass 01450

12-1.6

INVOICE

TRIAD INDUSTRIAL CLEANING COMPANY

Customer	Arco Pipeline Co.	Billing Date 12-1-82	Billing Due 1-1-83
P.O. No.		Bid Date	Start Date
F.O.B. No.	delivered	Cal. Days	Work Days
Job Sup.	R. Jones	Total Hours	
Contacted By	Jerry Witt		

Pipeline transfer spill

JOB ORDER
or
QUOTATION

RECEIVED

Payables and Distribution

Location Hartford Illinois

TOTAL CHARGE BREAKDOWN:

November 5, 1982 5:30pm - 11:30p.m.
Vacuum Truck and operator @ $57.00 per hr. x 6hrs. = $342.00
1 extra man @ $25.00 per hr. x 6hrs. = $150.00

November 7, 1982 11:00a.m. - 2:00p.m.
Vacuum Truck and operator @ $57.00 per hr. x 3hrs. = $171.00
1 extra man @ $25.00 per hr. x 3 hrs. = $75.00

Or Sign this
Pick up product
"Make it clear 16"

VERIFYING 2

TOTAL AMOUNT DUE $738.00
15 DAYS FROM BILLING DATE

PLEASE REMIT ALL PAYMENTS TO: RICK L. JONES
777 East Rosedale Ave.
East Alton, Ill. 62024

Georgewitz Contracting Company
[redacted] 2813 WEST DELMAR
GODFREY, ILL. 62035

466-2526 [redacted]

TO ARCO PIPE LINE CO.

HARTFORD, ILLINOIS 62048

F1-28

INVOICE DATE	SALESMAN
NOVEMBER 18, 1982	

SHIP TO
SAME

RECEIVED

Payables and Distribution

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
—	BELOW	OUR EQUIP.	DELIVERED	

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
11/5/82	4 TON SAND	3.50	14.00
	6½ HOURS TRUCK & DRIVER	45.00	292.50
	6½ HOURS DRIVER OVERTIME WORK PERFORMED AFTER 5PM	11.00	71.50
11/6/82	8½ HOURS BACKHOE & OPERATOR 750 FORD	65.00	552.50
	8½ HOURS OPERATOR OVERTIME WORK PERFORMED ON SATURDAY	11.00	93.50
			$ 1,024.00
	50 SIC 1 215 01 73		
	Reps Pic Lenic		
	on Clark 10" Pipe Wa		
	CR2-3		
	Row 4		
	12-16-31		
	Jane E Nuentes		

VERIFYING 2

ORIGINAL

Thank You

STATEMENT COPY

KENNETH E. WARREN | JANICE A. MILLER | RON E. MILLER

Warren Lumber Company

DEALERS IN

Building Materials, Paints, Varnishes, Glass, Hardware

SPECIAL PLAN SERVICE
602 East Benton

EXCLUSIVELY HOME OWNED
Phone 542-0640

Carrollton, Mo.

Date 12/06 1982

Sold to ARCO PIPELINE

Address

Ordered by

Location of Job

Order No.

CASH

PIECES	SIZE	L'GTH	DESCRIPTION	FEET	TOTAL FEET	PRICE	AMOUNT	
10	2½	x6½	POST			1.95	19	50
								80
							20	30

David L Stigall

TERMS: Accounts are due and payable 10th of month following date of purchase. If different terms are desired, please make arrangements with our office before delivery is made.

Total Sale

Sales Tax

TOTAL

HOUSEWORTH PRINTING CO. - CARROLLTON, MO 64633

V.D. Transmittal letter and Invoice, July 3, 1985. JR Sebastian, ARCO Pipe Line to Sinclair Marketing, attn. K. Grove. Costs incurred in connection with operation of pipe line between Clark refinery and APL Wood River Station. (For work rendered during May, 1985, apparently including contract services to excavate and repair leak resulting in 1990 discrepancy.)

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300
John R. Sebastian, Manager
Land & Right Of Way Department

July 3, 1985

Mr. Ken Grove
Sinclair Marketing, Inc.
P. O. Box 6247
Kansas City, KS 66100

Dear Mr. Grove:

Re: Agreement dated December 31, 1979,
Our U. D. Job No. 68.

Under Agreement dated December 31, 1979, ARCO Pipe Line Company has performed work for your company in connection with the operation of a pipe line between Clark's Wood River Refinery and our Wood River Refinery.

Therefore, enclosed please find five copies of our Invoice No. W-2328, in the amount of $15,239.47, covering work rendered for the month of May 1985. After approval please place this invoice in line for payment and forward a check, in the above amount, to ARCO Pipe Line Company, ARCO Building, Independence, KS 67301, Attn: Ms. Carol Staton.

Yours truly,

John R. Sebastian
lr

JOHN R. SEBASTIAN
by Louise Russell

lr
Enc.

cc: Mr. R. J. Osborn
Mr. F. L. Neeley, Attn: N. L. Coder
Mr. R. K. Oberdick

Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

Invoice

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

Number W-2328

Date July 2, 1985

Please show this number and date on remittance and correspondence Thank you!

We CHARGE your account

For costs incurred by ARCO Pipe Line Company for Sinclair Marketing, Inc., for work rendered during the month of May, 1985, in connection with the operation of a pipeline between Clark's Wood River Refinery and ARCO Pipe Line Company's Wood River Pipeline Station, per agreement dated December 31, 1979. Our Unadjusted Debit Job No. 68.

$15,239.47

3750-8200-19

APPROVED FOR PAYMENT
KENTON L. GROVE
By _____
7-11-85

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

			Amount	Total
1.	Labor			
	Maintenance Foreman, 40 hrs.		$ 810.38	$
	Deliveryman, 53.3 hrs.		612.03	
	Pipeliner, 76.7 hrs.		1,016.11	
	Truck Driver, 152.7 hrs.		2,175.96	4,614.48
2.	Employee Benefits - Paid To Employees			
	Sick Benefits - 2.25% of Labor	103.83		
	Vacation Benefits - 6.28% of Labor	289.79		
	Holiday Pay (Unworked) - 3.42% of Labor	157.81	551.43	
3.	Total Direct Labor			5,165.91
4.	Other Labor Costs			
	Employee Benefits - Company Cost of Premiums			
	Group Insurance - 1.04% of Item 3	53.72		
	Benefit Plan - 5.76% of Item 3	297.56		
	Retirement Plan - 6.12% of Item 3	316.15		
	Savings Plan - 4.05% of Item 3	209.22	876.65	
	Social Security Taxes			
	F.I.C. - 6.74% of Item 3	348.18		
	F.U.I. - .16% of Item 3	8.27		
	S.U.I. - .62% of Item 3	32.03	388.48	
	Workmen's Comp. Ins. - 2.17% of Item 3		112.10	
	General Liability Ins. - 4.67% of Item 3		241.25	
5.	Total Other Labor Costs			1,618.48
6.	Overhead, Supervision & Other Indirect Costs			
	124.56% of Item 3			6,434.66
7.	Material			
	Fittings (2" and over)		18.91	
	Miscellaneous: Gasket, Locknut, Hoses, Ferrules, etc.		44.48	63.39
8.	Contract Payments/Outside Services			
	George Witz Contracting Co. (Dig out leak)		527.00	
	Triad Industries, Inc. (Vacuum Truck)		111.72	638.72
9.	Travel Expense			
	Maintenance Foreman		256.15	
	Pipeliner		234.50	
	Truck Driver		512.44	1,003.09

STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68
PAGE 2

	Amount	Total
10. Company-Owned Vehicles		
H.E. 4856, 1981 Chev. 1-T Welding Truck, 618 mi.	165.87	
H.E. 4953, 1983 Chev. Surburban 1/2 T., 660 mi.	149.35	315.22
11. Total		$15,239.47

V.E. Invoice W-2379, January 22, 1986. (Notation indicates that line was pressure tested during October and November, 1985, and no leak was found.)

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

Invoice

Number	Please show this number and date on remittance and correspondence. Thank you!
W-2379	
Date: January 22, 1986	

We CHARGE your account

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

For costs incurred by ARCO Pipe Line Company for Sinclair Marketing, Inc. for work rendered during the month of October and November, 1985, in connection with the operation of a pipeline between Clark's Wood River Pipeline Station, per agreement dated December 31, 1979.
Our Unadjusted Debit Job No. 68. $1,980.62

Conversation with Kevin Oberdick (ARCO Carrollton Dist. Mgr. 2-24-86

Charges cover the pressure testing of line checking for suspected leak. No leak found.
K. L. Grove.

APPROVED FOR PAYMENT
KENTON L. GROVE
By K. L. Grove.
2-24-86

3750-8200-19

Terms: Net 30

ARPL-90-D

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

			Amount	Total
1.	Labor			
	Corrosion Engineer 16.0 hrs.		$291.34	
	Maintenance Foreman 16.0 hrs.		303.09	
			594.43	
2.	Employee Benefits - Paid To Employees			
	Sick Benefits - 2.25% of Labor	$13.37		
	Vacation Pay - 6.28% of Labor	37.33		
	Holiday Pay (Unworked) - 3.42% of Labor	20.33	71.03	
3.	Total Direct Labor			$665.46
4.	Other Labor Costs			
	Employee Benefits - Company Cost of Premiums			
	Group Insurance - 1.04% of Item 3	6.92		
	Benefit Plan - 5.76% of Item 3	38.33		
	Retirement Plan - 6.12% of Item 3	40.73		
	Savings Plan - 4.05% of Item 3	26.95	112.93	
	Social Security Taxes			
	F.I.C. - 6.74% of Item 3	44.85		
	F.U.I. - .16% of Item 3	1.06		
	S.U.I. - .62% of Item 3	4.13	50.04	
	Workmen's Comp. Ins. - 2.17% of Item 3		14.44	
	General Liability Ins. - 4.67% of Item 3		31.08	
5.	Total Other Labor Costs			208.49
6.	Overhead, Supervision & Other Indirect Costs			
	124.56% of Total 3			828.90
7.	Travel Expense			
	Engineer, Corrosion			149.18
8.	Miscellaneous			
	Post Hole Digger - Star Drill			27.61

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

		Amount	Total
9.	Company-Owned Vehicles		
	HE 4859, 1982 Ford Station Wagon		100.98
10.	Total		$1,980.62

V.F. Correspondence from Ivan Huntoon, Pipeline Safety, Department of Transportation to Tom Powell, IEPA. Pressure test of Sinclair Pipeline from Clark Refinery to ARCO pump station, Hartford, Ill.

U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Central Region Pipeline Safety

911 Walnut Street
Kansas City, Missouri 64106

September 7, 1990

Mr. Tom Powell
Emergency Response Specialist
Illinois Environmental Protection Agency
2009 Mall Street
Collinsville, Illinois 62234

Dear Mr. Powell:

This letter is to confirm the phone conversation between our office's on September 5, 1990, concerning the recent pressure test of the Sinclair pipeline from the Clark Refinery to the Arco Pumping Station in Hartford, Illinois.

Rolland Miller from the Office of Pipeline Safety (OPS), Central Region, Kansas City, Missouri, observed partial drainup and testing of the line on August 30-31, 1990. The following Arco and Sinclair personnel were present for portions of the drainup and tests:

Name:	Company:	Base:
Jim Loving	Sinclair	Salt Lake City, Utah
Ken Grove	Sinclair	Kansas City, Missouri
Dennis Dooley	Arco	Carrollton, Missouri

Sinclair calculated the line fill to be approximately 600 barrels. Approximately 350 barrels of gasoline was recovered from the line by use of a vacuum truck and the evacuation of the line by use of a polypig which was pushed through the line by nitrogen gas. It is possible that some of the unaccounted for gasoline seeped past the polypig when the drainup operation was interrupted to refill the nitrogen truck.

After drainup the line was pressurized to approximately 85 psig with nitrogen gas and put on test at 9:45 pm on 8/30/90. At 10:20 pm, the pressure had dropped to 70 psig. At 1:00 am on 8/31/90, the pressure on the line had dropped to zero. At 9:00 am on 8/31/90, the line was repressured with the remaining nitrogen to 30 psig. The pressure immediately began to drop off on the pressure recording chart at about the same rate as in the previous test. These tests indicate that there is a leak sorewhere in the line. During the tests the above ground piping was examined for leakage and no leaks were discovered during this examination.

The Sinclair personnel discussed their next course of action and did not decide on anything specific. They are considering filling and pressurizing the line with water to locate the area of leakage. Because of the upcoming long Labor Day weekend, further testing was not feasible. When Mr. Miller left the site nothing definite had been decided. Mr. Loving will call OPS when a decision has been made and OPS will keep your office informed.

Sincerely,

Ivan A. Huntoon

Ivan A. Huntoon
Chief, Central Region
Office of Pipeline Safety

V.G. Correspondence, September 7, 1990. Cynthia Claus, ARCO Pipeline to Thomas Davis, Assistant Attorney General, State of Illinois. (ARCO identifies three spills dating to June 7, 1982, July 12, 1981, and January 8, 1981).

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300
Cynthia L. Claus
Counsel

September 7, 1990

Mr. Thomas Davis
Assistant Attorney General
Environmental Control Division
Office of the Attorney General
State of Illinois
Springfield, IL 62706

Dear Mr. Davis:

This is in response to your letter of July 20, 1990 to Francis McCormack of Atlantic Richfield Company. As we recently discussed, I represent ARCO Pipe Line Company ("APL"), a subsidiary of Atlantic Richfield Company, and am the appropriate contact regarding this matter.

APL has provided certain services related to the operation of a pipeline owned by Sinclair Pipe Line Company ("Sinclair") pursuant to an agreement between APL and Sinclair dated December 31, 1979 (the "Agreement"). Pursuant to the terms of the Agreement, APL notified Sinclair on July 24, 1990 that the Agreement was terminated effective September 1, 1990.

APL has been in contact with Sinclair concerning Illinois EPA's request to sample the contents of the pipeline, and has cooperated with Sinclair in sampling and evacuating the contents of the pipeline.

During the time APL performed services on this pipeline for Sinclair, there have been three incidents in which petroleum products escaped. On June 7, 1982, approximately nine barrels of #2 fuel oil were lost due to a corrosion pit. On July 12, 1981, approximately 24 barrels of gasoline were lost due to a corrosion leak. On January 8, 1981, approximately five barrels of gasoline escaped due to a corrosion pit. Each of these incidents occurred on the portion of line that was in existence at the time APL entered into the Agreement. Permanent repairs were made following each incident.

With regard to your request that pressure testing be conducted on the line (following its evacuation), since APL will no longer be providing

RECEIVED

SEP 1 2 1990

IEPA-DLPC

services to Sinclair on this line after September 1, 1990, we suggest this be pursued with Sinclair.

Please accept my apologies for the delay in responding to your letter. I hope the foregoing information is of assistance to you. If you have any further questions, please let me know.

Very truly yours,

CYNTHIA L. CLAUS

CLC:ab

V.H. Sinclair Oil Corporation Summary of Known Leaks.

Record of Known Releases Sinclair Hartford 10-inch Pipeline During Sinclair Ownership/ARCO Operation		
Date	Event	Amount
January, 1981	Sinclair Hartford Pipeline	5 barrels gasoline.[1]
July, 1981	Sinclair Hartford Pipeline	24 barrels gasoline[1]
June, 1982	Sinclair Hartford Pipeline	9 barrels of #2 Fuel Oil[1]
November, 1982	Sinclair/ARCO pipeline leak at 700 block North Olive.	157 barrels Diesel Fuel[2] Sources: Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Company, September 8, 2003 (citing Village of Hartford Reporting Officer, November 5, 1982); K. Grove internal memorandum, 11/15/82.
August, 1990	Sinclair Hartford Pipeline	241 barrels unleaded gasoline.[3]
	Total Volumes	270 barrels (11,340 gallons) gasoline; 166 barrels (6,972 gallons) fuel oil.

[1] Sources: Correspondence, September 7, 1990. Cynthia Claus, ARCO Pipeline to Thomas Davis, Assistant Attorney General, State of Illinois. (ARCO identifies three spills dating to June 7, 1982, July 12, 1981, and January 8, 1981).

[2] Sources: Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Company, September 8, 2003 (citing Village of Hartford Reporting Officer, November 5, 1982); K. Grove Sinclair Marketing internal memorandum, 11/15/82.

[3] See Attached Calculation Summary

Calculations Summary
Hartford 10-inch Line Fill Volume and 1990 Recovery
Sinclair Oil Corporation, November 7, 2003
D.E. Stice

Inventory Shortage = Line Fill Volume - 1990 Recovered Volume

Line Fill Volume = Pipeline cross-sectional area x Pipeline length.

1990 Recovered Volume as measured in field at time of recovery.

I. Line Fill Volume: Area.

Nominal Diameter of pipeline purged during 1990 = 10 inches.
(Actual diameter = 10.02 inches)

Area = Π x $(\text{Diameter}/2)^2$ = 0.545 square feet

Area x (0.971 barrels/cubic feet) = 0.0971 barrels/lineal feet

II. Line Fill Volume: Pipeline length of 10-inch Pipeline

Estimated from Survey Data = 5,720.6 feet

Sources: (1) - Drawing No. WR003-FM-1223, Clark Oil & Refining. December, 7, 1979. Piping Location Plan, Existing 10" Proposed Sinclair Products Line from Amoco Products Line at Clark Pumps to West Clark Property Line. Revised March 6, 1980.
(2) - Drawing No. WR017, Sheet No. FM3. Sinclair Refining Co., New York. May 27, 1952. 2 10" Lines to Products Tank Farm, 1 6" C.I. Water Line to Tank Farm Through City of Hartford. Revised March 5, 1965.
(3) - Drawing WR00-DB-141, Clark Oil and Refining. March 4, 1980. 10" Product Lines in Parcel No. 12 from Point of Beginning thru Point "A" to Point "B."

Estimated from 1990 field measurements = 5706.5 ft.

Sources: Field notes, Rolatape measured by KL Grove and Mike Howerton, 9/11/90. Starting at Skillet Blind in Clark Refinery to ending point in front of Tank 80-8, Hartford-Wood River Terminal.

For purposes of Line Fill Volume estimation: 5,720.6 feet.

Line Fill Volume

5,720.6 feet x 0.0971 barrels/foot = 555.7 barrels = 23,338.4 gallons

1990 Recovered Volumes

13,213 gallons = 315 barrels

Source: K Grove's August, 1990 field notes of tank truck discharge measured at Keller-Piasa Terminal, 8/28/90 through 8/30/90.

Summary of Inventory Shortage, August 1990 evacuation of Sinclair's Hartford 10-inch Pipeline

Discrepancy = Line Fill Volume – Recovered Volume

= 555.7 – 315 barrels = 240.7 barrels = 10,108 gallons

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

RECEIVED 5-2-83 K.L.S.

Invoice

Number	Please show this number and date on remittance and correspondence. Thank you!
14625	
Date: ~~April 20, 1983~~	

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

We CHARGE your account

Costs incurred by ARCO Pipe Line Company in connection with the operation of a pipeline between Clark's Wood River Refinery and APL's Wood River Pipeline Station, per agreement dated December 31, 1979. Our U.D. Job #215.

Detail Attached $4,780.59

3750-8200-19
5-2-83
K. L. Grove

ARPL-90-D

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 215

				Amount	Total
1.	Labor			$	$
	Pipeliner			374.40	
	Truck Driver			194.24	
	Welder			211.36	
	Maintenance Foreman			278.36	1,058.36
2.	Employee Benefits - Paid to Employees				
	Sick Benefits	2.26% of Labor 11		23.92	
	Vacation Pay	6.29% of Labor 12		66.57	
	Holiday Pay (Unworked)	3.58% of Labor 12		37.89	128.38
3.	Total Direct Labor				1,186.74
4.	Other - Labor Costs				
	Employee Benefits - Company Cost of Premiums				
	Group Insurance	1.32% of Item 370	15.66		
	Benefit Plan	5.17% of Item 370	61.35		
	Retirement Plan	10.66% of Item 370	126.51		
	Savings Plan	3.07% of Item 370	36.43	239.95	
	Social Security Taxes				
	F.I.C.	6.41% of Item 371	76.07		
	F.U.I.	.30% of Item 371	3.56		
	S.U.I.	.54% of Item 371	6.41	86.04	
	Workmen's Comp. Ins.	1.80% of Item 372		21.36	
	General Liability Ins.	3.88% of Item 361		46.05	
5.	Total Other Labor Costs				393.40
6.	Travel Expense				
	Truck Driver			70.00	
	Pipeliner - 2			140.00	
	Welder			70.00	
	Deliveryman			26.50	
	Maintenance Foreman			86.35	392.85
7.	Vehicle Expense				
	1979 Chev. Suburban			85.31	
	1981 1-Ton Welding Truck			121.18	
	1982 2.5 Ton Chevrolet			207.35	413.84
8.	Material			20.30	20.30
9.	Contract Payments			2,122.00	2,122.00
10.	Subtotal				4,529.13
11.	Overhead & Supervision				
	5% of Accumulated Total			226.46	226.46
12.	Service Charge			25.00	25.00
13.	Total				$4,780.59

Georgewitz Contracting Company
2813 WEST DELMAR
GODFREY, ILL. 62035

466-2526

TO ARCO PIPE LINE

HARTFORD, ILLINOIS 62048

INVOICE DATE	SALESMAN
DECEMBER 10, 1982	

SHIP TO
SAME

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
	12/8/82	OUR EQUIP.	DELIVERED	

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
8	HOURS BACKHOE & OPERATOR	45.00	$ 360.00

SC 5101 215 C1
Permanent Rec. of
CIARKIC" K. Lark 11-15-82
PER W.O. CAR-1
Rec
12-16-82

RECEIVED

Payables and D...

ORIGINAL

Thank You

VERIFYING 2

FORM 105-3 Available from NEBS Inc., Groton, Mass. 01450

12-16

INVOICE

TRIAD INDUSTRIAL CLEANING COMPANY

Customer	Arco Pipeline Co.	Billing Date 12-1-82	Billing Due 1-1-83
P.O. No.		Bid Date	Start Date
F.O.B. No.	delivered	Cal. Days	Work Days
Job Sup.	R. Jones	Total Hours	
Contacted By	Jerry Witt		

Pipeline transfer spill

JOB ORDER
or
QUOTATION

RECEIVED

Payables and Distribution

Location Hartford Illinois

TOTAL CHARGE BREAKDOWN:

November 5, 1982 5:30pm - 11:30p.m.
Vacuum Truck and operator @ $57.00 per hr. x 6hrs. = $342.00
1 extra man @ $25.00 per hr. x 6hrs. = $150.00

November 7, 1982 11:00a.m. - 2:00p.m.
Vacuum Truck and operator @ $57.00 per hr. x 3hrs. = $171.00
1 extra man @ $25.00 per hr. x 3 hrs. = $75.00

Or [illegible] pick up product [illegible] "[illegible]"

VERIFYING 2

TOTAL AMOUNT DUE $738.00
15 DAYS FROM BILLING DATE

PLEASE REMIT ALL PAYMENTS TO: RICK L. JONES
777 East Rosedale Ave.
East Alton, Ill. 62024

777 EAST ROSEDALE AVE. • EAST ALTON • ILLINOIS • 62024 • (618) 259-8175

Georgewitz Contracting Company
[redacted] 2813 WEST DELMAR
GODFREY, ILL. 62035

466-2526 [redacted]

TO ARCO PIPE LINE CO.

HARTFORD, ILLINOIS 62048

11-28

INVOICE DATE: NOVEMBER 18, 1982
SALESMAN:
SHIP TO: SAME

RECEIVED

Payables and Distribution

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
—	BELOW	OUR EQUIP.	DELIVERED	

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
11/5/82	4 TON SAND	3.50	14.00
	6½ HOURS TRUCK & DRIVER	45.00	292.50
	6½ HOURS DRIVER OVERTIME WORK PERFORMED AFTER 5PM	11.00	71.50
11/6/82	3½ HOURS BACKHOE & OPERATOR 750 FORD	65.00	552.50
	8½ HOURS OPERATOR OVERTIME WORK PERFORMED ON SATURDAY	11.00	93.50
			$ 1,024.00

50 5101 215 01 73
Reps Pic Lease
on Clark 10" Pipe Wo
CR2-3
Raw 4
12-16-81
Jane E Rubertus

VERIFYING 2

ORIGINAL

Thank You

STATEMENT COPY

KENNETH E. WARREN | JANICE A. MILLER | RON E. MILLER

Warren Lumber Company

DEALERS IN

Building Materials, Paints, Varnishes, Glass, Hardware

SPECIAL PLAN SERVICE
602 East Benton

EXCLUSIVELY HOME OWNED
Phone 542-0640

Carrollton, Mo.

Date 12/06 1982

Sold to ARCO PIPELINE

Address

Ordered by

Location of Job

Order No.

CASH

PIECES	SIZE	L'GTH	DESCRIPTION	FEET	TOTAL FEET	PRICE	AMOUNT	
10	2½	x6½	POST			1 95	19	50
								80
							20	30

Paid

TERMS: Accounts are due and payable 10th of month following date of purchase. If different terms are desired, please make arrangements with our office before delivery is made.

Total Sale

Sales Tax

TOTAL

22060

HOUSEWORTH PRINTING CO. - CARROLLTON, MO 64633

V.D. Transmittal letter and Invoice, July 3, 1985. JR Sebastian, ARCO Pipe Line to Sinclair Marketing, attn. K. Grove. Costs incurred in connection with operation of pipe line between Clark refinery and APL Wood River Station. (For work rendered during May, 1985, apparently including contract services to excavate and repair leak resulting in 1990 discrepancy.)

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300
John R. Sebastian, Manager
Land & Right Of Way Department

July 3, 1985

Mr. Ken Grove
Sinclair Marketing, Inc.
P. O. Box 6247
Kansas City, KS 66100

Dear Mr. Grove:

Re: Agreement dated December 31, 1979,
Our U. D. Job No. 68.

Under Agreement dated December 31, 1979, ARCO Pipe Line Company has performed work for your company in connection with the operation of a pipe line between Clark's Wood River Refinery and our Wood River Refinery.

Therefore, enclosed please find five copies of our Invoice No. W-2328, in the amount of $15,239.47, covering work rendered for the month of May 1985. After approval please place this invoice in line for payment and forward a check, in the above amount, to ARCO Pipe Line Company, ARCO Building, Independence, KS 67301, Attn: Ms. Carol Staton.

Yours truly,

John R. Sebastian
lr

JOHN R. SEBASTIAN
by Louise Russell

lr
Enc.

cc: Mr. R. J. Osborn
Mr. F. L. Neeley, Attn: N. L. Coder
Mr. R. K. Oberdick

Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

Invoice

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

Number W-2328

Date July 2, 1985

Please show this number and date on remittance and correspondence Thank you!

We CHARGE your account

For costs incurred by ARCO Pipe Line Company for Sinclair Marketing, Inc., for work rendered during the month of May, 1985, in connection with the operation of a pipeline between Clark's Wood River Refinery and ARCO Pipe Line Company's Wood River Pipeline Station, per agreement dated December 31, 1979. Our Unadjusted Debit Job No. 68.

$15,239.47

3750-8200-19

APPROVED FOR PAYMENT
KENTON L. GROVE
By _____
7-11-85

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

			Amount	Total
1.	Labor			
	Maintenance Foreman, 40 hrs.		$ 810.38	$
	Deliveryman, 53.3 hrs.		612.03	
	Pipeliner, 76.7 hrs.		1,016.11	
	Truck Driver, 152.7 hrs.		2,175.96	4,614.48
2.	Employee Benefits - Paid To Employees			
	Sick Benefits - 2.25% of Labor	103.83		
	Vacation Benefits - 6.28% of Labor	289.79		
	Holiday Pay (Unworked) - 3.42% of Labor	157.81	551.43	
3.	Total Direct Labor			5,165.91
4.	Other Labor Costs			
	Employee Benefits - Company Cost of Premiums			
	Group Insurance - 1.04% of Item 3	53.72		
	Benefit Plan - 5.76% of Item 3	297.56		
	Retirement Plan - 6.12% of Item 3	316.15		
	Savings Plan - 4.05% of Item 3	209.22	876.65	
	Social Security Taxes			
	F.I.C. - 6.74% of Item 3	348.18		
	F.U.I. - .16% of Item 3	8.27		
	S.U.I. - .62% of Item 3	32.03	388.48	
	Workmen's Comp. Ins. - 2.17% of Item 3		112.10	
	General Liability Ins. - 4.67% of Item 3		241.25	
5.	Total Other Labor Costs			1,618.48
6.	Overhead, Supervision & Other Indirect Costs			
	124.56% of Item 3			6,434.66
7.	Material			
	Fittings (2" and over)		18.91	
	Miscellaneous: Gasket, Locknut, Hoses, Ferrules, etc.		44.48	63.39
8.	Contract Payments/Outside Services			
	George Witz Contracting Co. (Dig out leak)		527.00	
	Triad Industries, Inc. (Vacuum Truck)		111.72	638.72
9.	Travel Expense			
	Maintenance Foreman		256.15	
	Pipeliner		234.50	
	Truck Driver		512.44	1,003.09

STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68
PAGE 2

	Amount	Total
10. Company-Owned Vehicles		
H.E. 4856, 1981 Chev. 1-T Welding Truck, 618 mi.	165.87	
H.E. 4953, 1983 Chev. Surburban 1/2 T., 660 mi.	149.35	315.22
11. Total		$15,239.47

V.E. Invoice W-2379, January 22, 1986. (Notation indicates that line was pressure tested during October and November, 1985, and no leak was found.)

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331 1300

Invoice

Number	Please show this number and date on remittance and correspondence. Thank you!
W-2379	
Date: January 22, 1986	

We CHARGE your account

Sinclair Marketing, Inc.
Attn: Ken Grove
P.O. Box 6247
Kansas City, KS 66100

For costs incurred by ARCO Pipe Line Company for Sinclair Marketing, Inc. for work rendered during the month of October and November, 1985, in connection with the operation of a pipeline between Clark's Wood River Pipeline Station, per agreement dated December 31, 1979.
Our Unadjusted Debit Job No. 68. $1,980.62

Conversation with Kevin Oberdick (ARCO Carrollton Dist. Mgr. 2-24-86

Charges cover the pressure testing of line checking for suspected leak. No leak found.
K. L. Grove.

APPROVED FOR PAYMENT
KENTON L. GROVE
By K. L. Grove.
2-24-86

3750-8200-19

Terms: Net 30

ARPL-90-D

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

			Amount	Total
1.	Labor			
	Corrosion Engineer 16.0 hrs.		$291.34	
	Maintenance Foreman 16.0 hrs.		303.09	
			594.43	
2.	Employee Benefits - Paid To Employees			
	Sick Benefits - 2.25% of Labor	$13.37		
	Vacation Pay - 6.28% of Labor	37.33		
	Holiday Pay (Unworked) - 3.42% of Labor	20.33	71.03	
3.	Total Direct Labor			$665.46
4.	Other Labor Costs			
	Employee Benefits - Company Cost of Premiums			
	Group Insurance - 1.04% of Item 3	6.92		
	Benefit Plan - 5.76% of Item 3	38.33		
	Retirement Plan - 6.12% of Item 3	40.73		
	Savings Plan - 4.05% of Item 3	26.95	112.93	
	Social Security Taxes			
	F.I.C. - 6.74% of Item 3	44.85		
	F.U.I. - .16% of Item 3	1.06		
	S.U.I. - .62% of Item 3	4.13	50.04	
	Workmen's Comp. Ins. - 2.17% of Item 3		14.44	
	General Liability Ins. - 4.67% of Item 3		31.08	
5.	Total Other Labor Costs			208.49
6.	Overhead, Supervision & Other Indirect Costs			
	124.56% of Total 3			828.90
7.	Travel Expense			
	Engineer, Corrosion			149.18
8.	Miscellaneous			
	Post Hole Digger - Star Drill			27.61

ARCO PIPE LINE COMPANY
STATEMENT OF COSTS
UNADJUSTED DEBIT JOB NO. 68

		Amount	Total
9.	Company-Owned Vehicles		
	HE 4859, 1982 Ford Station Wagon		100.98
10.	Total		$1,980.62

V.F. Correspondence from Ivan Huntoon, Pipeline Safety, Department of Transportation to Tom Powell, IEPA. Pressure test of Sinclair Pipeline from Clark Refinery to ARCO pump station, Hartford, Ill.

U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Central Region Pipeline Safety

911 Walnut Street
Kansas City, Missouri 64106

September 7, 1990

Mr. Tom Powell
Emergency Response Specialist
Illinois Environmental Protection Agency
2009 Mall Street
Collinsville, Illinois 62234

Dear Mr. Powell:

This letter is to confirm the phone conversation between our office's on September 5, 1990, concerning the recent pressure test of the Sinclair pipeline from the Clark Refinery to the Arco Pumping Station in Hartford, Illinois.

Rolland Miller from the Office of Pipeline Safety (OPS), Central Region, Kansas City, Missouri, observed partial drainup and testing of the line on August 30-31, 1990. The following Arco and Sinclair personnel were present for portions of the drainup and tests:

Name:	Company:	Base:
Jim Loving	Sinclair	Salt Lake City, Utah
Ken Grove	Sinclair	Kansas City, Missouri
Dennis Dooley	Arco	Carrollton, Missouri

Sinclair calculated the line fill to be approximately 600 barrels. Approximately 350 barrels of gasoline was recovered from the line by use of a vacuum truck and the evacuation of the line by use of a polypig which was pushed through the line by nitrogen gas. It is possible that some of the unaccounted for gasoline seeped past the polypig when the drainup operation was interrupted to refill the nitrogen truck.

After drainup the line was pressurized to approximately 85 psig with nitrogen gas and put on test at 9:45 pm on 8/30/90. At 10:20 pm, the pressure had dropped to 70 psig. At 1:00 am on 8/31/90, the pressure on the line had dropped to zero. At 9:00 am on 8/31/90, the line was repressured with the remaining nitrogen to 30 psig. The pressure immediately began to drop off on the pressure recording chart at about the same rate as in the previous test. These tests indicate that there is a leak sorewhere in the line. During the tests the above ground piping was examined for leakage and no leaks were discovered during this examination.

The Sinclair personnel discussed their next course of action and did not decide on anything specific. They are considering filling and pressurizing the line with water to locate the area of leakage. Because of the upcoming long Labor Day weekend, further testing was not feasible. When Mr. Miller left the site nothing definite had been decided. Mr. Loving will call OPS when a decision has been made and OPS will keep your office informed.

Sincerely,

Ivan A. Huntoon

Ivan A. Huntoon
Chief, Central Region
Office of Pipeline Safety

V.G. Correspondence, September 7, 1990. Cynthia Claus, ARCO Pipeline to Thomas Davis, Assistant Attorney General, State of Illinois. (ARCO identifies three spills dating to June 7, 1982, July 12, 1981, and January 8, 1981).

ARCO Pipe Line Company
ARCO Building
Independence, Kansas 67301
Telephone 316 331-1300
Cynthia L. Claus
Counsel

September 7, 1990

Mr. Thomas Davis
Assistant Attorney General
Environmental Control Division
Office of the Attorney General
State of Illinois
Springfield, IL 62706

Dear Mr. Davis:

This is in response to your letter of July 20, 1990 to Francis McCormack of Atlantic Richfield Company. As we recently discussed, I represent ARCO Pipe Line Company ("APL"), a subsidiary of Atlantic Richfield Company, and am the appropriate contact regarding this matter.

APL has provided certain services related to the operation of a pipeline owned by Sinclair Pipe Line Company ("Sinclair") pursuant to an agreement between APL and Sinclair dated December 31, 1979 (the "Agreement"). Pursuant to the terms of the Agreement, APL notified Sinclair on July 24, 1990 that the Agreement was terminated effective September 1, 1990.

APL has been in contact with Sinclair concerning Illinois EPA's request to sample the contents of the pipeline, and has cooperated with Sinclair in sampling and evacuating the contents of the pipeline.

During the time APL performed services on this pipeline for Sinclair, there have been three incidents in which petroleum products escaped. On June 7, 1982, approximately nine barrels of #2 fuel oil were lost due to a corrosion pit. On July 12, 1981, approximately 24 barrels of gasoline were lost due to a corrosion leak. On January 8, 1981, approximately five barrels of gasoline escaped due to a corrosion pit. Each of these incidents occurred on the portion of line that was in existence at the time APL entered into the Agreement. Permanent repairs were made following each incident.

With regard to your request that pressure testing be conducted on the line (following its evacuation), since APL will no longer be providing

RECEIVED

SEP 1 2 1990

IEPA-DLPC

services to Sinclair on this line after September 1, 1990, we suggest this be pursued with Sinclair.

Please accept my apologies for the delay in responding to your letter. I hope the foregoing information is of assistance to you. If you have any further questions, please let me know.

Very truly yours,

Cynthia L. Claus

CYNTHIA L. CLAUS

CLC:ab

V.H. Sinclair Oil Corporation Summary of Known Leaks.

Record of Known Releases Sinclair Hartford 10-inch Pipeline During Sinclair Ownership/ARCO Operation		
Date	Event	Amount
January, 1981	Sinclair Hartford Pipeline	5 barrels gasoline.[1]
July, 1981	Sinclair Hartford Pipeline	24 barrels gasoline[1]
June, 1982	Sinclair Hartford Pipeline	9 barrels of #2 Fuel Oil[1]
November, 1982	Sinclair/ARCO pipeline leak at 700 block North Olive.	157 barrels Diesel Fuel[2] Sources: Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Company, September 8, 2003 (citing Village of Hartford Reporting Officer, November 5, 1982); K. Grove internal memorandum, 11/15/82.
August, 1990	Sinclair Hartford Pipeline	241 barrels unleaded gasoline.[3]
	Total Volumes	270 barrels (11,340 gallons) gasoline; 166 barrels (6,972 gallons) fuel oil.

[1] Sources: Correspondence, September 7, 1990. Cynthia Claus, ARCO Pipeline to Thomas Davis, Assistant Attorney General, State of Illinois. (ARCO identifies three spills dating to June 7, 1982, July 12, 1981, and January 8, 1981).

[2] Sources: Gasoline and Other Hydrocarbons Under the Hartford Area: A Complex Issue, D. Hommert, Apex Oil Company, September 8, 2003 (citing Village of Hartford Reporting Officer, November 5, 1982); K. Grove Sinclair Marketing internal memorandum, 11/15/82.

[3] See Attached Calculation Summary

Calculations Summary
Hartford 10-inch Line Fill Volume and 1990 Recovery
Sinclair Oil Corporation, November 7, 2003
D.E. Stice

Inventory Shortage = Line Fill Volume - 1990 Recovered Volume

Line Fill Volume = Pipeline cross-sectional area x Pipeline length.

1990 Recovered Volume as measured in field at time of recovery.

I. Line Fill Volume: Area.

Nominal Diameter of pipeline purged during 1990 = 10 inches.
(Actual diameter = 10.02 inches)

Area = Π x $(\text{Diameter}/2)^2$ = 0.545 square feet

Area x (0.971 barrels/cubic feet) = 0.0971 barrels/lineal feet

II. Line Fill Volume: Pipeline length of 10-inch Pipeline

Estimated from Survey Data = 5,720.6 feet

Sources: (1) - Drawing No. WR003-FM-1223, Clark Oil & Refining. December, 7, 1979. Piping Location Plan, Existing 10" Proposed Sinclair Products Line from Amoco Products Line at Clark Pumps to West Clark Property Line. Revised March 6, 1980.
(2) - Drawing No. WR017, Sheet No. FM3. Sinclair Refining Co., New York. May 27, 1952. 2 10" Lines to Products Tank Farm, 1 6" C.I. Water Line to Tank Farm Through City of Hartford. Revised March 5, 1965.
(3) - Drawing WR00-DB-141, Clark Oil and Refining. March 4, 1980. 10" Product Lines in Parcel No. 12 from Point of Beginning thru Point "A" to Point "B."

Estimated from 1990 field measurements = 5706.5 ft.

Sources: Field notes, Rolatape measured by KL Grove and Mike Howerton, 9/11/90. Starting at Skillet Blind in Clark Refinery to ending point in front of Tank 80-8, Hartford-Wood River Terminal.

For purposes of Line Fill Volume estimation: 5,720.6 feet.

Line Fill Volume

5,720.6 feet x 0.0971 barrels/foot = 555.7 barrels = 23,338.4 gallons

1990 Recovered Volumes

13,213 gallons = 315 barrels

Source: K Grove's August, 1990 field notes of tank truck discharge measured at Keller-Piasa Terminal, 8/28/90 through 8/30/90.

Summary of Inventory Shortage, August 1990 evacuation of Sinclair's Hartford 10-inch Pipeline

Discrepancy = Line Fill Volume – Recovered Volume

= 555.7 – 315 barrels = 240.7 barrels = 10,108 gallons