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Site: Arco Petroleum
ID #: KSD980632194
Break: 17.9
Other: 3-25-87

ABSTRACT FOR
ARCO/SINCLAIR/DYMON
KANSAS CITY, KS

RESPECTFULLY SUBMITTED BY:

THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF ENVIRONMENTAL REMEDIATION

MARCH 25, 1987

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Superfund

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ABSTRACT

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ARCO/SINCLAIR/DYMON
KANSAS CITY, KS
NW 20-11S-25E

The original Sinclair Refinery in Kansas City, Kansas operated as a refinery from 1917 until 1949, on approximately 130 acres. In 1949 refinery operations were discontinued and the processing equipment disconnected. Currently three entities own the original 130 acre site.

A 52 acre portion of the former refinery is owned by Sinclair Marketing, Inc., Salt Lake City, Utah. Sinclair operates a product storage terminal which stores premium and regular gasoline, kerosene, and No. 1 and No. 2 fuel oils. Product storage at the site has ranged between 8,000 to 96,000 barrels from which shipping is continuously taking place. Sinclair Marketing Inc. also leases a building and some land on the original refinery property to Dymon, Inc., Kansas City, Kansas. Dymon's operations include the manufacturing of commercial strength cleaners and insect sprays. A RCRA inspection conducted at Dymon on October 25, 1985 revealed that the facility generates a hazardous waste defined as waste lacquer thinner - D001. The quantity of hazardous waste generated at Dymon is less than 50 kilograms per month, therefore, Dymon is considered a small quantity generator.

Arco Pipeline Company, Los Angeles, California, owns approximately 42 acres of the property which includes a pipeline and six large petroleum product tanks, that have a storage capacity of 96,000 barrels.

The remaining 36 acres of the original property is owned by the Graves family. This area of land is currently vacant, however, there are plans to install a miniature golf course and driving range on the property.

A variety of chemicals have been detected both on site, and as being released from the site. These include 14 purgable organics, six (6) acid extractables, nine (9) base neutral extractables, four (4) pesticides, and one (1) heavy metal. Values of these contaminants ranged between not detected to 6,330,000.0 parts per billion (ppb).

Historical documentation and the site investigation revealed several environmental problems which could be contributing to the detected contamination at this site. An old septic tank and lateral field with a capacity of 13,000 gallons is used for sanitary waste. The effluent from this septic tank discharges to a pump from which it flows to an outlet on the Kansas River. A permit (1961) was granted for this discharge. A second possible contributor is the on site storm waste drainage system. This

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system receives all drainage from tanks, spillage from the tank and truck loading operations, rinsate from Dymon's mixing vats and all storm runoff (contaminated and uncontaminated). This accumulated waste water flows to an old oil separator which contains an oil skimmer. When the separator reservoir is full, a pump is manually activated which discharges the waste water into a ditch that eventually discharges to the Kansas River, at a point across from the Colgate Palmolive Company, through a concrete effluent structure.

Sediment that has accumulated in this old separation pit is occasionally scooped out and deposited on an area of land near the separator. These deposits are mixed with the soil in a type of landfarming activity. There is no type of containment around or beneath this disposal area.

A complete Preliminary Assessment/Site Investigation (PA/SI) was conducted at this site by the Kansas Department of Health and Environment, Bureau of Environmental Remediation. The data obtained from these investigation were used in the HRS Scoring. Aspects of the PA/SI are listed below.

1. Extensive File Review
2. Geophysical Survey
3. Monitoring Well Installation
4. Construction of Soil Borings
5. Sampling
6. Special Tasks
7. HRS Scoring
8. Narrative Summary

The investigation which involved the placement of three (3) monitoring wells, the measurement of apparent terrain conductivity over the site, the augering of six (6) soil borings and the sampling of pre determined sampling points confirmed that both the surface water medium and the groundwater medium have been contaminated from the Arco/Sinclair/Dymon Facility.

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SUMMARY OF INVESTIGATIVE RESULTS

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BRIEF SUMMARY OF INVESTIGATIVE RESULTS

1. A Geophysical Survey was conducted over the site with a Geonics EM-34L, which measures apparent terrain conductivity. A total of 604 readings were taken in both the horizontal and vertical modes. Results indicate that the area covered by the survey is a highly disturbed area of fill material. Large areas of high and low resistivity occurred throughout the surveyed area. Refer to maps 1 and 2

2. The "aquifer of concern" is located within the Kansas River Valley Alluvium.

3. Contamination of groundwater in the subsurface has occurred beneath the site and is migrating northeasterly. Refer to Reference 1 of the HRS package.

4. The groundwater flow was northeast at an average hydraulic gradient of .0002 feet per foot on November 3, 1986. Refer to maps 3 and 4.

5. Borings indicate the presence of a lower permeable clay layer. This clay layer was found between depths of 4 to 6 feet and is very discontinuous throughout the site. The layer tends to serve as preferential flow path for upper migrating waters. Perched water upon the clay layer is contaminated with petroleum related constituents. Refer to map 5.

6. No known public or domestic wells exist within the three mile radius of Arco/Sinclair/Dymon. Refer to Reference 7, "Arco/Sinclair/Dymon Area Base Map" of the HRS package.

7. An old oil separator located on the Sinclair property acts as a receiving unit for drainage, spillage, rinsate and storm waste collected by the storm sewer system located throughout the current site.

8. The accumulated waste water in the oil separator is periodically discharged by a pump to a drainage ditch that empties into the Kansas River. Refer to map 6 for sampling locations and map 7 for surface water drainage.

9. Samples collected from this drainage indicate very high contamination (6,330,000.0 ppb) of a variety of hazardous constituents, being released from the site. Refer to Reference 1 of the HRS package.

10. There are no municipal surface water intakes located within three downstream miles of the site. Refer to Reference 7, "Arco/Sinclair/Dymon Area Base Map" of the HRS package.

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11. Accumulated sediments in the oil separator are being deposited on land, with no containment facilities. These sediments are very high in contamination. Refer to Reference 1 of the HRS package.

12. Contamination from this site may be related to both present and past operations.

13. The Arco/Sinclair/Dymon site was given a HRS score of 13.10. Refer to the HRS package.

Additional data collected during the investigation is included in Appendix A, "Additional Data".

ARCO/SINCLAIR/DYMON

GEOPHYSICAL SURVEY (HD)-10m seperation

MAP 1

ρ_a=ohms-meter

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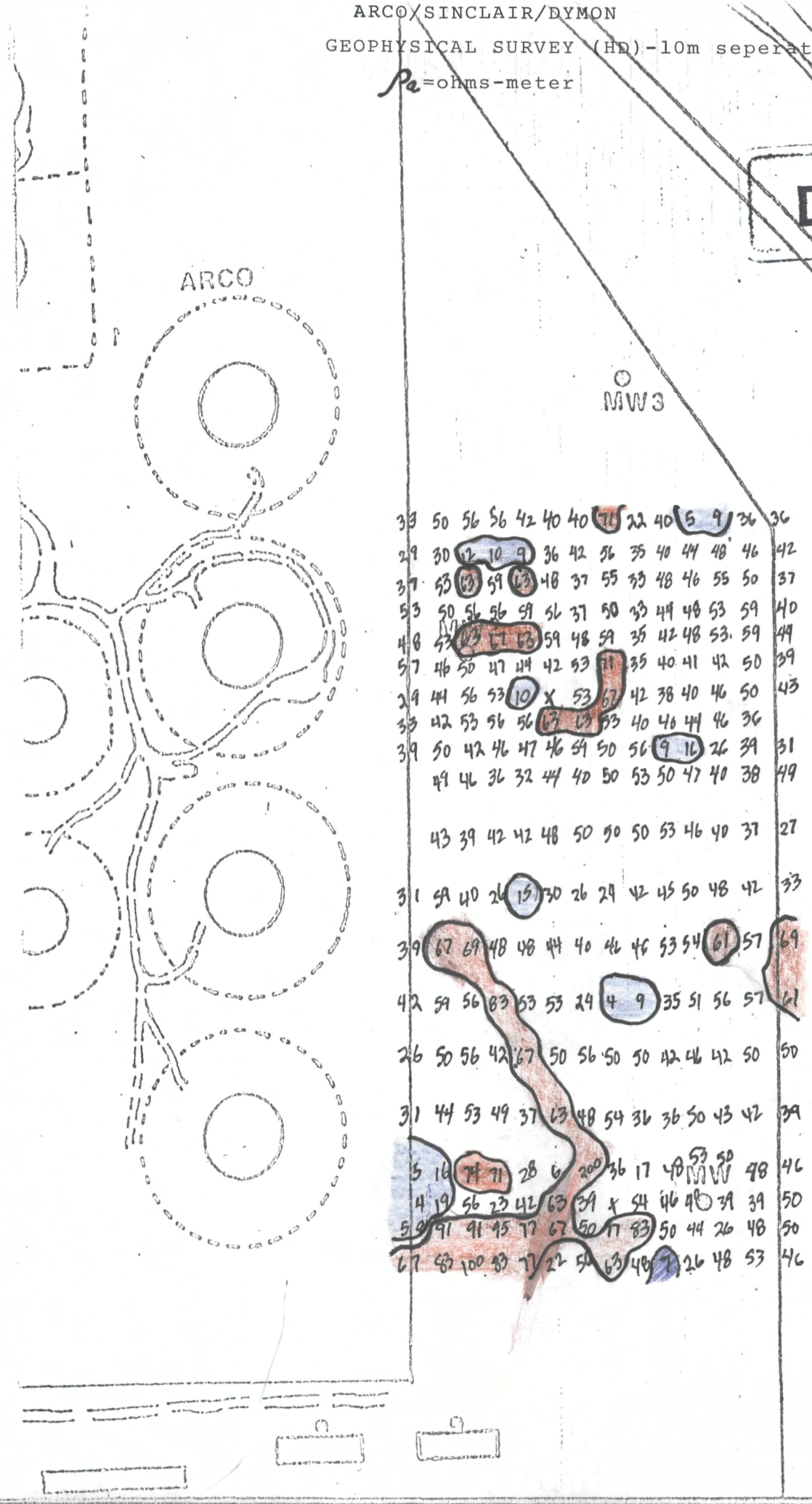

RESISTIVITY=ρ

blue-low ρ_a

red-high ρ_a

ARCO/SINCLAIR/DYMON

GEOPHYSICAL SURVEY (VD)-10m seperation

MAP 2

ρ_a =ohms-meter

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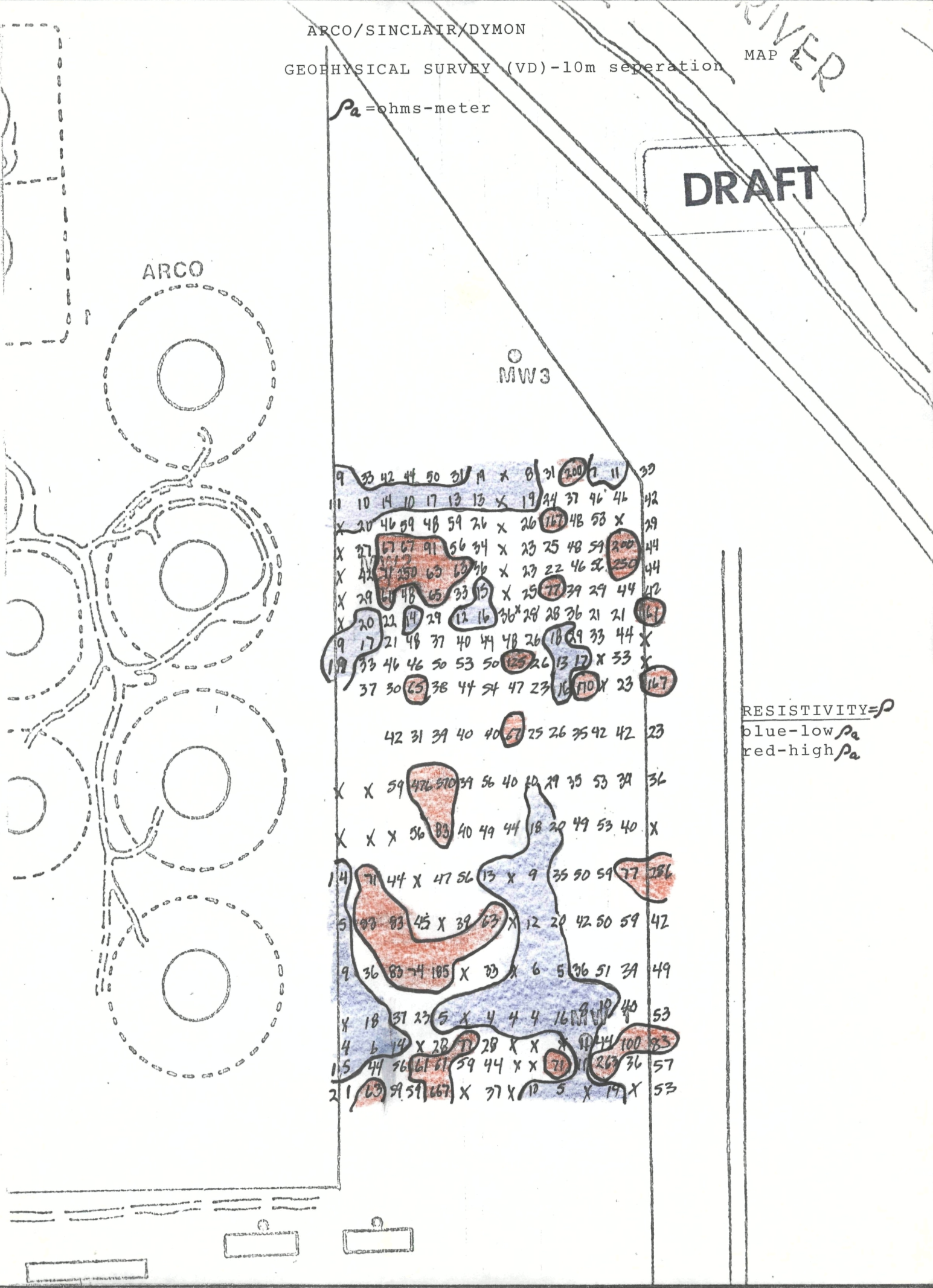

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APPENDIX A

Additional Data

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1. GEOPHYSICAL SURVEY RESULTS

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GEOPHYSICAL RESULTS

PROJECT: Arco Kansas City, KS

LEGAL: NW 20-11S-25E

COUNTY: Wyandotte

INSTRUMENT USED: Geonics

DATE: 10-13-86

SURVEYORS: Roth, Bean, Brinkley, Parhomek

STATION	SEPERATION(M)	CONDUCTIVITY(MMHO/M)	RESISTIVITY(OHM/M)
Fence0H	10	30	33.3
Fence0V	10	110	9.0
0,0 H	10	20	50.0
0,0 V	10	30	33.3
1,0 H	10	18	55.6
1,0 V	10	24	41.7
2,0 H	10	18	55.5
2,0 V	10	23	43.5
3,0 H	10	24	41.7
3,0 V	10	20	50.0
4,0 H	10	25	40.0
4,0 V	10	32	31.25
5,0 H	10	25	40.0
5,0 V	10	58	19.2
6,0 H	10	14	71.4
6,0 V	10	--	---
7,0 H	10	46	21.7
7,0 V	10	120	8.30
8,0 H	10	25	40.0
8,0 V	10	32	32.25
9,0 H	10	190	5.3
9,0 V	10	5	200.0
10,0H	10	110	9.0
10,0V	10	145	6.9
11,0H	10	28	35.7
11,0V	10	92	10.9
12,0H	10	28	35.7
12,0V	10	30	33.3
Fence-1H	10	35	28.6
Fence-1V	10	90	11.0
0,-1H	10	33	30.3
0,-1V	10	99	10.1
1,-1H	10	83	12.1
1,-1V	10	74	13.5
2,-1H	10	96	10.4
2,-1V	10	100	10.0
3,-1H	10	110	9.0
3,-1V	10	60	16.6
4,-1H	10	28	35.7

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4,-1V	10	75	13.3
5,-1H	10	24	41.7
5,-1V	10	80	12.5
6,-1H	10	18	55.5
6,-1V	10	--	---
7,-1H	10	29	34.5
7,-1V	10	52	19.2
8,-1H	10	25	40.0
8,-1V	10	41	24.4
9,-1H	10	23	43.5
9,-1V	10	27	37.0
10,-1H	10	21	47.6
10,-1V	10	22	45.5
11,-1H	10	22	45.5
11,-1V	10	22	45.5
12,-1H	10	24	41.7
12,-1V	10	24	41.7
Fence-2H	10	27	37.0
Fence-2V	10	--	---
0,-2H	10	19	52.6
0,-2V	10	50	20.0
1,-2H	10	16	62.5
1,-2V	10	22	45.5
2,-2H	10	17	58.8
2,-2V	10	17	58.8
3,-2H	10	16	62.5
3,-2V	10	21	47.6
4,-2H	10	21	47.6
4,-2V	10	17	58.8
5,-2H	10	27	37.0
5,-2V	10	39	25.6
6,-2H	10	18	55.5
6,-2V	10	--	---
7,-2H	10	30	33.3
7,-2V	10	39	25.6
8,-2H	10	21	47.6
8,-2V	10	6	166.7
9,-2H	10	22	45.5
9,-2V	10	21	47.6
10,-2H	10	18	55.5
10,-2V	10	19	52.6
11,-2H	10	20	50.0
11,-2V	10	--	---
12,-2H	10	27	37.0
12,-2V	10	35	28.6
Fence-3H	10	19	52.6
Fence-3V	10	--	---
0,-3H	10	20	50.0
0,-3V	10	27	37.0
1,-3H	10	18	55.5
1,-3V	10	15	66.6
2,-3H	10	18	55.5
2,-3V	10	15	66.6
3,-3H	10	17	58.8

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3,-3V	10	11	90.9
4,-3H	10	18	55.5
4,-3V	10	18	55.5
5,-3H	10	27	37.0
5,-3V	10	30	33.3
6,-3H	10	20	50.0
6,-3V	10	--	---
7,-3H	10	30	33.3
7,-3V	10	43	23.3
8,-3H	10	23	43.5
8,-3V	10	40	25.0
9,-3H	10	21	47.6
9.-3V	10	21	47.6
10,-3H	10	19	52.6
10,-3V	10	17	58.8
11,-3H	10	17	58.8
11,-3V	10	5	200.0
12,-3H	10	25	40.0
12,-3V	10	23	43.5
Fence-4H	10	21	47.6
Fence-4V	10	--	---
0,-4H	10	19	52.6
0,-4V	10	24	41.7
1,-4H	10	16	62.5
1,-4V	10	14	71.4
2,-4H	10	15	66.6
2,-4V	10	4	250.0
3,-4H	10	16	62.5
3,-4V	10	16	62.5
4,-4H	10	17	58.8
4,-4V	10	16	62.5
5,-4H	10	21	47.6
5,-4V	10	28	35.7
6,-4H	10	17	58.8
6,-4V	10	--	---
7,-4H	10	29	34.5
7,-4V	10	44	22.7
8,-4H	10	24	41.7
8,-4V	10	46	21.7
9,-4H	10	21	47.6
9,-4V	10	22	45.5
10,-4H	10	19	52.6
10,-4V	10	18	55.5
11,-4H	10	17	58.8
11,-4V	10	4	250.0
12,-4H	10	23	43.5
12,-4V	10	23	43.5
Fence-5H	10	17.5	57.1
Fence-5V	10	--	---
0,-5H	10	22	45.5
0,-5V	10	35	28.6
1,-5H	10	20	50.0
1,-5V	10	16.5	60.6
2,-5H	10	21.5	46.5

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2,-5V	10	21	47.6
3,-5H	10	23	43.5
3,-5V	10	15.5	64.5
4,-5H	10	24	41.7
4,-5V	10	30	33.3
5,-5H	10	19	52.6
5,-5V	10	68	14.7
6,-5H	10	14	71.4
6,-5V	10	--	---
7,-5H	10	30	33.3
7,-5V	10	40	25.0
8,-5H	10	25	40.0
8,-5V	10	13	76.9
9,-5H	10	24.5	40.8
9,-5V	10	25.5	39.2
10,-5H	10	24	41.7
10,-5V	10	34	29.4
11,-5H	10	20	50.0
11,-5V	10	23	43.5
12,-5H	10	25.5	39.2
12,-5V	10	24	41.7
Fence-6H	10	35	28.6
Fence-6V	10	---	---
0,-6H	10	22.5	44.4
0,-6V	10	50	20.0
1,-6H	10	18	55.5
1,-6V	10	45	22.2
2,-6H	10	19	52.6
2,-6V	10	70	14.3
3,-6H	10	100	10.0
3,-6V	10	35	28.5
4,-6H	10	--	---
4,-6V	10	81	12.3
5,-6H	10	19	52.6
5,-6V	10	62	16.1
6,-6H	10	15	66.6
6,-6V	10	28	35.7
7,-6H	10	24	41.7
7,-6V	10	36	27.7
8,-6H	10	26.5	37.7
8,-6V	10	36	27.7
9,-6H	10	25	40.0
9,-6V	10	28	35.7
10,-6H	10	22	45.5
10,-6V	10	48	20.8
11,-6H	10	20	50.0
11,-6V	10	48	20.8
12,-6H	10	23.5	42.5
12,-6V	10	16.5	60.6
Fence-7H	10	30	33.3
Fence-7V	10	110	9.1
0,-7H	10	24	41.6
0,-7V	10	60	16.7
1,-7H	10	19	52.6

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1,-7V	10	47	21.3
2,-7H	10	18	55.5
2,-7V	10	21	47.6
3,-7H	10	18	55.5
3,-7V	10	27	37.0
4,-7H	10	17	58.8
4,-7V	10	25	40.0
5,-7H	10	16	62.5
5,-7V	10	23	43.5
6,-7H	10	16	62.5
6,-7V	10	21	47.6
7,-7H	10	19	52.6
7,-7V	10	19	26.3
8,-7H	10	25	40.0
8,-7V	10	55	18.2
9,-7H	10	25	40.0
9,-7V	10	34	29.4
10,-7H	10	23	43.5
10,-7V	10	30	33.3
11,-7H	10	22	45.5
11,-7V	10	23	43.5
12,-7H	10	28	35.7
12,-7V	10	--	---
Fence-8H	10	26	38.5
Fence-8V	10	52	19.2
0,-8H	10	25	50.0
0,-8V	10	30	33.3
1,-8H	10	24	41.7
1,-8V	10	22	45.5
2,-8H	10	22	45.5
2,-8V	10	22	45.5
3,-8H	10	21	47.6
3,-8V	10	20	50.0
4,-8H	10	22	45.5
4,-8V	10	19	52.6
5,-8H	10	17	58.8
5,-8V	10	20	50.0
6,-8H	10	20	50.0
6,-8V	10	8	125.0
7,-8H	10	18	55.5
7,-8V	10	38	26.3
8,-8H	10	115	8.7
8.-8V	10	78	12.8
9,-8H	10	64	15.6
9,-8V	10	58	17.2
10,-8H	10	38	26.3
10,-8V	10	--	---
11,-8H	10	26	38.5
11,-8V	10	30	33.3
12,-8H	10	32	31.3
12,-8V	10	--	---
0,-9H	10	20.5	48.8
0.-9V	10	26.5	37.7
1,-9H	10	22	45.5

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1,-9V	10	33	30.3
2,-9H	10	28	35.7
2,-9V	10	15.5	64.5
3.-9H	10	31	32.3
3,-9V	10	26.5	37.7
4,-9H	10	22.5	44.4
4,-9V	10	22.5	44.4
5,-9H	10	25	40.0
5,-9V	10	18.5	54.1
6,-9H	10	20	50.0
6,-9V	10	21.5	46.5
7,-9H	10	19	52.6
7,-9V	10	43	23.3
8,-9H	10	20	50.0
8,-9V	10	62.5	16.0
9,-9H	10	21.5	46.5
9,-9V	10	5.9	169.5
10,-9H	10	25	40.0
10,-9V	10	--	---
11,-9H	10	26.5	37.7
11,-9V	10	44	22.7
12,-9H	10	20.5	48.8
12,-9V	10	6	166.7
0,-11H	10	23.5	42.6
0,-11V	10	30	33.3
1,-11H	10	26	38.5
1,-11V	10	24	41.7
2,-11H	10	24	41.7
2,-11V	10	32	31.25
3,-11H	10	24	41.7
3,-11V	10	26	38.5
4,-11H	10	21	47.6
4,-11V	10	25	40.0
5,-11H	10	20	50.0
5,-11V	10	25	40.0
6,-11H	10	25	50.0
6,-11V	10	15	66.7
7,-11H	10	25	50.0
7,-11V	10	40	25.0
8,-11H	10	19	52.6
8,-11V	10	38	26.3
9,-11H	10	22	45.5
9,-11V	10	29	34.5
10,-11H	10	25	40.0
10,-11V	10	24	41.7
11,-11H	10	27	37.0
11,-11V	10	24	41.7
12,-11H	10	37	27.0
12,-11V	10	44	22.7
0,-13H	10	17	58.8
0,-13V	10	--	---
1,-13H	10	25	40.0
1,-13V	10	17	58.8
2,-13H	10	38	26.3

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2,-13V	10	2.1	476.2
3,-13H	10	67	14.9
3,-13V	10	2.7	370.4
4,-13H	10	33	30.3
4,-13V	10	26	38.5
5,-13H	10	38	26.3
5,-13V	10	18	55.6
6,-13H	10	42	23.8
6,-13V	10	25	40.0
7,-13H	10	24	41.7
7,-13V	10	50	20.0
8,-13H	10	22	45.4
8,-13V	10	34	29.4
9,-13H	10	20	50.0
9,-13V	10	29	34.5
10,-13H	10	21	47.6
10,-13V	10	19	52.6
11,-13H	10	24	41.7
11,-13V	10	26	38.5
12,-13H	10	30	33.3
12,-13V	10	28	35.7
Fence-13H	10	32	31.2
Fence-13V	10	0	---
Fence-15H	10	25.5	39.2
Fence-15V	10	--	---
0,-15H	10	15	66.7
0,-15V	10	--	---
1,-15H	10	14.5	69.0
1,-15V	10	--	---
2,-15H	10	21	47.6
2,-15V	10	18	55.6
3,-15H	10	21	47.6
3,-15V	10	12	83.3
4,-15H	10	22.5	44.4
4,-15V	10	25	40
5,-15H	10	25	40
5,-15V	10	20.5	48.8
6,-15H	10	22	45.5
6,-15V	10	22.5	44.4
7,-15H	10	22	45.5
7,-15V	10	57	17.5
8.-15H	10	19	52.6
8,-15V	10	49	20.4
9,-15H	10	18.5	54.1
9,-15V	10	20.5	48.8
10,-15H	10	16.5	60.6
10,-15V	10	19	52.6
11,-15H	10	17.5	57.1
11,-15V	10	25	40
12,-15H	10	14.5	69
12,-15V	10	--	---
Fence-17H	10	24	41.7
Fence-17V	10	73	13.7
0,-17H	10	17	58.8

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0,-17V	10	14	71.4
1,-17H	10	18	55.5
1,-17V	10	23	43.5
2,-17H	10	12	83.3
2,-17V	10	--	---
3,-17H	10	19	52.6
3,-17V	10	21.5	46.5
4,-17H	10	19	52.6
4,-17V	10	15	55.5
5,-17H	10	42	23.8
5,-17V	10	77	13.0
6,-17H	10	260	3.8
6,-17V	10	--	---
7,-17H	10	110	9.1
7,-17V	10	109	9.2
8,-17H	10	29	34.5
8,-17V	10	29	34.5
9,-17H	10	19.5	51.3
9,-17V	10	20	50.0
10,-17H	10	18	55.5
10,-17V	10	17	58.8
11,-17H	10	17.5	57.1
11,-17V	10	13	76.9
12,-17H	10	16.5	60.6
12,-17V	10	3.5	285.7
Fence-19H	10	20	50.0
Fence-19V	10	210	4.76
0,-19H	10	20	50.0
0,-19V	10	12	83.3
1,-19H	10	18	55.6
1,-19V	10	12	83.3
2,-19H	10	24	41.7
2,-19V	10	22	45.4
3,-19H	10	15	66.7
3,-19V	10	--	---
4,-19H	10	20	50.0
4,-19V	10	26	38.5
5,-19H	10	18	55.6
5,-19V	10	16	62.5
6,-19H	10	20	50.0
6,-19V	10	--	---
7,-19H	10	20	50.0
7,-19V	10	86	11.6
8,-19H	10	24	41.7
8,-19V	10	49	20.4
9,-19H	10	22	45.4
9,-19V	10	24	41.7
10,-19H	10	24	41.7
10,-19V	10	20	50.0
11,-19H	10	20	50.0
11,-19V	10	17	58.8
12,-19H	10	20	50.0
12,-19V	10	24	41.7
Fence-21H	10	32	31.25

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Fence-21V	10	110	9.1
0,-21H	10	22.5	44.4
0,-21V	10	27.5	36.4
1,-21H	10	19	52.6
1,-21V	10	12	83.3
2,-21H	10	20.5	48.8
2,-21V	10	13.5	74.1
3,-21H	10	27	37.0
3,-21V	10	5.4	185.0
4,-21H	10	16	62.5
4,-21V	10	--	---
5,-21H	10	21	47.6
5,-21V	10	30	33.3
6,-21H	10	18.5	54.1
6,-21V	10	--	---
7,-21H	10	28	35.7
7,-21V	10	175	5.7
8,-21H	10	27.5	36.4
8,-21V	10	200	5.0
9,-21H	10	20	50.0
9,-21V	10	28	35.7
10,-21H	10	23.5	42.6
10,-21V	10	19.5	51.3
11,-21H	10	24	41.7
11,-21V	10	25.5	39.2
12,-21H	10	20	50.0
12,-21V	10	24	41.7
Fence-23H	10	205	4.9
Fence-23V	10	---	---
0,-23H	10	61	16.4
0,-23V	10	57	17.5
1,-23H	10	13.5	74.1
1,-23V	10	27	37.0
2,-23H	10	14	71.4
2,-23V	10	44	22.7
3,-23H	10	36	27.8
3,-23V	10	190	5.3
4,-23H	10	180	5.6
4,-23V	10	--	---
5,-23H	10	5	200.0
5,-23V	10	230	4.3
6,-23H	10	28	35.7
6,-23V	10	260	3.8
7,-23H	10	60	16.7
7,-23V	10	235	4.3
8,-23H	10	21	47.6
8,-23V	10	64	15.6
9,-23H	10	19	52.6
9,-23V	10	115	8.7
10,-23H	10	20	50.0
10,-23V	10	100	10.0
11,-23H	10	21	47.6
11,-23V	10	25	40.0
12,-23H	10	22	45.5

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12,-23V	10	19	52.6
Fence-24H	10	205	4.9
Fence-24V	10	225	4.4
0,-24H	10	52	19.2
0,-24V	10	160	6.3
1,-24H	10	18	55.6
1,-24V	10	70	14.3
2,-24H	10	44	22.7
2,-24V	10	--	---
3,-24H	10	24	41.7
3,-24V	10	36	27.8
4,-24H	10	16	62.5
4,-24V	10	13	76.9
5,-24H	10	26	38.5
5,-24V	10	36	27.8
6,-24H	10	--	---
6,-24V	10	--	---
7,-24H	10	18.5	54.1
7,-24V	10	--	---
8,-24H	10	22	45.5
8,-24V	10	--	---
9,-24H	10	25	40.0
9,-24V	10	88	11.4
10,-24H	10	26	38.5
10,-24V	10	23	43.5
11,-24H	10	26	38.5
11,-24V	10	10	100.0
12,-24H	10	20	50.0
12,-24V	10	12	83.3
Fence-25H	10	17	58.8
Fence-25V	10	67	14.9
0,-25H	10	11	90.9
0,-25V	10	23	43.5
1,-25H	10	11	90.9
1,-25V	10	18	55.6
2,-25H	10	10.5	95.2
2,-25V	10	18.5	60.6
3,-25H	10	13	76.9
3,-25V	10	16.5	60.6
4,-25H	10	15	66.7
4,-25V	10	17	58.8
5,-25H	10	20	50.0
5,-25V	10	22.5	44.4
6,-25H	10	13	76.9
6,-25V	10	--	---
7,-25H	10	12	83.3
7,-25V	10	--	---
8,-25H	10	20	50.0
8,-25V	10	14	71.4
9,-25H	10	23	43.5
9,-25V	10	90	11.1
10,-25H	10	38	26.3
10,-25V	10	3.8	263.2
11,-25H	10	21	47.6

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11,-25V	10	28	35.7
12,-25H	10	20	50.0
12,-25V	10	17.5	57.1
Fence-26H	10	15	66.7
Fence-26V	10	48	20.8
0,-26H	10	12	83.3
0,-26V	10	16	62.5
1,-26H	10	10	100
1,-26V	10	17	58.8
2,-26H	10	12	83.3
2,-26V	10	17	58.8
3,-26H	10	13	76.9
3,-26V	10	1.5	666.7
4,-26H	10	45	22.2
4,-26V	10	--	---
5,-26H	10	18	55.6
5,-26V	10	27	37.0
6,-26H	10	16	62.5
6,-26V	10	--	---
7,-26H	10	21	47.6
7,-26V	10	102	9.8
8,-26H	10	150	6.7
8,-26V	10	205	4.9
9,-26H	10	39	25.6
9,-26V	10	--	---
10,-26H	10	21	47.6
10,-26V	10	70	14.3
11,-26H	10	19	52.6
11,-26V	10	--	---
12,-26H	10	22	45.5
12,-26V	10	19	52.6
Fence-27H	10	20	50.0
Fence-27V	10	43	23.3
0,-27H	10	21	47.6
0,-27V	10	19	52.6
1,-27H	10	42	23.8
1,-27V	10	28	35.7
2,-27H	10	34	29.4
2,-27V	10	32	31.3
3,-27H	10	15	66.7
3,-27V	10	25	40.0
4,-27H	10	125	8.0
4,-27V	10	--	---
5,-27H	10	31	32.3
5,-27V	10	67	14.9
6,-27H	10	23	43.5
6,-27V	10	--	---
7,-27H	10	--	---
7,-27V	10	--	---
8,-27H	10	21	47.6
8,-27V	10	--	---
9,-27H	10	35	28.6
9,-27V	10	62	16.1
10,-27H	10	22	45.5

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10,-27V	10	100	10.0
11,-27H	10	25	40.0
11,-27V	10	27	37.0
12,-27H	10	23	43.5
12,-27V	10	19	52.6
BG1H	10	34	29.4
BG1V	10	30	33.3
BG2H	10	35	28.6
BG2V	10	30	33.3
BG3H	10	37	27.0
BG3V	10	28	35.7
BG4H	10	38	26.3
BG4V	10	27	37.0
BG5H	10	32	31.3
BG5V	10	25	40.0
BG6H	10	28	35.7
BG6V	10	22	45.5
BG7H	10	28	35.7
BG7V	10	25	40.0
BG8H	10	42	23.8
BG8V	10	37	27.0
BG9H	10	30	33.3
BG9V	10	28	35.7
BG10H	10	35	28.6
BG10V	10	30	33.3

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2. ELEVATION SURVEY DATA

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ARCO SURVEY 1/26/87

BM = 773.60

Station	(+)	x	(-)	Difference	Elevation
1,A (BM)	4.92	4.35	3.79	4.355	
1,B	22.73	21.23	19.75	21.24	756.72
2,B	2.90	2.14	1.37	2.135	756.72
2,C(MW3-TOC)	4.02	3.34	2.66	3.34	755.52
2,C(MW3-TOP)	5.85	5.17	4.49	5.17	753.69
2,D	2.74	1.94	1.13	1.935	756.92
3,D	22.82	21.37	19.90	21.36	
3,A (BM)	5.26	4.70	4.13	4.695	773.59
4,C(MW3-TOP)	5.63	3.62	1.66	3.645	773.69
4,E(MW2-TOC)	4.19	2.95	1.69	2.94	754.36
5,E(MW2-TOC)	7.37	5.75	4.15	5.76	754.36
5,E(MW2-TOP)	8.90	8.09	6.48	8.105	752.02
5,F(MW1-TOC)	9.73	4.68	0.48	4.69	755.43
5,F(MW1-TOP)	10.76	6.56	2.34	6.55	753.55
5,F(MW1-TOP)	10.81	6.44	2.10	6.455	753.67

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3. WELL INFORMATION

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WELL INFORMATION
FOR ARCO/SINCLAIR/DYMON

WELL ALIAS	DATE	SWL	TOC	TD	SC/INV	TOC ELE	GEL
MW1	11-3-86	22.13'	2.0	26.33'	16.33'-26.33'	755.43	753.55
	11-4-86	22.44'					
MW2	11-3-86	21.52'	2.33'	27.58'	17.58'-27.58'	754.36	752.02
	11-4-86	21.83'					
MW3	11-3-86	23.13'	1.97'	75.00'	15'-30'	755.52	753.69
	11-4-86	24.29'			70'-75'		

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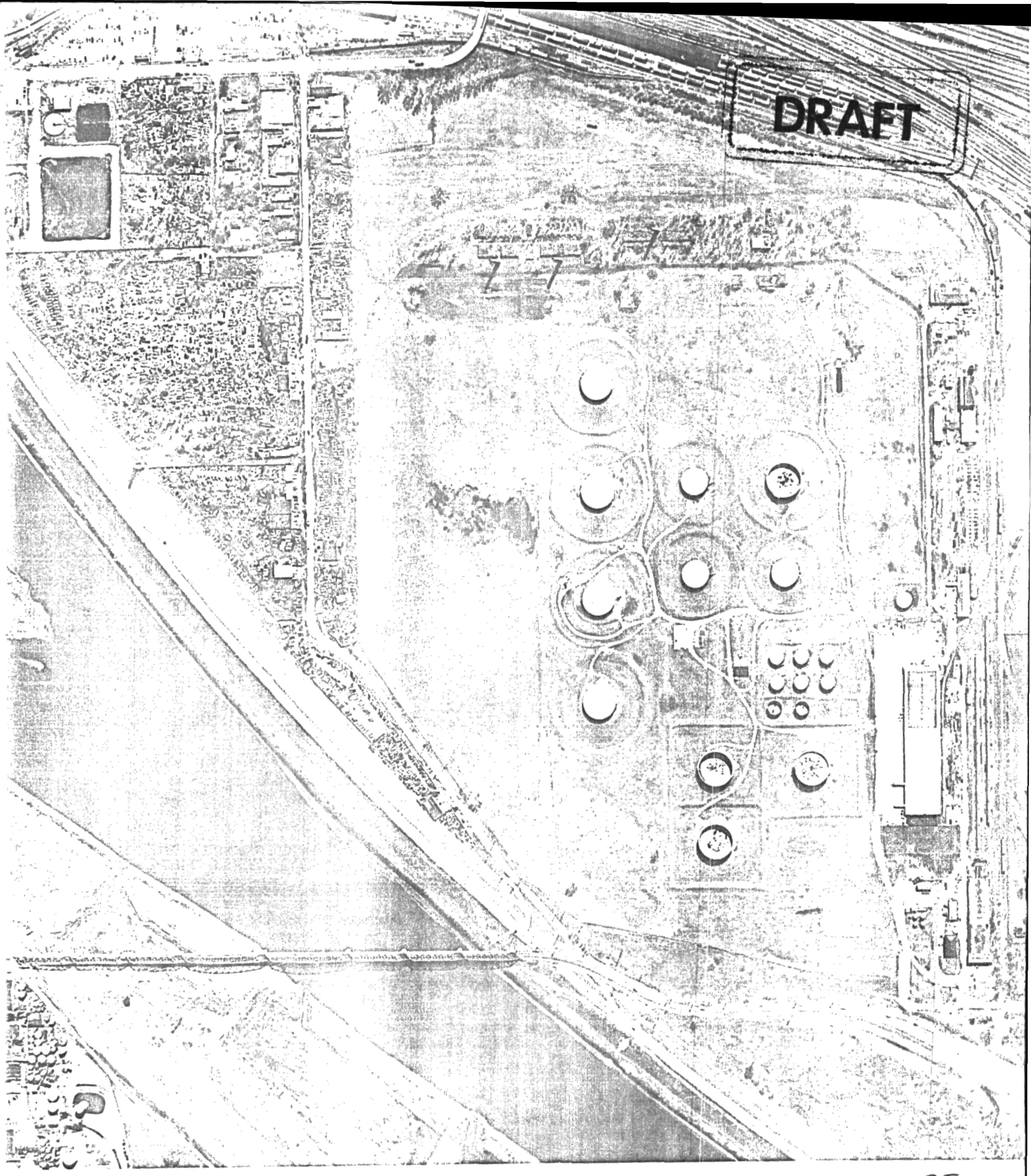
4. AERIAL PHOTOGRAPHS



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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

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GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701659CC
REPORT DATE: 12-16-86

SAMPLE IDENTIFICATION NUMBER: 00C0SWAW201125E003
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC-SINCLAIR - SW1 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 5-86
TIME: 1430

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	100
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	100
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	100
HEXACHLOROBUTADIENE	NOT DETECTED	100
1,2,4-TRICHLOROBENZENE	NOT DETECTED	100
NAPTHALENE	NOT DETECTED	100
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	100
2-CHLORONAPHTHALENE	NOT DETECTED	100
ACENAPHTHYLENE	NOT DETECTED	100
ACENAPHTHENE	NOT DETECTED	100
DIMETHYL PHTHALATE	NOT DETECTED	100
2,6-DINITROTOLUENE	NOT DETECTED	100
FLUORENE	NOT DETECTED	100
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	100
2,4-DINITROTOLUENE	NOT DETECTED	100
DIETHYL PHTHALATE	NOT DETECTED	100
HEXACHLOROBENZENE	NOT DETECTED	100
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	100
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	100
DI-N-BUTYL PHTHALATE	NOT DETECTED	100
FLUORANTHENE	NOT DETECTED	100
PYRENE	NOT DETECTED	100
BUTYL BENZYL PHTHALATE	NOT DETECTED	100
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	100
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	100
DI-N-OCTYL PHTHALATE	NOT DETECTED	100
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	100
BENZO(A)PYRENE	NOT DETECTED	100
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	100
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	100
BENZO(G,H,I)PERYLENE	NOT DETECTED	100

COMMENT: A LARGE QUANTITY OF BUTYL CELLOSOLVE AND NUMEROUS HYDROCARBONS INDICATIVE OF BOTH LOW AND HIGH MOLECULAR WEIGHT PETROLEUM FRACTIONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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DEC 18 1986

BUREAU OF ENVIRONMENTAL REMEDIATION

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

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PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016580C
REPORT DATE: 12-11-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E003 SAMPLE TYPE: WATER
COLLECTION SITE: ARCO-SINCLAIR - SW1 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1430

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.62
ALPHA BHC	NOT DETECTED	15
BETA BHC	NOT DETECTED	15
DELTA BHC	NOT DETECTED	15
GAMMA BHC	NOT DETECTED	15
CHLORDANE	NOT DETECTED	31
P,P' DDD	NOT DETECTED	5.0
P,P' DDE	NOT DETECTED	2.5
P,P' DDT	NOT DETECTED	2.5
DIELDRIN	NOT DETECTED	31
ENDOSULFAN I	NOT DETECTED	2.5
ENDOSULFAN II	NOT DETECTED	2.5
ENDOSULFAN SULFATE	NOT DETECTED	2.5
ENDRIN	NOT DETECTED	12
HEPTACHLOR	NOT DETECTED	12
HEPTACHLOR EPOXIDE	NOT DETECTED	2.5
TOXAPHENE	NOT DETECTED	250
PCB-1016	NOT DETECTED	310
PCB-1221	NOT DETECTED	310
PCB-1232	NOT DETECTED	310
PCB-1242	NOT DETECTED	310
PCB-1248	NOT DETECTED	310
PCB-1254	NOT DETECTED	62
PCB-1260	NOT DETECTED	62
METHOXYCHLOR	140	

COMMENT: METHOXYCHLOR IS NOT A PRIORITY POLLUTANT PESTICIDE. IT IS, HOWEVER, AN EP TOX PESTICIDE.

ANALYST: DENNIS L. DOBSON

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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BUREAU OF
ENVIRONMENTAL
REMEDIATION

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to: Division of Environment

Mail Samples to: Environmental Laboratories

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SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

2 bottles - SW1

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-Sinclair SW1 COLLECTION DEPTH 0.0 FEET/METERS

Address KC, KAN County WY

SITE - SAMPLE IDENTIFICATION NUMBER __-__-SW-NW-20-11-25E-003
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean/Roth DATE 11-05-86 (MO DAY YR) TIME 1430 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Trihalomethanes
- ☐ EP Toxicity - Pesticides
- ☐ Other _____
- ☐ Routine Pesticides
- ☐ PCB'S
- ☒ PP Pesticides
- ☒ PP Volatiles
- ☒ PP Acids
- ☒ PP Base Neutrals

Comments 2 Bottles one for VOCs and one for Pesticides, Acid and Base. Both Bottles are SW1

CHAIN OF CUSTODY

Date 11/6 Received From Rick Bean Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. Roth Address BER

Name D. Brinkley Address NEDO

Name _____ Address _____

RECEIVED

NOV 14 1986

BUREAU ENVIRONMENTAL REMEDIATION

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016460C
REPORT DATE: 11-12-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW20112SE003 SAMPLE TYPE: WATER
COLLECTION SITE: ARCO-SINCLAIR - SW1 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/RCTH DATE: 11- 5-86 TIME: 1430

RESULTS OF ANALYSIS

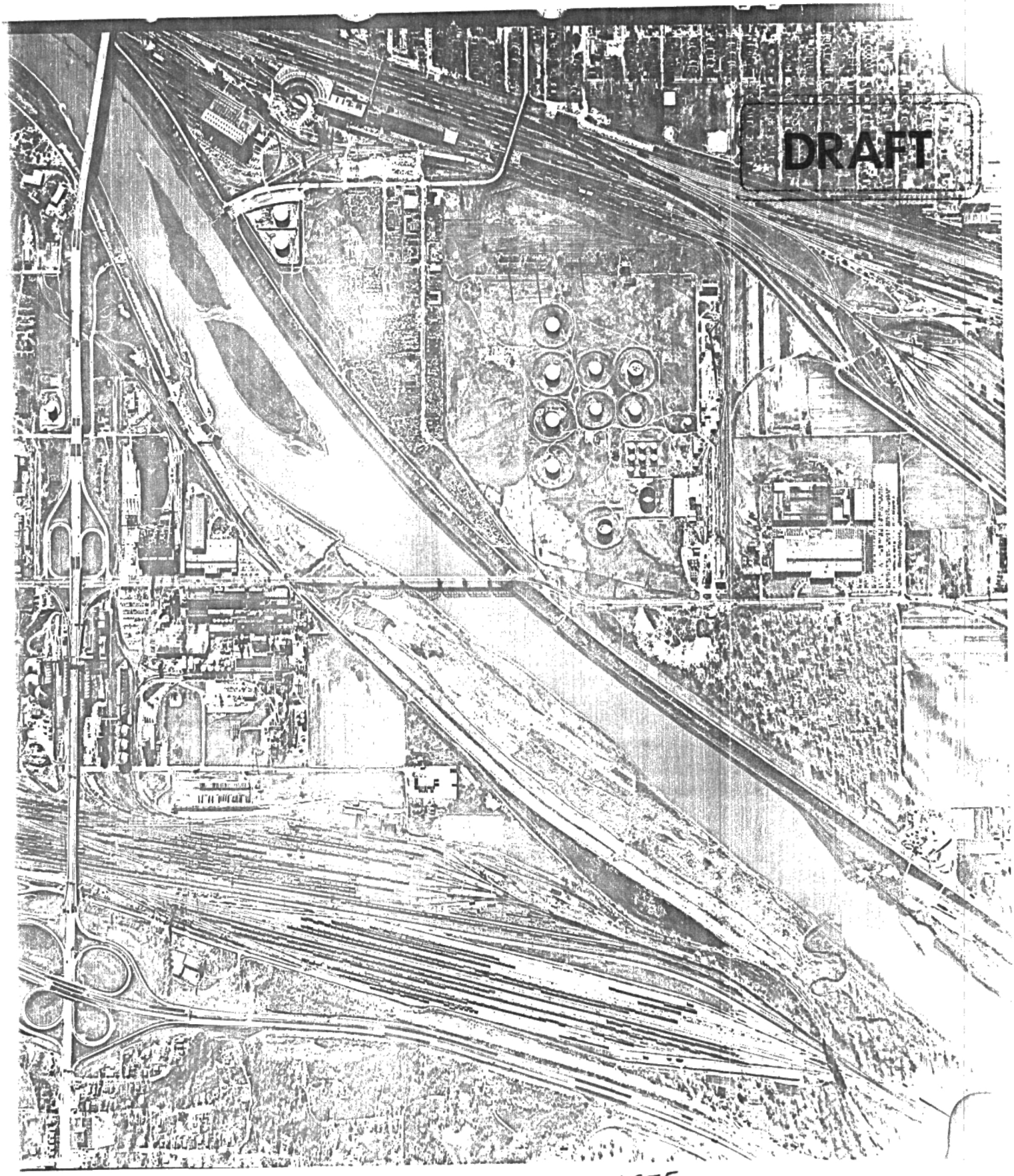
PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	500
BROMOMETHANE	NOT DETECTED	120
VINYL CHLORIDE	NOT DETECTED	80
CHLOROETHANE	NOT DETECTED	370
DICHLOROMETHANE	1070000	90
1,1-DICHLOROETHYLENE	NOT DETECTED	60
1,1-DICHLOROETHANE	90.4	50
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	73.2	50
TRICHLOROMETHANE (THM)	732	50
1,2-DICHLOROETHANE	NOT DETECTED	60
1,1,1-TRICHLOROETHANE	11750	70
TETRACHLOROMETHANE	NOT DETECTED	70
BROMODICHLOROMETHANE (THM)	NOT DETECTED	50
1,2-DICHLOROPROPANE	NOT DETECTED	40
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	80
TRICHLOROETHYLENE	1590	60
BENZENE	NOT DETECTED	40
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	70
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	90
1,1,2-TRICHLOROETHANE	NOT DETECTED	60
BROMOFORM (THM)	NOT DETECTED	150
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	60
TETRACHLOROETHYLENE	26600	110
TOLUENE	9980	40
CHLOROBENZENE	NOT DETECTED	40
ETHYLBENZENE	NOT DETECTED	70
META-XYLENE	241	60
ORTHO &/OR PARA-XYLENE	229	60
1,3-DICHLOROBENZENE	NOT DETECTED	100
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	100

COMMENT: 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE WAS ALSO PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY RCTH, FORBES BLDG 321



1975

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5. POPULATION

CHARACTERISTICS OF THE POPULATION

Number of Inhabitants

KANSAS

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U.S. Department of Commerce

Table 4. **Population of County Subdivisions: 1960 to 1980**—Con.

[Total population of a place in two or more county subdivisions appears in table 5. Counts relate to county subdivisions and places as defined at each census. For meaning of symbols, see Introduction]

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County Subdivisions	1980	1970	1960
Thomas County—Con			
Wendell township	114	118	160
West Hale township	410	402	405
Brewster city	327	320	317
Trego County[88]	4 165	4 436	5 473
Collyer township	523	596	814
Collyer city	151	182	233
Franklin township	130	182	205
Glencoe township	94	113	168
Ogallah township	288	326	451
Riverside township	196	265	314
Wa Keeney township	2 792	2 798	3 313
Wa Keeney city[88]	2 388	2 334	2 808
Wilcox township	142	156	208
Wabaunsee County[89]	6 867	6 397	6 648
Alma township	1 201	1 161	1 139
Alma city[89]	925	905	838
Farmer township	118	175	158
Garfield township	619	606	610
Alta Vista city[89]	430	402	400
Kaw township	257	225	254
Maple Hill township	777	607	551
Maple Hill city	381	327	244
Willard city (pt.)[89]	5	...	...
Mill Creek township	311	189	154
Mission Creek township	453	412	397
Newbury township	941	877	995
Menoken city[89]	242	209	256
Paxico city	168	216	276
Plumb township	654	599	611
Harveyville city[89]	280	279	204
Rock Creek township	113	155	225
Wabaunsee township	455	461	563
Washington township	114	145	184
Wilmington township	854	835	807
Eskridge city	603	589	519
Wallace County[90]	2 045	2 215	2 069
Harrison township	114	140	141
Morton township	73	78	68
North township	12	12	23
Sharon Springs township	1 264	1 321	1 198
Sharon Springs city[90]	982	1 012	966
Wallace township	218	280	302
Wallace city	86	112	110
Weskan township	364	384	337
Washington County[91]	8 543	9 249	10 739
Barnes township	394	351	479
Barnes city[91]	257	209	247
Brantford township	129	148	219
Charleston township	129	176	257
Clifton township	567	589	646
Clifton city (pt.)[91]	371	359	368
Vining city (pt.)	30	36	46
Coleman township	104	133	190
Farmington township	216	268	283
Franklin township	231	266	350
Hollenberg city[91]	57	47	55
Grant township	55	109	138
Greenleaf township	585	600	772
Greenleaf city[91]	462	448	562
Haddam township	385	477	521
Haddam city	239	289	311
Hanover township	1 071	1 073	1 068
Hanover city[91]	802	793	773
Highland township	80	92	114
Independence township	229	294	348
Kimeo township	124	138	180
Lincoln township	130	178	237
Linn township	686	643	739
Linn city[91]	483	388	466
Little Blue township	152	169	241
Logan township	168	171	202
Lowe township	120	132	199
Mill Creek township	333	397	464
Morrowville city[91]	180	201	195
Sheridan township	160	186	233
Sherman township	342	382	429
Palmer city	149	166	169
Strawberry township	227	230	318
Union township	192	208	333
Mahaska city[91]	119	122	160
Washington city[91]	1 488	1 584	1 506
Washington township[91]	246	255	273
Wichita County[92]	3 041	3 274	2 765
Leoti township[92]	3 041	2 360	1 837
Leoti city[92]	1 869	1 916	1 401
Wilson County[93]	12 128	11 317	13 077
Cedar township	862	717	780
Altoona city[93]	564	475	490
Center township[93]	684	649	763
Chetopa township	230	238	322
Clifton township	541	468	634
Buffalo city	386	321	422
Colfax township	525	402	388
Duck Creek township	131	126	191
Fall River township	392	384	507

County Subdivisions	1980	1970	1960
Wilson County—Con			
Fall River township—Con			
New Albany city	78	59	104
Fredonia city[93]	3 047	3 080	3 233
Guilford township	236	218	294
Benedict city	111	91	128
Neodesha city[93]	3 414	3 295	3 594
Neodesha township[93]	700	587	772
Newark township	235	218	294
Pleasant Valley township	243	216	312
Prairie township	113	162	225
Talleyrand township	273	243	314
Verdigris township	427	256	329
Coyville city	98	93	133
Webster township	75	58	125
Woodson County[94]	4 600	4 789	5 423
Belmont township	135	124	154
Center township[94]	309	391	405
Eminence township	149	158	229
Everett township	174	178	237
Liberty township	205	223	277
Neosho Falls township	365	490	559
Neosho Falls city	157	184	222
North township	123	117	15[illegible]
Owl Creek township	253	258	37[illegible]
Perry township	147	150	187
Toronto township	742	733	78[illegible]
Toronto city	466	431	52[illegible]
Yates Center city[94]	1 996	1 967	2 080
Wyandotte County[95]	172 335	186 845	185 495
Bonner Springs city[95]	6 765	3 884	3 17[illegible]
Delaware township[95]	153	3 550	3 84[illegible]
Edwardsville city[95]	3 364	619	513
Kansas City city[95]	161 087	168 213	121 901
Lake Quivira city (pt.)[95]	53	...	..
Prairie township[95]	1 345	1 934	2 056
Shawnee township[95]	61	1 810	21 861

NOTE: The county subdivisions in this State ar minor civil divisions (MCD's) which are townships exce, for one county which has unorganized territories; see t text for additional information.

[1]ALLEN COUNTY. Part of Humboldt township was annex to Humboldt city. Part of Iola township was annexed to Io city. Part of Elm township was annexed to La Harpe city Annexations were also made by Bassett, Elsmore, Gas, and Mor cities. Area was detached by Gas city.

[2]ANDERSON COUNTY. Parts of Jackson and Monroe tow ships were annexed to Garnett city. Annexations were al made by Colony and Greeley cities.

[3]ATCHISON COUNTY. Part of Shannon township was annex to Atchison city.

[4]BARBER COUNTY. Annexations were made by Hardne Kiowa, Medicine Lodge, and Sharon cities. Cedar and Hazelt townships consolidated and were designated as Hazelton townsh (1970 population: 302).

[5]BARTON COUNTY. Part of Lakin township was annex to Ellinwood city. Parts of Buffalo and Great Bend tow ships were annexed to Great Bend city. Part of North Hom stead township was annexed to Holsington city.

[6]BOURBON COUNTY. Part of Scott township was annex to Fort Scott city. Annexations were also made by Uniont city.

[7]BROWN COUNTY. Sabetha city annexed into Brown Count the areas annexed were parts of Morrill and Walnut townsh Part of Hiawatha township was annexed to Hiawatha city. Par of Mission township was annexed to Horton city. Annexatio were made by Robinson city.

[8]BUTLER COUNTY. Area was annexed from and detach to Augusta township by Augusta city. Parts of El Dorado a Prospect townships were annexed to El Dorado city. Annexatio were made by Andover, Benton, Douglass, Latham, Leon, Ro Hill, Towanda, and Whitewater cities. The boundary betwe Prospect and El Dorado townships was changed.

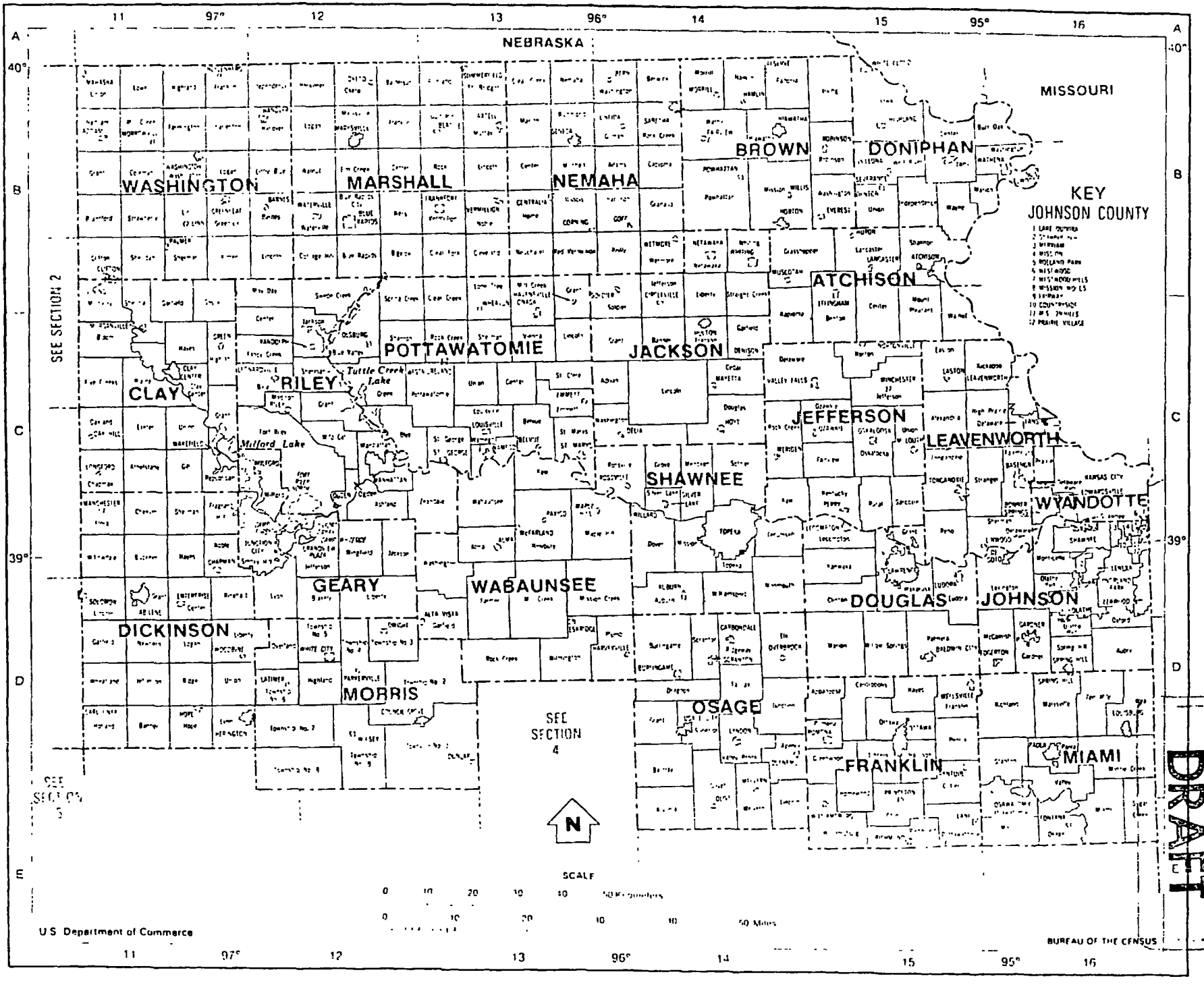
[9]CHASE COUNTY. Annexations were made by Strong C city.

[10]CHAUTAUQUA COUNTY. Annexations were made by Ced Vale and Sedan cities.

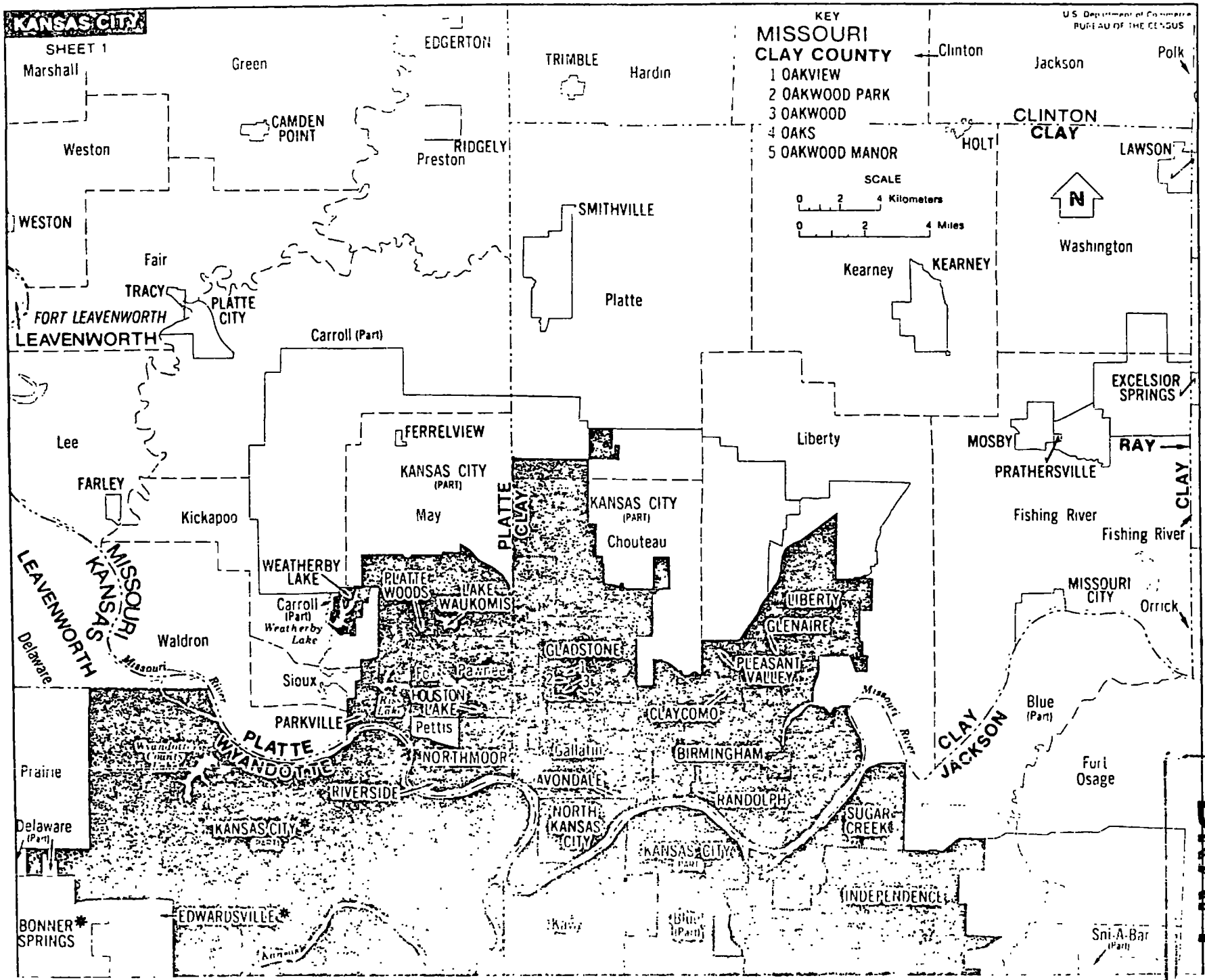
[11]CHEROKEE COUNTY. Part of Spring Valley townsh was annexed to Baxter Springs city. Part of Salamanca tow ship was annexed to Columbus city. Part of Garden townsh was annexed to Galena city. Part of Cherokee township w annexed to Weir city.

[12]CHEYENNE COUNTY. Alexander, Beaver, Bird City, Ever green, Jefferson, and part of Porter townships consolidat and were designated as Bird City township (combined 19 population: 1,193). Calhoun and part of Porter townsh consolidated and were designated as Calhoun township (19 population: 147). Dent, Eureka, Lawn Ridge, Nutty Com

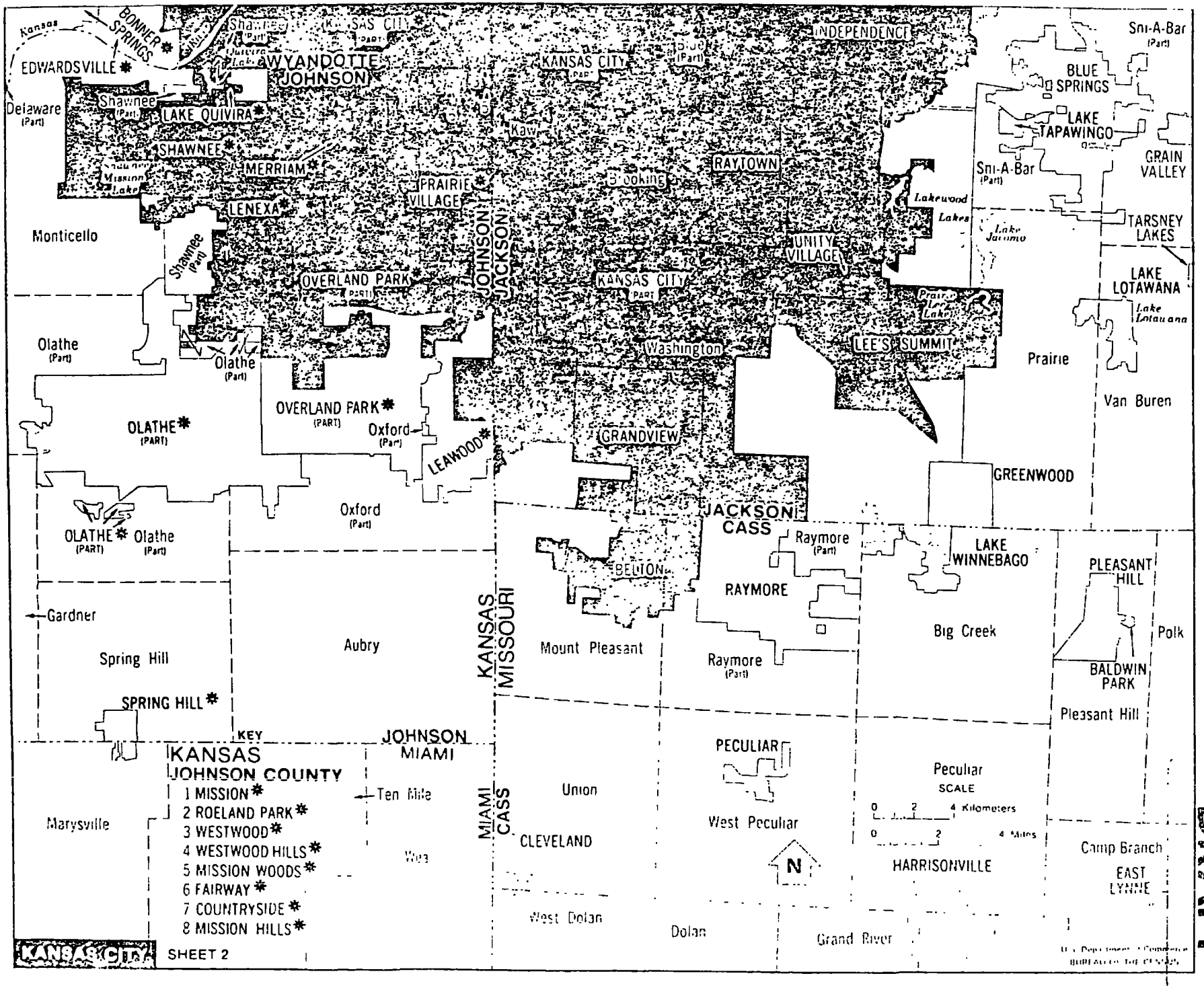
Counties, County Subdivisions (Townships, Unorganized Territories), and Places—Section 3



Urbanized Areas



Urbanized Areas



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6. PRECIPITATION

DRAFT

PRECIPITATION FOR KANSAS CITY, KANSAS IN 1986

MONTH	ACCUMULATIVE RAINFALL IN INCHES
January	0.02
February	0.77
March	1.08
April	1.50
May	3.78
June	3.13
July	6.43
August	2.20
September	9.57
October	2.51
November	0.92
December	1.21
Total Precipitation for 1986	51.80

Mean annual precipitation 36.32

* Taken from National Climatic Data Center.

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7. LAB ANALYSIS

ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address Bldg 321 BER

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (QEG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO MW1 COLLECTION DEPTH 29 - 3 FEET/METERS

Address Kansas City Ks County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 00 NW-SE-NW-20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR SLADE / ROTH DATE 01-28-87 (MO DAY YR) TIME 1016 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics ☐ Routine Pesticides ☐ PP Volatiles

☐ Trihalomethanes ☐ PCB'S ☐ PP Acids

☐ EP Toxicity - Pesticides ☒ PP Pesticides ☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 1/29 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Mike Parhomek Address NSPO

Name _____ Address _____

7/86

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

SEND REPORT TO Rick Bean

Address BER #321

COLLECTION SITE ARCO - MW1 COLLECTION DEPTH 23-Ø FEET/METERS

Address KC, KAN COUNTY WY

SITE OR SAMPLE IDENTIFICATION NUMBER: ØØ-NW-SE-NW-2Ø-1L-25E-___
1/4 1/4 1/4 1/4 S T R

SAMPLE COLLECTOR Bean/Roth DATE 11-04-86 (MO DAY YR) TIME 1310 (24 HOUR)

BOTTLE NOS.: CHEM MW1 DO ____ NUT ____ HM 712 CN ____ O & G ____ PHENOL ____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT/SLUDGE ☐ AIR ☐ OIL/GREASE ☐ SOLID ☐ LIQUID

ANALYSIS REQUESTED:

- ☐ Heavy Metals
- ☐ EP Toxicity (Soil and Solid Samples)
- ☐ Partial Mineral
- ☐ Partial Mineral Plus Heavy Metals
- ☐ Complete Mineral
- ☒ Complete Mineral Plus Heavy Metals
- ☐ Other _____

Comments About Samples _____

CHAIN OF CUSTODY:

Date _____ Received From _____ Received by _____

Date _____ Received From _____ Received by _____

ADDITIONAL REPORTS ROUTED TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BER

Name _____ Address _____

SR 2/86

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-MW1 COLLECTION DEPTH 23.0 FEET/METERS

Address KC, Kan County Wy

SITE - SAMPLE IDENTIFICATION NUMBER ØØ-NW-SE-NW-2Ø-1L-25E-___
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean/Roth DATE 11-04-86 (MO DAY YR) TIME 1305 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☒ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☒ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BER #321

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016340C
REPORT DATE: 12- 5-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00NWSENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - MW1 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1305

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	2.0
2-NITROPHENOL	NOT DETECTED	2.0
PHENOL	NOT DETECTED	2.0
2,4-DIMETHYLPHENOL	NOT DETECTED	2.0
2,4-DICHLOROPHENOL	NOT DETECTED	2.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	2.0
4-CHLORO-M-CRESOL	NOT DETECTED	2.0
2,4-DINITROPHENOL	NOT DETECTED	50.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	10.0
PENTACHLOROPHENOL	NOT DETECTED	10.0
4-NITROPHENOL	NOT DETECTED	10.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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REMEDIATION

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016330C
REPORT DATE: 12- 5-86

SAMPLE IDENTIFICATION NUMBER: 00NWSENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - MW1 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1305

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	10
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	10
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	10
HEXACHLOROBUTADIENE	NOT DETECTED	10
1,2,4-TRICHLOROBENZENE	NOT DETECTED	10
NAPTHALENE	NOT DETECTED	10
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	10
2-CHLORONAPHTHALENE	NOT DETECTED	10
ACENAPHTHYLENE	NOT DETECTED	10
ACENAPHTHENE	NOT DETECTED	10
DIMETHYL PHTHALATE	NOT DETECTED	10
2,6-DINITROTOLUENE	NOT DETECTED	10
FLUORENE	NOT DETECTED	10
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	10
2,4-DINITROTOLUENE	NOT DETECTED	10
DIETHYL PHTHALATE	NOT DETECTED	10
HEXACHLOROBENZENE	NOT DETECTED	10
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	10
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	10
DI-N-BUTYL PHTHALATE	NOT DETECTED	10
FLUORANTHENE	NOT DETECTED	10
PYRENE	NOT DETECTED	10
BUTYL BENZYL PHTHALATE	NOT DETECTED	10
BIS(2-ETHYLHEXYL) PHTHALATE	150	10
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	10
DI-N-OCTYL PHTHALATE	32.2	10
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	10
BENZO(A)PYRENE	NOT DETECTED	10
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	10
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	10
BENZO(G,H,I)PERYLENE	NOT DETECTED	10

COMMENT: A LARGE QUANTITY OF BIS(2-ETHYLHEXYL)ADIPATE, A PLASTIZER, WAS INDICATED IN THIS SAMPLE ALONG WITH NUMEROUS NON-PRIORITY POLLUTANT PHTHALATES AND A FEW TRACE HYDROCARBONS.

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DEC - 8 1986
BUREAU OF ENVIRONMENTAL REMEDIATION

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024110C
REPORT DATE: 2- 6-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00NWSENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO MW1, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/ROTH
DATE: 1-23-87
TIME: 1015

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.025
ALPHA BHC	NOT DETECTED	0.025
BETA BHC	NOT DETECTED	0.050
DELTA BHC	NOT DETECTED	0.050
GAMMA BHC	NOT DETECTED	0.025
CHLORDANE	NOT DETECTED	0.25
P,P' DDD	NOT DETECTED	0.040
P,P' DDE	NOT DETECTED	0.020
P,P' DDT	NOT DETECTED	0.10
DIELDRIN	NOT DETECTED	0.050
ENDOSULFAN I	NOT DETECTED	0.020
ENDOSULFAN II	NOT DETECTED	0.020
ENDOSULFAN SULFATE	NOT DETECTED	0.10
ENDRIN	NOT DETECTED	0.10
HEPTACHLOR	NOT DETECTED	0.020
HEPTACHLOR EPOXIDE	NOT DETECTED	0.020
TOXAPHENE	NOT DETECTED	2.0
PCB-1016	NOT DETECTED	0.50
PCB-1221	NOT DETECTED	2.5
PCB-1232	NOT DETECTED	2.5
PCB-1242	NOT DETECTED	1.3
PCB-1248	NOT DETECTED	0.50
PCB-1254	NOT DETECTED	0.50
PCB-1260	NOT DETECTED	0.50

ANALYST: DENNIS L. DOBSON DLD

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 70162700
REPORT DATE: 11-13-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00NWSENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW1 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1305

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.8
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	NOT DETECTED	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.8
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	NOT DETECTED	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	NOT DETECTED	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

ANALYST: RICHARD L. PIERCE RLP

ROGER [illegible], DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-8420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: RICK BEAN
ADDRESS: BER 3.1

LAB NUMBER: 701085PT
ACCOUNT CODE: DFG
MATRIX: WATER

LOCALITY: ARCO-MW1, KANSAS CITY, KS

TIME COLLECTED: 1310

COLLECTED BY: BEAN/ROTH

DATE COLLECTED: 11- 4-86

SAMPLE ID: DONWSENW2011252

DATE-RECEIVED: 11- 5-86

COMMENTS:

DATE REPORTED: 11-19-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/LITER

TOTAL HARD. (CACO3)	620	PH	7.6	IRON	2.41
		TURBIDITY	77.0	MANGANESE	0.66
CALCIUM	220.5	SPECIFIC COND.	1327	ARSENIC	0.014
MAGNESIUM	17.0	T. DISSOLVED SOLIDS	747	BARIUM	0.10
SODIUM	37.5	TOTAL PHOSPHORUS (P)	0.19	CADMIUM	ND
POTASSIUM	15.7	SILICA (SIO2)	29.4	CHROMIUM	ND
		BORON	NA	COPPER	ND
TOTAL ALK. (CACO3)	452	DISSOLVED OXYGEN	NA	LEAD	0.003
		BOD	NA	MERCURY	ND
CHLORIDE	19.0	COD	NA	SELENIUM	ND
SULFATE	170	AMMONIA (N)	NA	SILVER	0.012
NITRATE (N)	ND	T. SUS. SOLIDS	NA	ZINC	0.12
FLUORIDE	0.27			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	462.0	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	158.0	ANTIMONY	NA
PHENOLS	NA	NAPCOD ALKALINITY	0	THALLIUM	NA
TDS	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD

NA - NOT ANALYZED

ND - NOT DETECTED

* *

COPY TO: FILE
DWIGHT BRINKLEY, NEDO
EMILY ROTH

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BUREAU OF
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REMEDIATION

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

DRAFT

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO MW2 COLLECTION DEPTH 22 - 0 FEET/METERS

Address KC, Kan County WY

SITE - SAMPLE IDENTIFICATION NUMBER ØØ-SE-SE-NW-2Ø-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-04-86 (MO DAY YR) TIME 1416 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Trihalomethanes
- ☐ EP Toxicity - Pesticides
- ☐ Routine Pesticides
- ☐ PCB'S
- ☐ PP Pesticides
- ☒ PP Volatiles
- ☒ PP Acids
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BER

Name _____ Address _____

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

SEND REPORT TO Rick Bean

Address Ber 321

COLLECTION SITE ARCO MW2 COLLECTION DEPTH 22.0 FEET/METERS

Address KC, Kan COUNTY WY

SITE OR SAMPLE IDENTIFICATION NUMBER: 00-SE-SE-NW-20-11-25E-
(1/4 1/4 1/4 1/4 S T R)

SAMPLE COLLECTOR Bean/Roth DATE 11-04-86 (MO DAY YR) TIME 1421 (24 HOUR)

BOTTLE NOS.: CHEM MW2 DO ____ NUT ____ HM 234 CN ____ O & G ____ PHENOL ____

SAMPLE DESCRIPTION: [X] WATER [ ] SOIL [ ] SEDIMENT/SLUDGE [ ] AIR [ ] OIL/GREASE [ ] SOLID [ ] LIQUID

ANALYSIS REQUESTED:

- [ ] Heavy Metals
- [ ] EP Toxicity (Soil and Solid Samples)
- [ ] Partial Mineral
- [ ] Partial Mineral Plus Heavy Metals
- [ ] Complete Mineral
- [X] Complete Mineral Plus Heavy Metals
- [ ] Other _____

Comments About Samples _____

CHAIN OF CUSTODY:

Date _____ Received From _____ Received by _____

Date _____ Received From _____ Received by _____

ADDITIONAL REPORTS ROUTED TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BER

Name _____ Address _____

SR 2/86

ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address Bldg 321 BER

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO MW2 COLLECTION DEPTH 29.5 FEET/METERS

Address Kansas City, Ks County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 00-SE-SE-NW-30-11-25E-
¼ ¼ ¼ ¼ S T R

SAMPLE COLLECTOR SLADE/ROTH DATE 01-28-87 TIME 1004
MO DAY YR 24 HOUR

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☐ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☐ PP Acids
☐ EP Toxicity - Pesticides	☒ PP Pesticides	☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 1/28 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address 321 BER

Name Mike Parhomelk Address NEDO

Name _____ Address _____

7/86

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024120C
REPORT DATE: 2- 6-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESEN#201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO MW2, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/ROTH
DATE: 1-28-87
TIME: 1004

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.025
ALPHA BHC	NOT DETECTED	0.025
BETA BHC	NOT DETECTED	0.050
DELTA BHC	NOT DETECTED	0.050
GAMMA BHC	NOT DETECTED	0.025
CHLORDANE	NOT DETECTED	0.25
P,P' DDD	NOT DETECTED	0.040
P,P' DDE	NOT DETECTED	0.020
P,P' DDT	NOT DETECTED	0.10
DIELDRIN	NOT DETECTED	0.050
ENDOSULFAN I	NOT DETECTED	0.020
ENDOSULFAN II	NOT DETECTED	0.020
ENDOSULFAN SULFATE	NOT DETECTED	0.10
ENDRIN	NOT DETECTED	0.10
HEPTACHLOR	NOT DETECTED	0.020
HEPTACHLOR EPOXIDE	NOT DETECTED	0.020
TOXAPHENE	NOT DETECTED	2.0
PCB-1016	NOT DETECTED	0.50
PCB-1221	NOT DETECTED	2.5
PCB-1232	NOT DETECTED	2.5
PCB-1242	NOT DETECTED	1.3
PCB-1248	NOT DETECTED	0.50
PCB-1254	NOT DETECTED	0.50
PCB-1260	NOT DETECTED	0.50

ANALYST: DENNIS L. DODSON DLD

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

RECEIVED
FEB 10 1987
BUREAU OF
ENVIRONMENTAL
REMEDIATION

DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

RECEIVED
NOV 17 1986
BUREAU OF ENVIRONMENTAL REMEDIATION

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015280C
REPORT DATE: 11-13-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW2 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1410

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.8
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	NOT DETECTED	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.8
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	314	0.4
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	28.7	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	131	0.7
META-XYLENE	108	0.6
ORTHO &/OR PARA-XYLENE	123	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

COMMENT: MANY PETROLEUM TYPE HYDROCARBONS WERE DETECTED.

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016350C
REPORT DATE: 12-10-86

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW2 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1416

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	100
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	100
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	100
HEXACHLOROBUTADIENE	NOT DETECTED	100
1,2,4-TRICHLOROBENZENE	NOT DETECTED	100
NAPTHALENE	NOT DETECTED	100
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	100
2-CHLORONAPHTHALENE	NOT DETECTED	100
ACENAPHTHYLENE	NOT DETECTED	100
ACENAPHTHENE	NOT DETECTED	100
DIMETHYL PHTHALATE	NOT DETECTED	100
2,6-DINITROTOLUENE	NOT DETECTED	100
FLUORENE	NOT DETECTED	100
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	100
2,4-DINITROTOLUENE	NOT DETECTED	100
DIETHYL PHTHALATE	NOT DETECTED	100
HEXACHLOROBENZENE	NOT DETECTED	100
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	100
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	100
DI-N-BUTYL PHTHALATE	NOT DETECTED	100
FLUORANTHENE	NOT DETECTED	100
PYRENE	NOT DETECTED	100
BUTYL BENZYL PHTHALATE	NOT DETECTED	100
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	100
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	100
DI-N-OCTYL PHTHALATE	NOT DETECTED	100
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	100
BENZO(A)PYRENE	NOT DETECTED	100
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	100
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	100
BENZO(G,H,I)PERYLENE	NOT DETECTED	100

COMMENT: NUMEROUS PETROLEUM HYDROCARBONS INDICATIVE OF A VOLATILE, LOW MOLECULAR WEIGHT PETROLEUM FRACTION WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016360C
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW2 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1416

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	20.0
2-NITROPHENOL	NOT DETECTED	20.0
PHENOL	NOT DETECTED	20.0
2,4-DIMETHYLPHENOL	NOT DETECTED	20.0
2,4-DICHLOROPHENOL	NOT DETECTED	20.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	20.0
4-CHLORO-M-CRESOL	NOT DETECTED	20.0
2,4-DINITROPHENOL	NOT DETECTED	500
4,6-DINITRO-O-CRESOL	NOT DETECTED	100
PENTACHLOROPHENOL	NOT DETECTED	100
4-NITROPHENOL	NOT DETECTED	100

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-8420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: RICK BEAN
ADDRESS: BER, BLDG 321

LAB NUMBER: 701083PT
ACCOUNT CODE: OFG
MATRIX: WATER

LOCALITY: ARCO MW2, KANSAS CITY, KANSAS

TIME COLLECTED: 1421

COLLECTED BY: BEAN/ROTH

DATE COLLECTED: 11- 4-86

SAMPLE ID: UOSESENW2011255

DATE-RECEIVED: 11- 5-86

COMMENTS:

DATE REPORTED: 11-19-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/LITER

TOTAL HARD. (CACO3)	448	PH	7.4	IRON	0.09
		TURBIDITY	2410.0	MANGANESE	2.36
CALCIUM	156.5	SPECIFIC CONN.	NA	ARSENIC	0.017
MAGNESIUM	13.4	T. DISSOLVED SOLIDS	457	BARIUM	0.74
SODIUM	6.9	TOTAL PHOSPHORUS (P)	4.53	CADMIUM	ND
POTASSIUM	3.4	SILICA (SIO2)	36.7	CHROMIUM	ND
		BORON	NA	COPPER	ND
TOTAL ALK. (CACO3)	406	DISSOLVED OXYGEN	NA	LEAD	ND
		BOD	NA	MERCURY	ND
CHLORIDE	7.0	COD	NA	SELENIUM	ND
SULFATE	ND	AMMONIA (N)	NA	SILVER	ND
NITRATE (N)	ND	T. SUS. SOLIDS	NA	ZINC	ND
FLUORIDE	0.33			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	406.0	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	40.0	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	0	THALLIUM	NA
TOP	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD

NA - NOT ANALYZED

ND - NOT DETECTED

* *

COPY TO: FILE
DWIGHT BRINKLEY, NEDO
EMILY ROTH, BER

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BUREAU OF
ENVIRONMENTAL
REMEDIATION

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM OFO ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-MW3-S COLLECTION DEPTH 24.0 FEET/METERS

Address KC, Kan County WY

SITE - SAMPLE IDENTIFICATION NUMBER 00-SE-NE-NW-20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-04-86 (MO DAY YR) TIME 1340 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☒ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☐ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Dwight Brinkley Address HEPO

Name Emily Roth Address BER

Name _____ Address _____

DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

NOV 17 1986

BUREAU OF ENVIRONMENTAL REMEDIATION

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701629CC
REPORT DATE: 11-13-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SENENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW3-S KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1340

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	250
BROMOMETHANE	NOT DETECTED	60
VINYL CHLORIDE	NOT DETECTED	40
CHLOROETHANE	NOT DETECTED	185
DICHLOROMETHANE	NOT DETECTED	45
1,1-DICHLOROETHYLENE	NOT DETECTED	30
1,1-DICHLOROETHANE	NOT DETECTED	25
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	25
TRICHLOROMETHANE (THM)	NOT DETECTED	25
1,2-DICHLOROETHANE	NOT DETECTED	30
1,1,1-TRICHLOROETHANE	NOT DETECTED	35
TETRACHLOROMETHANE	NOT DETECTED	35
BROMODICHLOROMETHANE (THM)	NOT DETECTED	25
1,2-DICHLOROPROPANE	NOT DETECTED	20
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	40
TRICHLOROETHYLENE	NOT DETECTED	30
BENZENE	332	20
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	35
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	45
1,1,2-TRICHLOROETHANE	NOT DETECTED	30
BROMOFORM (THM)	NOT DETECTED	75
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	30
TETRACHLOROETHYLENE	NOT DETECTED	55
TOLUENE	131	20
CHLOROBENZENE	NOT DETECTED	20
ETHYLBENZENE	645	35
META-XYLENE	734	30
ORTHO &/OR PARA-XYLENE	758	30
1,3-DICHLOROBENZENE	NOT DETECTED	50
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	50

COMMENT: MANY PETROLEUM TYPE HYDROCARBONS WERE DETECTED.

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016370C
REPORT DATE: 12-10-86

SAMPLE IDENTIFICATION NUMBER: 00SENENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW3-S KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1340

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	100
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	100
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	100
HEXACHLOROBUTADIENE	NOT DETECTED	100
1,2,4-TRICHLOROBENZENE	NOT DETECTED	100
NAPTHALENE	295	100
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	100
2-CHLORONAPHTHALENE	NOT DETECTED	100
ACENAPHTHYLENE	NOT DETECTED	100
ACENAPHTHENE	NOT DETECTED	100
DIMETHYL PHTHALATE	NOT DETECTED	100
2,6-DINITROTOLUENE	NOT DETECTED	100
FLUORENE	NOT DETECTED	100
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	100
2,4-DINITROTOLUENE	NOT DETECTED	100
DIETHYL PHTHALATE	NOT DETECTED	100
HEXACHLOROBENZENE	NOT DETECTED	100
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	100
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	100
DI-N-BUTYL PHTHALATE	NOT DETECTED	100
FLUORANTHENE	NOT DETECTED	100
PYRENE	NOT DETECTED	100
BUTYL BENZYL PHTHALATE	NOT DETECTED	100
BIS(2-ETHYLHEXYL) PHTHALATE	1095	100
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	100
DI-N-OCTYL PHTHALATE	NOT DETECTED	100
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	100
BENZO(A)PYRENE	NOT DETECTED	100
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	100
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	100
BENZO(G,H,I)PERYLENE	NOT DETECTED	100
2-METHYLNAPHTHALENE	280	100

COMMENT: NUMEROUS PETROLEUM HYDROCAREONS INDICATIVE OF A VOLATILE, LOW MOLECULAR WEIGHT PETROLEUM FRACTION WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701633CC
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SENENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW3-S KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1340

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	20.0
2-NITROPHENOL	NOT DETECTED	20.0
PHENOL	NOT DETECTED	20.0
2,4-DIMETHYLPHENOL	NOT DETECTED	20.0
2,4-DICHLOROPHENOL	NOT DETECTED	20.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	20.0
4-CHLORO-M-CRESOL	NOT DETECTED	20.0
2,4-DINITROPHENOL	NOT DETECTED	500
4,6-DINITRO-O-CRESOL	NOT DETECTED	100
PENTACHLOROPHENOL	NOT DETECTED	100
4-NITROPHENOL	NOT DETECTED	100

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to: Division of Environment

Mail Samples to: Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-11913-D COLLECTION DEPTH 50.0 FEET/METERS

Address KC, Kan County WY

SITE - SAMPLE IDENTIFICATION NUMBER 02-55-115-111-26-11-255-

SAMPLE COLLECTOR [illegible] DATE 11-24-86 TIME 1340
MO DAY YR 24 HOUR

ANALYSIS REQUESTED:

☐ Purgable Organics ☐ Routine Pesticides ☒ PP Volatiles

☐ Trihalomethanes ☐ PCB'S ☐ PP Acids

☐ EP Toxicity - Pesticides ☐ PP Pesticides ☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

RECEIVED

NOV 17 1986

BUREAU OF ENVIRONMENTAL REMEDIATION

DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016300C
REPORT DATE: 11-13-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SENENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCC - MW3-D KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 4-86
TIME: 1340

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	250
BROMOMETHANE	NOT DETECTED	60
VINYL CHLORIDE	NOT DETECTED	40
CHLOROETHANE	NOT DETECTED	185
DICHLOROMETHANE	NOT DETECTED	45
1,1-DICHLOROETHYLENE	NOT DETECTED	30
1,1-DICHLOROETHANE	NOT DETECTED	25
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	25
TRICHLOROMETHANE (THM)	NOT DETECTED	25
1,2-DICHLOROETHANE	NOT DETECTED	30
1,1,1-TRICHLOROETHANE	NOT DETECTED	35
TETRACHLOROMETHANE	NOT DETECTED	35
BROMODICHLOROMETHANE (THM)	NOT DETECTED	25
1,2-DICHLOROPROPANE	NOT DETECTED	20
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	40
TRICHLOROETHYLENE	NOT DETECTED	30
BENZENE	472	20
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	35
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	45
1,1,2-TRICHLOROETHANE	NOT DETECTED	30
BROMOFORM (THM)	NOT DETECTED	75
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	30
TETRACHLOROETHYLENE	NOT DETECTED	55
TOLUENE	229	20
CHLOROBENZENE	NOT DETECTED	20
ETHYLBENZENE	770	35
META-XYLENE	1570	30
ORTHO &/OR PARA-XYLENE	937	30
1,3-DICHLOROBENZENE	NOT DETECTED	50
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	50

COMMENT: MANY PETROLEUM TYPE HYDROCARBONS WERE DETECTED.

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

SEND REPORT TO Rick Bean

Address BER # 321

COLLECTION SITE ARCO MW3 COLLECTION DEPTH 24-0 FEET/METERS

Address KC, Kan COUNTY WY

SITE OR SAMPLE IDENTIFICATION NUMBER: ØØSE-NE-NW-2Ø-11-25E-___
(1/4 1/4 1/4 1/4 S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-04-86 (MO DAY YR) TIME 1350 (24 HOUR)

BOTTLE NOS.: CHEM MW3 DO ____ NUT ____ HM 335 CN ____ O & G ____ PHENOL ____

SAMPLE DESCRIPTION: ☐ WATER ☐ SOIL ☐ SEDIMENT/SLUDGE ☐ AIR ☐ OIL/GREASE ☐ SOLID ☐ LIQUID

ANALYSIS REQUESTED:

- ☐ Heavy Metals
- ☐ EP Toxicity (Soil and Solid Samples)
- ☐ Partial Mineral
- ☐ Partial Mineral Plus Heavy Metals
- ☐ Complete Mineral
- ☒ Complete Mineral Plus Heavy Metals
- ☐ Other _____

Comments About Samples _____

CHAIN OF CUSTODY:

Date _____ Received From _____ Received by _____

Date _____ Received From _____ Received by _____

ADDITIONAL REPORTS ROUTED TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BER

Name _____ Address _____

SR 2/86

DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-8420

RESULTS OF LABORATORY ANALYSIS

REPORT TO: RICK BEAN
ADDRESS: BER, BLDG 321

LAB NUMBER: 701084PT
ACCOUNT CODE: OFG
MATRIX: WATER

LOCALITY: APCO AWS, KANSAS CITY, KS

TIME COLLECTED: 1350

COLLECTED BY: BEAN/ROTH

DATE COLLECTED: 11- 4-86

SAMPLE ID: JOSENENW201125E

DATE-RECEIVED: 11- 5-86

COMMENTS:

DATE REPORTED: 11-19-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/LITER

TOTAL HARD.	658	PH	7.5	IRON	25.00
(CACO3)		TURBIDITY	4100.0	MANGANESE	6.10
CALCIUM	223.5	SPECIFIC COND.	NA	ARSENIC	0.043
MAGNESIUM	24.3	T. DISSOLVED SOLIDS	715	BARIUM	0.90
SODIUM	8.4	TOTAL PHOSPHORUS (P)	10.70	CADMIUM	ND
POTASSIUM	4.5	SILICA (SIO2)	38.5	CHROMIUM	ND
		SORP.	NA	COPPER	ND
TOTAL ALK.	604	DISSOLVED OXYGEN	NA	LEAD	0.017
(CACO3)		BOD	NA	MERCURY	ND
CHLORIDE	4.3	COD	NA	SELENIUM	0.001
SULFATE	16	AMMONIA (N)	NA	SILVER	0.006
NITRATE (N)	ND	T. SUS. SOLIDS	NA	ZINC	0.10
FLUORIDE	0.36			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	604.0	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	54.0	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	0	THALLIUM	NA
TDP	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD

NA - NOT ANALYZED

ND - NOT DETECTED

* *

COPY TO: FILE
DWIGHT BRINKLEY, NEDO
EMILY ROTH, BEP

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Fegan Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE Arco - B3 COLLECTION DEPTH 3.8 FEET/METERS

Address [redacted] KC Kan County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER DD-SE-SE-NW-20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean/Roth DATE 11-03-86 (MO DAY YR) TIME 1400 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☐ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701549CC
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - B3 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1400

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.8
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	1.8	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.8
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	NOT DETECTED	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	NOT DETECTED	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE Arco-B2 COLLECTION DEPTH 3.4 FEET/METERS

Address Kansas City County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 00SE-SE-NW-20-11-25E-
(¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean/Roth DATE 11-03-86 (MO DAY YR) TIME 1330 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☐ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkleg Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701547CC
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - B2 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1330

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.5
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	NOT DETECTED	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.8
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	NOT DETECTED	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	NOT DETECTED	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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Arco

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SEP 30 1986

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG. 740, TOPEKA, KS. 66620

LAB NUMBER: 70101900
REPORT DATE: 9-26-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: CONEWEN-191125E001 SAMPLE TYPE: WATER
COLLECTION SITE: FAIRBANKS MORSE PUMP DIV., 3601 KANSAS AVE. (WY CO.)
COLLECTED BY: E. ROTH/N. PARHOMEK DATE: 9-22-86 TIME: 1130

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.8
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	NOT DETECTED	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	0.5	0.5
TRICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.8
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	NOT DETECTED	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	NOT DETECTED	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

COMMENT: ONE UNIDENTIFIED HYDROCARBON, POSSIBLY PROPYL CYCLOPROPANE, WAS PRESENT.

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-6420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: EMILY ROTH
ADDRESS:

LAB NUMBER: 700682PT
ACCOUNT CODE: OFG
MATRIX: WATER

LOCALITY: FAIRBANKS MORSE, 3601 KANSAS AVE.
TIME COLLECTED: 1130

COLLECTED BY: E. ROTH & M. PARHOMEK
DATE COLLECTED: 9-22-86

SAMPLE ID: NENENE191125ECD1
DATE-RECEIVED: 9-22-86

COMMENTS:
DATE REPORTED: 10-16-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/LITER

TOTAL HARD. (CACO3)	562	PH	NA	IRON	25.50
		TURBIDITY	NA	MANGANESE	1.44
CALCIUM	195.0	SPECIFIC COND.	NA	ARSENIC	0.026
MAGNESIUM	18.4	T. DISSOLVED SOLIDS	NA	BARIUM	0.25
SODIUM	106.4	TOTAL PHOSPHORUS (P)	NA	CADMIUM	ND
POTASSIUM	NA	SILICA (SIO2)	NA	CHROMIUM	ND
		BORON	NA	COPPER	0.07
TOTAL ALK. (CACO3)	419	DISSOLVED OXYGEN	NA	LEAD	ND
		BOD	NA	MERCURY	ND
CHLORIDE	103.0	COD	NA	SELENIUM	ND
SULFATE	226	AMMONIA (N)	NA	SILVER	ND
NITRATE (N)	0.02	T. SUS. SOLIDS	NA	ZINC	0.07
FLUORIDE	0.21			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	419.0	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	NA	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	NA	THALLIUM	NA
TDP	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD
NA - NOT ANALYZED
ND - NOT DETECTED

* *

COPY TO: FILE
RICK BEAN, ENV. REMEDIATION

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG. 740, TOPEKA, KS. 66620

LAB NUMBER: 7010290C
REPORT DATE: 10-13-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00NENENE191125E001 SAMPLE TYPE: WATER
COLLECTION SITE: FAIRBANKS MORSE PUMP DIV., 3601 KANSAS AVE. (WY CO.)
COLLECTED BY: E. ROTH/M. PARHOMEK DATE: 9-22-86 TIME: 1130

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	2.0
2-NITROPHENOL	NOT DETECTED	2.0
PHENOL	NOT DETECTED	2.0
2,4-DIMETHYLPHENOL	NOT DETECTED	2.0
2,4-DICHLOROPHENOL	NOT DETECTED	2.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	2.0
4-CHLORO-M-CRESOL	NOT DETECTED	2.0
2,4-DINITROPHENOL	NOT DETECTED	50.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	10.0
PENTACHLOROPHENOL	NOT DETECTED	10.0
4-NITROPHENOL	NOT DETECTED	10.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG. 740, TOPEKA, KS. 66620

LAB NUMBER: 701028CC
REPORT DATE: 10-13-86

SAMPLE IDENTIFICATION NUMBER: 00NENSNE191125E001 SAMPLE TYPE: WATER
COLLECTION SITE: FAIRBANKS MORSE PUMP DIV., 3601 KANSAS AVE. (WY CO.)
COLLECTED BY: E. ROTH/M. PARHOMEK DATE: 9-22-86 TIME: 1130

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	10
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	10
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	10
HEXACHLOROBUTADIENE	NOT DETECTED	10
1,2,4-TRICHLOROBENZENE	NOT DETECTED	10
NAPTHALENE	NOT DETECTED	10
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	10
2-CHLORONAPHTHALENE	NOT DETECTED	10
ACENAPHTHYLENE	NOT DETECTED	10
ACENAPHTHENE	NOT DETECTED	10
DIMETHYL PHTHALATE	NOT DETECTED	10
2,6-DINITROTOLUENE	NOT DETECTED	10
FLUORENE	NOT DETECTED	10
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	10
2,4-DINITROTOLUENE	NOT DETECTED	10
DIETHYL PHTHALATE	NOT DETECTED	10
HEXACHLOROBENZENE	NOT DETECTED	10
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	10
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	10
DI-N-BUTYL PHTHALATE	NOT DETECTED	10
FLUORANTHENE	NOT DETECTED	10
PYRENE	NOT DETECTED	10
BUTYL BENZYL PHTHALATE	NOT DETECTED	10
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	10
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	10
DI-N-OCTYL PHTHALATE	NOT DETECTED	10
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	10
BENZO(A)PYRENE	NOT DETECTED	10
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	10
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	10
BENZO(G,H,I)PERYLENE	NOT DETECTED	10

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG. 740, TOPEKA, KS. 66620

LAB NUMBER: 70102700
REPORT DATE: 10- 2-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: OUKENEN1/11125E001 SAMPLE TYPE: WATER
COLLECTION SITE: FAIRBANKS NORSE POWER DIV., 2001 KANSAS AVE. (KY CO.)
COLLECTED BY: E. ROTH/M. PARKHURST DATE: 9-22-86 TIME: 1130

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.025
ALPHA BHC	NOT DETECTED	0.025
BETA BHC	NOT DETECTED	0.050
DELTA BHC	NOT DETECTED	0.050
GAMMA BHC	NOT DETECTED	0.025
CHLORDANE	NOT DETECTED	0.05
P,P' DDD	NOT DETECTED	0.040
P,P' DDE	NOT DETECTED	0.020
P,P' DDT	NOT DETECTED	0.10
DIELDRIN	NOT DETECTED	0.050
ENDOSULFAN I	NOT DETECTED	0.020
ENDOSULFAN II	NOT DETECTED	0.020
ENDOSULFAN SULFATE	NOT DETECTED	0.10
ENDRIN	NOT DETECTED	0.10
HEPTACHLOR	NOT DETECTED	0.020
HEPTACHLOR EPOXIDE	NOT DETECTED	0.020
TOXAPHENE	NOT DETECTED	1.0
PCB-1016	NOT DETECTED	0.50
PCB-1221	NOT DETECTED	2.5
PCB-1232	NOT DETECTED	2.5
PCB-1242	NOT DETECTED	1.0
PCB-1248	NOT DETECTED	0.50
PCB-1254	NOT DETECTED	0.50
PCB-1260	NOT DETECTED	0.50

ANALYST: DENNIS L. DOTSON

ROBERT H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG. 740

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LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016000
REPORT DATE: 12-16-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWN-201125F003
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO-SINCLAIR - SW1 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 5-86
TIME: 1430

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	20.0
2-NITROPHENOL	NOT DETECTED	20.0
PHENOL	74.1	20.0
2,4-DIMETHYLPHENOL	36.0	20.0
2,4-DICHLOROPHENOL	25.5	20.0
2,4,5-TRICHLOROPHENOL	NOT DETECTED	20.0
4-CHLORO-M-CRESOL	NOT DETECTED	20.0
2,4-DINITROPHENOL	NOT DETECTED	500
4,6-DINITRO-O-CRESOL	NOT DETECTED	100
PENTACHLOROPHENOL	NOT DETECTED	100
4-NITROPHENOL	NOT DETECTED	100
ORTHO-CRESOL	103	20.0
PARA-CRESOL	115	20.0
BENZYL ALCOHOL	109	100

NOTE: 2,5-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE Arco-Sinclair - Discharge (pond before flush) COLLECTION DEPTH _____ FEET/METERS

Address KC, KAN County WY

SITE - SAMPLE IDENTIFICATION NUMBER __-__-SW-NW-20-11-25E-001
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-05-86 (MO DAY YR) TIME 1445 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☐ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☒ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/6 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E Roth Address BER

Name D. Brinkley Address NFDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016630C
REPORT DATE: 12-17-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E001 SAMPLE TYPE: WATER
COLLECTION SITE: ARCO-SINCLAIR - DISCHARGE (POND BEFORE FLUSH) KC, KS. WY CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1445

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	20.0
2-NITROPHENOL	NOT DETECTED	20.0
PHENOL	90.6	20.0
2,4-DIMETHYLPHENOL	89.0	20.0
2,4-DICHLOROPHENOL	NOT DETECTED	20.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	20.0
4-CHLORO-M-CRESOL	NOT DETECTED	20.0
2,4-DINITROPHENOL	NOT DETECTED	500
4,6-DINITRO-O-CRESOL	NOT DETECTED	100
PENTACHLOROPHENOL	NOT DETECTED	100
4-NITROPHENOL	NOT DETECTED	100
BENZYL ALCOHOL	205	100
ORTHO-CRESOL	185	20.0
PARA-CRESOL	214	20.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701561CC
REPORT DATE: 12-11-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00COSWNW201125E001 SAMPLE TYPE: WATER
COLLECTION SITE: ARCO-SINCLAIR - DISCHARGE (POND BEFORE FLUSH) KC, KS. WY CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1445

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.62
ALPHA BHC	NOT DETECTED	3.1
BETA BHC	NOT DETECTED	15
DELTA BHC	NOT DETECTED	3.1
GAMMA BHC	NOT DETECTED	3.1
CHLORDANE	NOT DETECTED	6.2
P,P' DDD	NOT DETECTED	1.0
P,P' DDE	NOT DETECTED	0.50
P,P' DDT	NOT DETECTED	2.5
DIELDRIN	NOT DETECTED	31
ENDOSULFAN I	NOT DETECTED	0.50
ENDOSULFAN II	NOT DETECTED	0.50
ENDOSULFAN SULFATE	NOT DETECTED	2.5
ENDRIN	NOT DETECTED	12
HEPTACHLOR	NOT DETECTED	0.50
HEPTACHLOR EPOXIDE	NOT DETECTED	12
TOXAPHENE	NOT DETECTED	50
PCB-1016	NOT DETECTED	62
PCB-1221	NOT DETECTED	62
PCB-1232	NOT DETECTED	62
PCB-1242	NOT DETECTED	62
PCB-1248	NOT DETECTED	62
PCB-1254	NOT DETECTED	62
PCB-1260	NOT DETECTED	12
METHOXYCHLOR	92	

COMMENT: METHOXYCHLOR IS NOT A PRIORITY POLLLTANT PESTICIDE. IT IS, HOWEVER, AN EP TOX PESTICIDE.

ANALYST: DENNIS L. DOBSON

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to: Division of Environment

Mail Samples to: Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BLDG 321 Forbes BER

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - 2A COLLECTION DEPTH 5.0 FEET/METERS

Address KANSAS CITY County WYANDOTTE

SITE - SAMPLE IDENTIFICATION NUMBER __-NW-SE-NW-20-11-25E-___
N N N N S T R

SAMPLE COLLECTOR Bean DATE 10-24-86 TIME 1000
MO DAY YR 24 HOUR

ANALYSIS REQUESTED:

☐ Purgable Organics ☐ Routine Pesticides ☒ PP Volatiles

☐ Trihalomethanes ☐ PCB'S ☐ PP Acids

☐ EP Toxicity - Pesticides ☐ PP Pesticides ☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BLDG 321 BER

Address

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7014640C
REPORT DATE: 10-31-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00NJSENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC-2A KANSAS CITY WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 10-24-86
TIME: 1000

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.05
BROMOMETHANE	NOT DETECTED	0.04
VINYL CHLORIDE	NOT DETECTED	0.04
CHLOROETHANE	NOT DETECTED	0.19
DICHLOROMETHANE	NOT DETECTED	0.03
1,1-DICHLOROETHYLENE	NOT DETECTED	0.02
1,1-DICHLOROETHANE	NOT DETECTED	0.02
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.02
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.01
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.02
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.02
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	NOT DETECTED	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.05
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.05
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	NOT DETECTED	0.02
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	NOT DETECTED	0.03
META-XYLENE	NOT DETECTED	0.02
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.03

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to Division of Environment

Mail Samples to Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BLDG 321 BER

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-2B COLLECTION DEPTH 15.0 FEET/METERS

Address KANSAS City County WYANDOTTE

SITE - SAMPLE IDENTIFICATION NUMBER __-NW-SE-NW-20-11-25E-___
(Q Q Q Q S T R)

SAMPLE COLLECTOR Bean DATE 10-24-86 TIME 1000
(MO DAY YR) (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics ☐ Routine Pesticides ☒ PP Volatiles

☐ Trihalomethanes ☐ PCB'S ☐ PP Acids

☐ EP Toxicity - Pesticides ☐ PP Pesticides ☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Dwight Brinkley Address NEDO

Name Emily Roth Address BLDG 321 BER

Name _____ Address _____

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701465CC
REPORT DATE: 10-31-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: OONWSENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC-23 KANSAS CITY WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 10-24-86
TIME: 1100

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.05
BROMOMETHANE	NOT DETECTED	0.04
VINYL CHLORIDE	NOT DETECTED	0.04
CHLOROETHANE	NOT DETECTED	0.19
DICHLOROMETHANE	NOT DETECTED	0.03
1,1-DICHLOROETHYLENE	NOT DETECTED	0.02
1,1-DICHLOROETHANE	NOT DETECTED	0.02
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.02
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.01
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.02
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.02
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	0.27	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.05
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.05
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	0.04	0.02
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	2.6	0.03
META-XYLENE	1.7	0.02
ORTHO &/OR PARA-XYLENE	2.5	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.03

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

SEND REPORT TO Rick Bean

Address BER BLDG 321

COLLECTION SITE ARCO #2 COLLECTION DEPTH 5.0 FEET/METERS

Address ~~[illegible]~~ Kansas City COUNTY Wyandotte

SITE OR SAMPLE IDENTIFICATION NUMBER: ØØ-NW-SE-NW-20-11-25E-___
1/4 1/4 1/4 1/4 S T R

SAMPLE COLLECTOR Bean DATE 10-24-86 (MO DAY YR) TIME 1000 (24 HOUR)

BOTTLE NOS.: CHEM ____ DO ____ NUT ____ HM #2 CN ____ O & G ____ PHENOL ____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT/SLUDGE ☐ AIR ☐ OIL/GREASE ☐ SOLID ☐ LIQUID

ANALYSIS REQUESTED:

- ☐ Heavy Metals
- ☒ EP Toxicity (Soil and Solid Samples)
- ☐ Partial Mineral
- ☐ Partial Mineral Plus Heavy Metals
- ☐ Complete Mineral
- ☐ Complete Mineral Plus Heavy Metals
- ☐ Other _____

Comments About Samples _____

CHAIN OF CUSTODY:

Date _____ Received From _____ Received by _____

Date _____ Received From _____ Received by _____

ADDITIONAL REPORTS ROUTED TO:

Name Dwight Brinkley Address NSDO

Name Emily Roth Address BER

Name _____ Address _____

LSR 2/86

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-0420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: RICK BEAN, BER
ADDRESS:
KS

LAB NUMBER: 701038PT
ACCOUNT CODE: OFG
MATRIX: SOIL

LOCALITY: ARCO #2, KANSAS CITY

TIME COLLECTED: 1000

COLLECTED BY: BEAN

DATE COLLECTED: 10-24-86

SAMPLE ID: DCNWSENW201125E

DATE-RECEIVED: 10-27-86

COMMENTS:
ACID LEACH ANALYSIS COMPLETE

DATE REPORTED: 12- 4-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/KILOGRAM

TOTAL HARD.	NA	PH	NA	IRON	NA
(CACO3)		TURBIDITY	NA	MANGANESE	NA
CALCIUM	NA	SPECIFIC COND.	NA	ARSENIC	2.700
MAGNESIUM	NA	T. DISSOLVED SOLIDS	NA	BARIUM	39.96
SODIUM	NA	TOTAL PHOSPHORUS (P)	NA	CADMIUM	0.792
POTASSIUM	NA	SILICA (SIO2)	NA	CHROMIUM	2.60
		BORON	NA	COPPER	7.00
TOTAL ALK.	NA	DISSOLVED OXYGEN	NA	LEAD	59.950
(CACO3)		BOD	NA	MERCURY	ND
CHLORIDE	NA	COD	NA	SELENIUM	ND
SULFATE	NA	AMMONIA (N)	NA	SILVER	0.497
NITRATE (N)	NA	T. SUS. SOLIDS	NA	ZINC	75.49
FLUORIDE	NA			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	NA	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	NA	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	NA	THALLIUM	NA
TDP	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD

NA - NOT ANALYZED

ND - NOT DETECTED

* *

COPY TO: FILE
DWIGHT BRINKLEY, NEDO
EMILY ROTH, BER

RECEIVED
DEC - 5 1986
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ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to
Division of Environment

Mail Samples to
Environmental Laboratory

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

SEND REPORT TO: Emily Roth ACCOUNT CODE BER

Address Environ. Remediation

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE Arco MW#3 COLLECTION DEPTH 25' FEET/METERS

Address 3600 Kansas Ave

SITE - SAMPLE IDENTIFICATION NUMBER NENW20T11SR25E003

SAMPLE COLLECTOR E Roth DATE 10-27-86 (MO DAY YR) TIME ___ (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☒ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☒ PP Base Neutrals

☐ Other _____

Comments pet. products odors

CHAIN OF CUSTODY

Date 10/27/86 Received From E Roth Received By _____

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Rick Bean Address BER

Name Michael Paliwek Address NED - BER

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

SEND REPORT TO ~~L. Knoche~~ E. Roth

Address Build. ~~900~~ 321 Environmental Remediation

COLLECTION SITE Arco MW#3 COLLECTION DEPTH 25' FEET/METERS

Address 3600 Kansas Ave, KCK COUNTY Wyandotte

SITE OR SAMPLE IDENTIFICATION NUMBER: __-__-__-NE-NW-2D-11-25E-003
1/4 1/4 1/4 1/4 S T R

SAMPLE COLLECTOR Emily Roth DATE 10-27-86 TIME ____
MO DAY YR 24 HOUR

BOTTLE NOS.: CHEM #3 DO ____ NUT ____ HM ____ CN ____ O & G ____ PHENOL ____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT/SLUDGE ☐ AIR ☐ OIL/GREASE ☐ SOLID ☐ LIQUID

ANALYSIS REQUESTED:

- ☐ Heavy Metals
- ☒ EP Toxicity (Soil and Solid Samples)
- ☐ Partial Mineral
- ☐ Partial Mineral Plus Heavy Metals
- ☐ Complete Mineral
- ☐ Complete Mineral Plus Heavy Metals
- ☐ Other _____

Comments About Samples _____

CHAIN OF CUSTODY:

Date _____ Received From _____ Received by _____

Date _____ Received From _____ Received by _____

ADDITIONAL REPORTS ROUTED TO:

Name _____ Address _____

Name _____ Address _____

Name _____ Address _____

LCP 2/86

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-0420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: EMILY ROTH, BER
ADDRESS:
KS

LAB NUMBER: 701031PT
ACCOUNT CODE: JFG
MATRIX: SOIL

LOCALITY: ARCO #3

TIME COLLECTED: 1300

COLLECTED BY: EMILY ROTH

DATE COLLECTED: 10-27-86

SAMPLE ID: NENW201125EC01

DATE-RECEIVED: 10-29-86

COMMENTS: PETROLEUM PRODUCT ODORS
ACID LEACH ANALYSIS COMPLETE

DATE REPORTED: 12- 4-86

* *

RESULTS EXPRESSED IN MILLIGRAMS/KILOGRAM

TOTAL HARD.	NA	PH	NA	IRON	NA
(CACO3)		TURBIDITY	NA	MANGANESE	NA
CALCIUM	NA	SPECIFIC COND.	NA	ARSENIC	2.500
MAGNESIUM	NA	T. DISSOLVED SOLIDS	NA	BARIUM	52.96
SODIUM	NA	TOTAL PHOSPHORUS (P)	NA	CADMIUM	0.292
POTASSIUM	NA	SILICA (SIO2)	NA	CHROMIUM	4.30
		BORON	NA	COPPER	14.00
TOTAL ALK.	NA	DISSOLVED OXYGEN	NA	LEAD	12.950
(CACO3)		BOD	NA	MERCURY	ND
CHLORIDE	NA	COD	NA	SELENIUM	ND
SULFATE	NA	AMMONIA (N)	NA	SILVER	0.297
NITRATE (N)	NA	T. SUS. SOLIDS	NA	ZINC	125.89
FLUORIDE	NA			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	NA	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	NA	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	NA	THALLIUM	NA
TDP	NA	M-AS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD

NA - NOT ANALYZED

ND - NOT DETECTED

* *

COPY TO: FILE
VICK BEAN, BER
MICHAEL PARHOMEK, NED, BER

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7014930C
REPORT DATE: 11-26-86

SAMPLE IDENTIFICATION NUMBER: 0000NENW112025E003 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO MW#3, 3600 KANSAS AVE., KCK
COLLECTED BY: EMILY ROTH DATE: 10-27-86 TIME: ****

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	2.0
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	2.0
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	2.0
HEXACHLOROBUTADIENE	NOT DETECTED	2.0
1,2,4-TRICHLOROBENZENE	NOT DETECTED	2.0
NAPTHALENE	NOT DETECTED	2.0
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	2.0
2-CHLORONAPHTHALENE	NOT DETECTED	2.0
ACENAPHTHYLENE	NOT DETECTED	2.0
ACENAPHTHENE	NOT DETECTED	2.0
DIMETHYL PHTHALATE	NOT DETECTED	2.0
2,6-DINITROTOLUENE	NOT DETECTED	2.0
FLUORENE	NOT DETECTED	2.0
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	2.0
2,4-DINITROTOLUENE	NOT DETECTED	2.0
DIETHYL PHTHALATE	NOT DETECTED	2.0
HEXACHLOROBENZENE	NOT DETECTED	2.0
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	2.0
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	2.0
DI-N-BUTYL PHTHALATE	NOT DETECTED	2.0
FLUORANTHENE	NOT DETECTED	2.0
PYRENE	NOT DETECTED	2.0
BUTYL BENZYL PHTHALATE	NOT DETECTED	2.0
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	2.0
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	2.0
DI-N-OCTYL PHTHALATE	NOT DETECTED	2.0
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	2.0
BENZO(A)PYRENE	NOT DETECTED	2.0
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	2.0
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	2.0
BENZO(G,H,I)PERYLENE	NOT DETECTED	2.0

COMMENT: SOME SULFUR AND A LARGE AMOUNT OF BIS-(2-ETHYLHEXYL) ADIPATE, A PLASTIZER, WERE INDICATED IN THIS SAMPLE. TRACES OF HYDROCARBONS WERE ALSO INDICATED.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740
DWIGHT ERINKLEY, NEDO

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7014940C
REPORT DATE: 11-26-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NENW112025E003 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO MW#3, 3600 KANSAS AVE., KCK
COLLECTED BY: EMILY ROTH DATE: 10-27-86 TIME: ****

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	0.4
2-NITROPHENOL	NOT DETECTED	0.4
PHENOL	NOT DETECTED	0.4
2,4-DIMETHYLPHENOL	NOT DETECTED	0.4
2,4-DICHLOROPHENOL	NOT DETECTED	0.4
2,4,6-TRICHLOROPHENOL	NOT DETECTED	0.4
4-CHLORO-M-CRESOL	NOT DETECTED	0.4
2,4-DINITROPHENOL	NOT DETECTED	10.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	2.0
PENTACHLOROPHENOL	NOT DETECTED	2.0
4-NITROPHENOL	NOT DETECTED	2.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740
DWIGHT BRINKLEY, NEDO

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LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

NOV 3 1986

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DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: EMILY ROTH
ADDRESS: FORBES BLDG. 740, TOPEKA, KS. 66620

LAB NUMBER: 7014920C
REPORT DATE: 10-31-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00CONENW112025E003 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC MW#3, 2600 KANSAS AVE., KCK
COLLECTED BY: EMILY ROTH DATE: 10-27-86 TIME: ****

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.09
BROMOMETHANE	NOT DETECTED	0.05
VINYL CHLORIDE	NOT DETECTED	0.06
CHLOROETHANE	NOT DETECTED	0.25
DICHLOROMETHANE	NOT DETECTED	0.04
1,1-DICHLOROETHYLENE	NOT DETECTED	0.02
1,1-DICHLOROETHANE	NOT DETECTED	0.02
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.02
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.02
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.02
1,2-DICHLOROPROPANE	NOT DETECTED	0.03
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.04
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	0.03	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.04
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.06
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.04
BROMOFORM (THM)	NOT DETECTED	0.06
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.07
TETRACHLOROETHYLENE	NOT DETECTED	0.03
TOLUENE	NOT DETECTED	0.02
CHLOROBENZENE	NOT DETECTED	0.02
ETHYLBENZENE	0.05	0.04
META-XYLENE	0.03	0.03
ORTHO &/OR PARA-XYLENE	0.07	0.03
1,3-DICHLOROBENZENE	NOT DETECTED	0.03
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.04

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: RICK BEAN, FORBES BLDG 740
DWIGHT BRINKLEY, NEDO

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM OEG ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE DYMON - SED #1 COLLECTION DEPTH 0 - 1 FEET/METERS

Address KC, KAN County WY

SITE - SAMPLE IDENTIFICATION NUMBER __ - SW - NW - NW - 20 - 11 - 25 E - 001
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR BEAN / ROTH DATE 11-05-86 (MO DAY YR) TIME 1420 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☐ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☒ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/6 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. ROTH Address BER

Name D. Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701566CC
REPORT DATE: 12- 3-86

SAMPLE IDENTIFICATION NUMBER: DOSWNWRW201125E001 SAMPLE TYPE: SOIL
COLLECTION SITE: DYMON-SED #1 KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1420

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	4.0
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	4.0
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	4.0
HEXACHLOROBUTADIENE	NOT DETECTED	4.0
1,2,4-TRICHLOROBENZENE	NOT DETECTED	4.0
NAPTHALENE	NOT DETECTED	4.0
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	4.0
2-CHLORONAPPTHALENE	NOT DETECTED	4.0
ACENAPHTHYLENE	NOT DETECTED	4.0
ACENAPHTHENE	NOT DETECTED	4.0
DIMETHYL PHTHALATE	NOT DETECTED	4.0
2,6-DINITROTOLUENE	NOT DETECTED	4.0
FLUORENE	NOT DETECTED	4.0
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	4.0
2,4-DINITROTOLUENE	NOT DETECTED	4.0
DIETHYL PHTHALATE	NOT DETECTED	4.0
HEXACHLOROBENZENE	NOT DETECTED	4.0
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	4.0
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	4.0
DI-N-BUTYL PHTHALATE	NOT DETECTED	4.0
FLUORANTHENE	NOT DETECTED	4.0
PYRENE	NOT DETECTED	4.0
BUTYL BENZYL PHTHALATE	NOT DETECTED	4.0
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	4.0
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	4.0
DI-N-OCTYL PHTHALATE	NOT DETECTED	4.0
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	4.0
BENZO(A)PYRENE	NOT DETECTED	4.0
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	4.0
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	4.0
BENZO(G,H,I)PERYLENE	NOT DETECTED	4.0

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

RECEIVED
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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701665CC
REPORT DATE: 12- 3-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SWNWNW2D1125E001 SAMPLE TYPE: SOIL
COLLECTION SITE: DYMON-SED #1 KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1420

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	0.8
2-NITROPHENOL	NOT DETECTED	0.8
PHENOL	NOT DETECTED	0.8
2,4-DIMETHYLPHENOL	NOT DETECTED	0.8
2,4-DICHLOROPHENOL	NOT DETECTED	0.8
2,4,6-TRICHLOROPHENOL	NOT DETECTED	0.8
4-CHLORO-M-CRESOL	NOT DETECTED	0.8
2,4-DINITROPHENOL	NOT DETECTED	20.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	4.0
PENTACHLOROPHENOL	NOT DETECTED	4.0
4-NITROPHENOL	NOT DETECTED	4.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

RECEIVED
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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016640C
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SWNWN*201125E001 SAMPLE TYPE: SOIL
COLLECTION SITE: DYMON-SED #1 KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1420

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ALDRIN	NOT DETECTED	0.13
ALPHA BHC	NOT DETECTED	0.13
BETA BHC	NOT DETECTED	0.63
DELTA BHC	NOT DETECTED	0.13
GAMMA BHC	NOT DETECTED	0.13
CHLORDANE	9.2	-
P,P' DDD	NOT DETECTED	0.20
P,P' DDE	NOT DETECTED	0.51
P,P' DDT	NOT DETECTED	0.51
DIELDRIN	NOT DETECTED	1.3
ENDOSULFAN I	NOT DETECTED	0.51
ENDOSULFAN II	NOT DETECTED	0.51
ENDOSULFAN SULFATE	NOT DETECTED	0.51
ENDRIN	NOT DETECTED	0.51
HEPTACHLOR	NOT DETECTED	0.10
HEPTACHLOR EPOXIDE	NOT DETECTED	0.10
TOXAPHENE	NOT DETECTED	10
PCB-1016	NOT DETECTED	2.5
PCB-1221	NOT DETECTED	2.5
PCB-1232	NOT DETECTED	2.5
PCB-1242	NOT DETECTED	2.5
PCB-1248	NOT DETECTED	2.5
PCB-1254	NOT DETECTED	2.5
PCB-1260	NOT DETECTED	2.5
METHOXYCHLOR	1.5	

COMMENT: METHOXYCHLOR IS NOT A PRIORITY POLLUTANT PESTICIDE. IT IS, HOWEVER AN EP TOX PESTICIDE.

ANALYST: DENNIS L. DOBSON

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

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BUREAU OF
ENVIRONMENTAL
REMEDIATION

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016670C
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00COSWNW201125E002 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO-SINCLAIR - S1 KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1440

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ALDRIN	NOT DETECTED	0.68
ALPHA BHC	NOT DETECTED	0.68
BETA BHC	NOT DETECTED	3.4
DELTA BHC	NOT DETECTED	3.4
GAMMA BHC	NOT DETECTED	3.4
CHLORDANE	NOT DETECTED	34
P,P' DDD	NOT DETECTED	1.1
P,P' DDE	NOT DETECTED	0.54
P,P' DDT	NOT DETECTED	2.7
DIELDRIN	NOT DETECTED	1.4
ENDOSULFAN I	NOT DETECTED	0.54
ENDOSULFAN II	NOT DETECTED	0.54
ENDOSULFAN SULFATE	NOT DETECTED	2.7
ENDRIN	NOT DETECTED	2.7
HEPTACHLOR	NOT DETECTED	0.54
HEPTACHLOR EPOXIDE	NOT DETECTED	0.54
TOXAPHENE	NOT DETECTED	54
PCB-1016	NOT DETECTED	68
PCB-1221	NOT DETECTED	68
PCB-1232	NOT DETECTED	68
PCB-1242	NOT DETECTED	68
PCB-1248	NOT DETECTED	68
PCB-1254	NOT DETECTED	14
PCB-1260	NOT DETECTED	14
METHOXYCHLOR	24	

COMMENT: METHOXYCHLOR IS NOT A PRIORITY POLLUTANT PESTICIDE. IT IS, HOWEVER AN EP TOX PESTICIDE.

ANALYST: DENNIS L. DOBSON

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

RECEIVED

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - Sinclair 51 COLLECTION DEPTH 0.0 FEET/METERS

Address KC, KAN County WY

SITE - SAMPLE IDENTIFICATION NUMBER __-__-SW-NW-20-11-25E-002
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR BEAN/ROTH DATE 11-05-86 (MO DAY YR) TIME 1440 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☐ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☒ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/6 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. ROTH Address BER

Name D. Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701669CC
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E002 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC-SINCLAIR - S1 KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1440

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	10.8
2-NITROPHENOL	NOT DETECTED	10.8
PHENOL	NOT DETECTED	10.8
2,4-DIMETHYLPHENOL	NOT DETECTED	10.8
2,4-DICHLOROPHENOL	NOT DETECTED	10.8
2,4,6-TRICHLOROPHENOL	NOT DETECTED	10.8
4-CHLORO-M-CRESOL	NOT DETECTED	10.8
2,4-DINITROPHENOL	NOT DETECTED	270
4,6-DINITRO-O-CRESOL	NOT DETECTED	54.0
PENTACHLOROPHENOL	NOT DETECTED	54.0
4-NITROPHENOL	NOT DETECTED	54.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701668CC
REPORT DATE: 12-10-86

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E002 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC-SINCLAIR - S1, KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1440

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	54.1
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	54.1
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	54.1
HEXACHLOROBUTADIENE	NOT DETECTED	54.1
1,2,4-TRICHLOROBENZENE	NOT DETECTED	54.1
NAPTHALENE	NOT DETECTED	54.1
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	54.1
2-CHLORONAPHTHALENE	NOT DETECTED	54.1
ACENAPHTHYLENE	NOT DETECTED	54.1
ACENAPHTHENE	NOT DETECTED	54.1
DIMETHYL PHTHALATE	NOT DETECTED	54.1
2,6-DINITROTOLUENE	NOT DETECTED	54.1
FLUORENE	NOT DETECTED	54.1
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	54.1
2,4-DINITROTOLUENE	NOT DETECTED	54.1
DIETHYL PHTHALATE	NOT DETECTED	54.1
HEXACHLOROBENZENE	NOT DETECTED	54.1
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	54.1
PHENANTHRENE &/OR ANTHRACENE	64.9	54.1
DI-N-BUTYL PHTHALATE	68.1	54.1
FLUORANTHENE	NOT DETECTED	54.1
PYRENE	NOT DETECTED	54.1
BUTYL BENZYL PHTHALATE	NOT DETECTED	54.1
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	54.1
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	54.1
DI-N-OCTYL PHTHALATE	NOT DETECTED	54.1
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	54.1
BENZO(A)PYRENE	NOT DETECTED	54.1
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	54.1
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	54.1
BENZO(G,H,I)PERYLENE	NOT DETECTED	54.1

COMMENT: THE PRIMARY COMPONENTS OF THIS SAMPLE ARE PETROLEUM HYDROCARBONS, BOTH THOSE INDICATIVE OF VOLATILE, LOW MOLECULAR WEIGHT FRACTIONS AND THOSE OF THE LOW VOLATILE, HIGH MOLECULAR WEIGHT FRACTIONS.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

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FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address Ber 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other sludge

COLLECTION SITE Arco-Sinclair - 52 COLLECTION DEPTH _____ FEET/METERS

Address VC, Kan County WY

SITE - SAMPLE IDENTIFICATION NUMBER _ _ - _ _ - SW - NW - 20 - 11 - 25 E - 006
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / ROTH DATE 11-05-86 (MO DAY YR) TIME 1500 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☐ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☐ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/6 Received From [illegible] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. ROTH Address Ber

Name D. Brinkley Address VSSO

Name _____ Address _____

RECEIVED

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DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701645CC
REPORT DATE: 11-12-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E006
SAMPLE TYPE: M-SLUDGE
COLLECTION SITE: ARCO-SINCLAIR - S2 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 5-86
TIME: 1500

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.41
BROMOMETHANE	NOT DETECTED	0.06
VINYL CHLORIDE	NOT DETECTED	0.11
CHLOROETHANE	NOT DETECTED	0.21
DICHLOROMETHANE	5670C	0.02
1,1-DICHLOROETHYLENE	0.17	0.01
1,1-DICHLOROETHANE	0.91	0.01
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	0.13	0.01
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	5950	0.01
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.02
TRICHLOROETHYLENE	1.0	0.02
BENZENE	0.03	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.04
TETRACHLOROETHYLENE	17900	0.02
TOLUENE	8530	0.01
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLEENZENE	113	0.02
META-XYLENE	297	0.02
ORTHO &/OR PARA-XYLENE	218	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.02

COMMENT: A LARGE QUANTITY OF 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE WAS ALSO PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
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SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

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FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other Sludge

COLLECTION SITE Arco - Sinclair - LANDFARM COLLECTION DEPTH — FEET/METERS

Address KC Kan County WY

SITE - SAMPLE IDENTIFICATION NUMBER _ _ - _ _ - SW - NW - 20 - 11 - 25E - 005
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean/ROTH DATE 11-05-86 (MO DAY YR) TIME 1505 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☐ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☒ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/6 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. Roth Address BER

Name D. Brinkley Address NSDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016720C
REPORT DATE: 12-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E005 SAMPLE TYPE: M-SLUDGE
COLLECTION SITE: ARCO-SINCLAIR - LANDFARM KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1505

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	15.0
2-NITROPHENOL	NOT DETECTED	15.0
PHENOL	50.6	15.0
2,4-DIMETHYLPHENOL	NOT DETECTED	15.0
2,4-DICHLOROPHENOL	NOT DETECTED	15.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	15.0
4-CHLORO-M-CRESOL	NOT DETECTED	15.0
2,4-DINITROPHENOL	NOT DETECTED	375
4,6-DINITRO-O-CRESOL	NOT DETECTED	75.0
PENTACHLOROPHENOL	NOT DETECTED	75.0
4-NITROPHENOL	NOT DETECTED	75.0
ORTHO-CRESOL	21.9	15.0
PARA-CRESOL	46.0	15.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016710C
REPORT DATE: 12-10-86

SAMPLE IDENTIFICATION NUMBER: 00C0SWNW201125E005
SAMPLE TYPE: M-SLUDGE
COLLECTION SITE: ARCC-SINCLAIR - LANDFARM KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 5-86
TIME: 1505

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	75.5
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	75.5
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	75.5
HEXACHLOROBUTADIENE	NOT DETECTED	75.5
1,2,4-TRICHLOROBENZENE	NOT DETECTED	75.5
NAPTHALENE	176	75.5
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	75.5
2-CHLORONAPHTHALENE	NOT DETECTED	75.5
ACENAPHTHYLENE	NOT DETECTED	75.5
ACENAPHTHENE	NOT DETECTED	75.5
DIMETHYL PHTHALATE	NOT DETECTED	75.5
2,6-DINITROTOLUENE	NOT DETECTED	75.5
FLUORENE	119	75.5
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	75.5
2,4-DINITROTOLUENE	NOT DETECTED	75.5
DIETHYL PHTHALATE	NOT DETECTED	75.5
HEXACHLOROBENZENE	NOT DETECTED	75.5
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	75.5
PHENANTHRENE &/OR ANTHRACENE	654	75.5
DI-N-BUTYL PHTHALATE	187	75.5
FLUORANTHENE	NOT DETECTED	75.5
PYRENE	NOT DETECTED	75.5
BUTYL BENZYL PHTHALATE	NOT DETECTED	75.5
BIS(2-ETHYLHEXYL) PHTHALATE	174	75.5
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	75.5
DI-N-OCTYL PHTHALATE	NOT DETECTED	75.5
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	75.5
BENZO(A)PYRENE	NOT DETECTED	75.5
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	75.5
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	75.5
BENZO(G,H,I)PERYLENE	NOT DETECTED	75.5
2-METHYLNAPHTHALENE	770	75.5

COMMENT: THE PRIMARY COMPONENTS OF THIS SAMPLE ARE PETROLEUM HYDROCARBONS, BOTH THOSE INDICATIVE OF VOLATILE, LOW MOLECULAR WEIGHT FRACTIONS AND THOSE OF THE LOW VOLATILE, HIGH MOLECULAR WEIGHT FRACTIONS.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016700
REPORT DATE: 12-10-8

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000SWNW201125E005 SAMPLE TYPE: M-SLUDGE
COLLECTION SITE: ARCO-SINCLAIR - LANDFARM KC, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 1505

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ALDRIN	NOT DETECTED	4.7
ALPHA BHC	NOT DETECTED	4.7
BETA BHC	NOT DETECTED	4.7
DELTA BHC	NOT DETECTED	4.7
GAMMA BHC	NOT DETECTED	9.4
CHLORDANE	NOT DETECTED	47
P,P' DDD	NOT DETECTED	7.5
P,P' DDE	NOT DETECTED	3.8
P,P' DDT	NOT DETECTED	19
DIELDRIN	NOT DETECTED	9.4
ENDOSULFAN I	NOT DETECTED	3.8
ENDOSULFAN II	NOT DETECTED	3.8
ENDOSULFAN SULFATE	NOT DETECTED	19
ENDRIN	NOT DETECTED	19
HEPTACHLOR	NOT DETECTED	3.8
HEPTACHLOR EPOXIDE	NOT DETECTED	3.8
TOXAPHENE	NOT DETECTED	380
PCB-1016	NOT DETECTED	94
PCB-1221	NOT DETECTED	94
PCB-1232	NOT DETECTED	94
PCB-1242	NOT DETECTED	94
PCB-1248	NOT DETECTED	94
PCB-1254	NOT DETECTED	94
PCB-1260	NOT DETECTED	94
METHOXYCHLOR	320	

COMMENT: METHOXYCHLOR IS NOT A PRIORITY POLLUTANT PESTICIDE. IT IS, HOWEVER AN EP TOX PESTICIDE.

ANALYST: DENNIS L. DOBSON DLD

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT ERINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

RECEIVED
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LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

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Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM OEG ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO-A UpStream COLLECTION DEPTH _ _ . 2 FEET/METERS

Address Kansas City, Ks County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 00-00-NW-SW-20-11-25E- _ _ _
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean DATE 01-28-87 (MO DAY YR) TIME 1040 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☒ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☒ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 1/28 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address 321 BER

Name Mike Parhamck Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024150C
REPORT DATE: 2-27-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - A UPSTREAM, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 1-28-87
TIME: 1040

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	2.0
2-NITROPHENOL	NOT DETECTED	2.0
PHENOL	NOT DETECTED	2.0
2,4-DIMETHYLPHENOL	NOT DETECTED	2.0
2,4-DICHLOROPHENOL	NOT DETECTED	2.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	2.0
4-CHLORO-M-CRESOL	NOT DETECTED	2.0
2,4-DINITROPHENOL	NOT DETECTED	250
4,6-DINITRO-O-CRESOL	NOT DETECTED	50
PENTACHLOROPHENOL	NOT DETECTED	50
4-NITROPHENOL	NOT DETECTED	10.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER

ROGER M. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NCDC, LAWRENC

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 70241400
REPORT DATE: 2-27-87

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125F
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - A UPSTREAM, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 1-28-87
TIME: 1040

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	10
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	10
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	10
HEXACHLOROBUTADIENE	NOT DETECTED	10
1,2,4-TRICHLOROBENZENE	NOT DETECTED	10
NAPTHALENE	NOT DETECTED	10
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	10
2-CHLORONAPHTHALENE	NOT DETECTED	10
ACENAPHTHYLENE	NOT DETECTED	10
ACENAPHTHENE	NOT DETECTED	10
DIMETHYL PHTHALATE	NOT DETECTED	10
2,6-DINITROTOLUENE	NOT DETECTED	10
FLUORENE	NOT DETECTED	10
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	10
2,4-DINITROTOLUENE	NOT DETECTED	10
DIETHYL PHTHALATE	NOT DETECTED	10
HEXACHLOROBENZENE	NOT DETECTED	10
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	10
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	10
DI-N-BUTYL PHTHALATE	NOT DETECTED	10
FLUORANTHENE	NOT DETECTED	10
PYRENE	NOT DETECTED	10
BUTYL BENZYL PHTHALATE	NOT DETECTED	10
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	10
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	10
DI-N-OCTYL PHTHALATE	NOT DETECTED	10
BENZO(B) &/OR (K)FLUORANTHENE	NOT DETECTED	10
BENZO(A)PYRENE	NOT DETECTED	10
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	10
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	10
BENZO(G,H,I)PERYLENE	NOT DETECTED	10

COMMENT: TRACES OF HYDROCARBONS WERE INDICATED IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024130C
REPORT DATE: 2- 6-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - A UPSTREAM, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 1-28-87
TIME: 1040

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.025
ALPHA BHC	NOT DETECTED	0.025
BETA BHC	NOT DETECTED	0.050
DELTA BHC	NOT DETECTED	0.050
GAMMA BHC	NOT DETECTED	0.025
CHLORDANE	NOT DETECTED	0.25
P,P' DDD	NOT DETECTED	0.040
P,P' DDE	NOT DETECTED	0.020
P,P' DDT	NOT DETECTED	0.10
DIELDRIN	NOT DETECTED	0.050
ENDOSULFAN I	NOT DETECTED	0.020
ENDOSULFAN II	NOT DETECTED	0.020
ENDOSULFAN SULFATE	NOT DETECTED	0.10
ENDRIN	NOT DETECTED	0.10
HEPTACHLOR	NOT DETECTED	0.020
HEPTACHLOR EPOXIDE	NOT DETECTED	0.020
TOXAPHENE	NOT DETECTED	2.0
PCB-1016	NOT DETECTED	0.50
PCB-1221	NOT DETECTED	2.5
PCB-1232	NOT DETECTED	2.5
PCB-1242	NOT DETECTED	1.3
PCB-1248	NOT DETECTED	0.50
PCB-1254	NOT DETECTED	0.50
PCB-1260	NOT DETECTED	0.50

ANALYST: DENNIS L. DOBSON DLD

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

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DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

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FEB 02 1987

BUREAU OF ENVIRONMENTAL REMEDIATION

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB REPORT 37

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NWSW01125E SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - A UPSTREAM, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN DATE: 1-26-87 TIME: 1040

RESULTS OF ANALYSIS

PURGEABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.8
CHLOROETHANE	NOT DETECTED	0.7
DICHLOROMETHANE	NOT DETECTED	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	4.1	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	2.7	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.3
TRICHLOROETHYLENE	NOT DETECTED	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	0.3	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.6
BROMOFORM (THM)	NOT DETECTED	1.5
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.6
TETRACHLOROETHYLENE	NOT DETECTED	1.1
TOLUENE	0.7	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	NOT DETECTED	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

ENVIRONMENTAL ORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☒ WATER ☐ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - B Pipe COLLECTION DEPTH 2 FEET/METERS

Address Kansas City, Ks County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 0000-NNSW-20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR SLADE/BEAN DATE 01-28-87 (MO DAY YR) TIME 1030 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☒ PP Acids
☐ EP Toxicity - Pesticides	☒ PP Pesticides	☒ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 1/28 Received From [signature] Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address 321 BER

Name Mike Pachamek Address NEDO

Name _____ Address _____

7/86

RECEIVED

FEB 02 1987

BUREAU OF ENVIRONMENTAL REMEDIATION

DRAFT

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

GC/MS ANALYSIS REPORT

REPORT TO: RICK DEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 70242000
REPORT DATE: 1-29-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: DOLONW3-201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - E PIPE, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/DEAN
DATE: 1-23-87
TIME: 1030

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
CHLOROMETHANE	NOT DETECTED	5.0
BROMOMETHANE	NOT DETECTED	1.2
VINYL CHLORIDE	NOT DETECTED	0.[illegible]
CHLOROETHANE	NOT DETECTED	3.7
DICHLOROMETHANE	1660	0.9
1,1-DICHLOROETHYLENE	NOT DETECTED	0.6
1,1-DICHLOROETHANE	NOT DETECTED	0.5
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.5
TRICHLOROMETHANE (THM)	4.[illegible]	0.5
1,2-DICHLOROETHANE	NOT DETECTED	0.6
1,1,1-TRICHLOROETHANE	41.1	0.7
TETRACHLOROMETHANE	NOT DETECTED	0.7
BROMODICHLOROMETHANE (THM)	2.6	0.5
1,2-DICHLOROPROPANE	NOT DETECTED	0.4
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.[illegible]
TRICHLOROETHYLENE	27.1	0.6
BENZENE	NOT DETECTED	0.4
DIBROMOCHLOROMETHANE (THM)	0.9	0.7
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.9
1,1,2-TRICHLOROETHANE	NOT DETECTED	2.6
BROMOFORM (THM)	NOT DETECTED	1.5
~~1,1,2-TETRACHLOROETHANE~~	NOT DETECTED	0.6
TETRACHLOROETHYLENE	152	1.1
TOLUENE	32.6	0.4
CHLOROBENZENE	NOT DETECTED	0.4
ETHYLBENZENE	NOT DETECTED	0.7
META-XYLENE	1.2	0.6
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.6
1,3-DICHLOROBENZENE	NOT DETECTED	1.0
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	1.0

COMMENT: 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE WAS DETECTED.

ANALYST: RICHARD L. PIERCE RLP

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

PESTICIDE ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 70241600
REPORT DATE: 2-25-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - 6 PIPE, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/BEAN
DATE: 1-28-87
TIME: 1030

RESULTS OF ANALYSIS

PRIORITY POLLUTANT PESTICIDES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ALDRIN	NOT DETECTED	0.62
ALPHA BHC	NOT DETECTED	3.1
BETA BHC	NOT DETECTED	3.1
DELTA BHC	NOT DETECTED	3.1
GAMMA BHC	NOT DETECTED	3.1
CHLORDANE	NOT DETECTED	6.2
P,P' DDD	NOT DETECTED	1.0
P,P' DDE	NOT DETECTED	0.50
P,P' DDT	NOT DETECTED	2.5
DIELDRIN	NOT DETECTED	1.2
ENDOSULFAN I	NOT DETECTED	2.5
ENDOSULFAN II	NOT DETECTED	0.50
ENDOSULFAN SULFATE	NOT DETECTED	2.5
ENDRIN	NOT DETECTED	2.5
HEPTACHLOR	NOT DETECTED	0.50
HEPTACHLOR EPOXIDE	NOT DETECTED	0.50
TOXAPHENE	NOT DETECTED	50
PCB-1016	NOT DETECTED	12
PCB-1221	NOT DETECTED	52
PCB-1232	NOT DETECTED	12
PCB-1242	NOT DETECTED	12
PCB-1248	NOT DETECTED	12
PCB-1254	NOT DETECTED	12
PCB-1260	NOT DETECTED	12
METHOXYCHLOR	26	

ANALYST: DENNIS L. DOBSON

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024170C
REPORT DATE: 3- 5-87

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125E
SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - B PIPE, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/BEAN
DATE: 1-28-87
TIME: 1030

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
HEXACHLOROETHANE	NOT DETECTED	10
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	10
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	10
HEXACHLOROBUTADIENE	NOT DETECTED	10
1,2,4-TRICHLOROBENZENE	NOT DETECTED	10
NAPTHALENE	NOT DETECTED	10
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	10
2-CHLORONAPHTHALENE	NOT DETECTED	10
ACENAPHTHYLENE	NOT DETECTED	10
ACENAPHTHENE	NOT DETECTED	10
DIMETHYL PHTHALATE	NOT DETECTED	10
2,6-DINITROTOLUENE	NOT DETECTED	10
FLUORENE	NOT DETECTED	10
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	10
2,4-DINITROTOLUENE	NOT DETECTED	10
DIETHYL PHTHALATE	132	10
HEXACHLOROBENZENE	NOT DETECTED	10
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	10
PHENANTHRENE &/OR ANTHRACENE	15.8	10
DI-N-BUTYL PHTHALATE	32.5	10
FLUORANTHENE	NOT DETECTED	10
PYRENE	NOT DETECTED	10
BUTYL BENZYL PHTHALATE	NOT DETECTED	10
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	10
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	10
DI-N-OCTYL PHTHALATE	NOT DETECTED	10
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	10
BENZO(A)PYRENE	NOT DETECTED	10
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	10
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	10
BENZO(G,H,I)PERYLENE	NOT DETECTED	10
2-METHYLNAPHTHALENE	25.5	----

COMMENT: A LARGE QUANTITY OF BUTYL CELLOSOLVE AND HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG 321, TOPEKA, KS. 66620

LAB NUMBER: 7024180C
REPORT DATE: 3- 5-87

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 0000NWSW201125E SAMPLE TYPE: WATER
COLLECTION SITE: ARCO - 8 PIPE, KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: SLADE/BEAN DATE: 1-28-87 TIME: 1030

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (UG/L)	DETECTION LIMIT (UG/L)
ORTHO-CHLOROPHENOL	NOT DETECTED	2.0
2-NITROPHENOL	NOT DETECTED	2.0
PHENOL	45.4	2.0
2,4-DIMETHYLPHENOL	3.4	2.0
2,4-DICHLOROPHENOL	NOT DETECTED	2.0
2,4,6-TRICHLOROPHENOL	NOT DETECTED	2.0
4-CHLORO-M-CRESOL	NOT DETECTED	2.0
2,4-DINITROPHENOL	NOT DETECTED	250
4,6-DINITRO-O-CRESOL	NOT DETECTED	50
PENTACHLOROPHENOL	NOT DETECTED	50
4-NITROPHENOL	NOT DETECTED	10.0
ORTHO-CRESOL	38.2	----
PARA-CRESOL	64.5	----

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
MIKE PARHOMEK, NEDO, LAWRENCE

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

DRAFT

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM OFR ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - B1 COLLECTION DEPTH 3.5 FEET/METERS

Address Kansas City, Ks County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER ØØ-SE-SE-NW-2Ø-11-25E-___
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-03-86 (MO DAY YR) TIME 1259 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Routine Pesticides
- ☒ PP Volatiles
- ☐ Trihalomethanes
- ☐ PCB'S
- ☒ PP Acids
- ☐ EP Toxicity - Pesticides
- ☐ PP Pesticides
- ☒ PP Base Neutrals
- ☐ Other _____

Comments strong odor

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015460C
REPORT DATE: 11-26-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B1 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1259

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	0.4
2-NITROPHENOL	NOT DETECTED	0.4
PHENOL	NOT DETECTED	0.4
2,4-DIMETHYLPHENOL	NOT DETECTED	0.4
2,4-DICHLOROPHENOL	NOT DETECTED	0.4
2,4,6-TRICHLOROPHENOL	NOT DETECTED	0.4
4-CHLORO-M-CRESOL	NOT DETECTED	0.4
2,4-DINITROPHENOL	NOT DETECTED	10.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	2.0
PENTACHLOROPHENOL	NOT DETECTED	2.0
4-NITROPHENOL	NOT DETECTED	2.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015450C
REPORT DATE: 11-26-86

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - 81 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1259

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	2.0
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	2.0
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	2.0
HEXACHLOROBUTADIENE	NOT DETECTED	2.0
1,2,4-TRICHLOROBENZENE	NOT DETECTED	2.0
NAPTHALENE	NOT DETECTED	2.0
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	2.0
2-CHLORONAPHTHALENE	NOT DETECTED	2.0
ACENAPHTHYLENE	NOT DETECTED	2.0
ACENAPHTHENE	NOT DETECTED	2.0
DIMETHYL PHTHALATE	NOT DETECTED	2.0
2,6-DINITROTOLUENE	NOT DETECTED	2.0
FLUORENE	NOT DETECTED	2.0
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	2.0
2,4-DINITROTOLUENE	NOT DETECTED	2.0
DIETHYL PHTHALATE	NOT DETECTED	2.0
HEXACHLOROBENZENE	NOT DETECTED	2.0
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	2.0
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	2.0
DI-N-BUTYL PHTHALATE	NOT DETECTED	2.0
FLUORANTHENE	NOT DETECTED	2.0
PYRENE	NOT DETECTED	2.0
BUTYL BENZYL PHTHALATE	NOT DETECTED	2.0
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	2.0
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	2.0
DI-N-OCTYL PHTHALATE	NOT DETECTED	2.0
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	2.0
BENZO(A)PYRENE	NOT DETECTED	2.0
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	2.0
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	2.0
BENZO(G,H,I)PERYLENE	NOT DETECTED	2.0

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
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LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

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GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LRS NUMBER: 7015440C
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B1 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 3-86 TIME: 1259

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.41
BROMOMETHANE	NOT DETECTED	0.06
VINYL CHLORIDE	NOT DETECTED	0.11
CHLOROETHANE	NOT DETECTED	0.21
DICHLOROMETHANE	NOT DETECTED	0.02
1,1-DICHLOROETHYLENE	NOT DETECTED	0.01
1,1-DICHLOROETHANE	NOT DETECTED	0.01
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.01
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.01
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.02
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	NOT DETECTED	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.04
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	NOT DETECTED	0.01
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	NOT DETECTED	0.02
META-XYLENE	0.04	0.02
ORTHO &/OR PARA-XYLENE	0.04	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.02

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to: Division of Environment

Mail Samples to: Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER # 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM OFG ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - B2 COLLECTION DEPTH 3 - 4 FEET/METERS

Address Kansas City County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER ØØ-SE-SE-NW-2Ø-11-25E-

SAMPLE COLLECTOR Bean / Roth DATE 11-03-86 TIME 1330

MO DAY YR 24 HOUR

ANALYSIS REQUESTED:

☐ Purgable Organics ☐ Routine Pesticides ☒ PP Volatiles

☐ Trihalomethanes ☐ PCB'S ☐ PP Acids

☐ EP Toxicity - Pesticides ☐ PP Pesticides ☐ PP Base Neutrals

☐ Other _____

Comments strong odor

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015480C
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B2 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1330

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.41
BROMOMETHANE	NOT DETECTED	0.06
VINYL CHLORIDE	NOT DETECTED	0.11
CHLOROETHANE	NOT DETECTED	0.21
DICHLOROMETHANE	NOT DETECTED	0.02
1,1-DICHLOROETHYLENE	NOT DETECTED	0.01
1,1-DICHLOROETHANE	NOT DETECTED	0.01
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.01
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.01
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.02
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	NOT DETECTED	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.04
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	NOT DETECTED	0.01
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	NOT DETECTED	0.02
META-XYLENE	NOT DETECTED	0.02
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.02

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

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FOR LABORATORY USE ONLY

DATE RECEIVED_____ DATE REPORTED_____ LABORATORY NUMBER_____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other_____ ANALYTICAL CODE_____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other_____ Amount_____

REPORT TO: Rick Bean Address BER #321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other_____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other_____

COLLECTION SITE ARCO #23 COLLECTION DEPTH 3 - 8 FEET/METERS

Address KC, Kan County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER 00-SE-SE-NW-20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / Roth DATE 11-03-86 (MO DAY YR) TIME 1400 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☒ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☐ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☐ PP Base Neutrals

☐ Other_____

Comments_____

CHAIN OF CUSTODY

Date_____ Received From_____ Received By_____

Date_____ Received From_____ Received By_____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkley Address NSCO

Name_____ Address_____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701550CC
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - 83 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH
DATE: 11- 3-86
TIME: 1400

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.41
BROMOMETHANE	NOT DETECTED	0.06
VINYL CHLORIDE	NOT DETECTED	0.11
CHLOROETHANE	NOT DETECTED	0.21
DICHLOROMETHANE	NOT DETECTED	0.02
1,1-DICHLOROETHYLENE	NOT DETECTED	0.01
1,1-DICHLOROETHANE	NOT DETECTED	0.01
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.01
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.01
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.02
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	NOT DETECTED	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.04
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	NOT DETECTED	0.01
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	NOT DETECTED	0.02
META-XYLENE	NOT DETECTED	0.02
ORTHO &/OR PARA-XYLENE	NOT DETECTED	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.02

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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Kansas Department of Health and Environment
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Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

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FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address BER 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OEG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - B4 COLLECTION DEPTH 4.0 FEET/METERS

Address KC, Kan County Wyandotte

SITE - SAMPLE IDENTIFICATION NUMBER ØØ-SE-SE-NW 20-11-25E-
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean DATE 11-03-86 (MO DAY YR) TIME 1505 (24 HOUR)

ANALYSIS REQUESTED:

- ☐ Purgable Organics
- ☐ Trihalomethanes
- ☐ EP Toxicity - Pesticides
- ☐ Routine Pesticides
- ☐ PCB'S
- ☐ PP Pesticides
- ☒ PP Volatiles
- ☒ PP Acids
- ☒ PP Base Neutrals
- ☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date _____ Received From _____ Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name Emily Roth Address BER

Name Dwight Brinkley Address NEDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

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GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015576C
REPORT DATE: 11-10-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B4 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 11- 3-86
TIME: 1505

RESULTS OF ANALYSIS

PURGABLE ORGANICS	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
CHLOROMETHANE	NOT DETECTED	0.41
BROMOMETHANE	NOT DETECTED	0.06
VINYL CHLORIDE	NOT DETECTED	0.11
CHLOROETHANE	NOT DETECTED	0.21
DICHLOROMETHANE	NOT DETECTED	0.02
1,1-DICHLOROETHYLENE	NOT DETECTED	0.01
1,1-DICHLOROETHANE	NOT DETECTED	0.01
TRANS &/OR CIS 1,2-DICHLOROETHYLENE	NOT DETECTED	0.01
TRICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROETHANE	NOT DETECTED	0.02
1,1,1-TRICHLOROETHANE	NOT DETECTED	0.01
TETRACHLOROMETHANE	NOT DETECTED	0.02
BROMODICHLOROMETHANE (THM)	NOT DETECTED	0.01
1,2-DICHLOROPROPANE	NOT DETECTED	0.02
TRANS 1,3-DICHLOROPROPENE	NOT DETECTED	0.02
TRICHLOROETHYLENE	NOT DETECTED	0.02
BENZENE	NOT DETECTED	0.01
DIBROMOCHLOROMETHANE (THM)	NOT DETECTED	0.03
CIS 1,3-DICHLOROPROPENE	NOT DETECTED	0.03
1,1,2-TRICHLOROETHANE	NOT DETECTED	0.03
BROMOFORM (THM)	NOT DETECTED	0.05
1,1,2,2-TETRACHLOROETHANE	NOT DETECTED	0.04
TETRACHLOROETHYLENE	NOT DETECTED	0.02
TOLUENE	0.08	0.01
CHLOROBENZENE	NOT DETECTED	0.01
ETHYLBENZENE	NOT DETECTED	0.02
META-XYLENE	0.31	0.02
ORTHO &/OR PARA-XYLENE	0.26	0.02
1,3-DICHLOROBENZENE	NOT DETECTED	0.02
1,2 &/OR 1,4-DICHLOROBENZENE	NOT DETECTED	0.02

COMMENT: NUMEROUS HYDROCARBONS WERE PRESENT IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7015530C
REPORT DATE: 11-26-86

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B4 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 11- 3-86
TIME: 1505

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	0.8
2-NITROPHENOL	NOT DETECTED	0.8
PHENOL	NOT DETECTED	0.8
2,4-DIMETHYLPHENOL	NOT DETECTED	0.8
2,4-DICHLOROPHENOL	NOT DETECTED	0.8
2,4,6-TRICHLOROPHENOL	NOT DETECTED	0.8
4-CHLORO-M-CRESOL	NOT DETECTED	0.8
2,4-DINITROPHENOL	NOT DETECTED	20.0
4,6-DINITRO-O-CRESOL	NOT DETECTED	4.0
PENTACHLOROPHENOL	NOT DETECTED	4.0
4-NITROPHENOL	NOT DETECTED	4.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 701552
REPORT DATE: 11-26-

SAMPLE IDENTIFICATION NUMBER: 00SESENW201125E
SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - 84 KANSAS CITY, KS. WYANDOTTE CO.
COLLECTED BY: BEAN
DATE: 11- 3-86
TIME: 15

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMI (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	4.0
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	4.0
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	4.0
HEXACHLOROBUTADIENE	NOT DETECTED	4.0
1,2,4-TRICHLOROBENZENE	NOT DETECTED	4.0
NAPTHALENE	NOT DETECTED	4.0
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	4.0
2-CHLORONAPHTHALENE	NOT DETECTED	4.0
ACENAPHTHYLENE	NOT DETECTED	4.0
ACENAPHTHENE	NOT DETECTED	4.0
DIMETHYL PHTHALATE	NOT DETECTED	4.0
2,6-DINITROTOLUENE	NOT DETECTED	4.0
FLUORENE	NOT DETECTED	4.0
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	4.0
2,4-DINITROTOLUENE	NOT DETECTED	4.0
DIETHYL PHTHALATE	NOT DETECTED	4.0
HEXACHLOROBENZENE	NOT DETECTED	4.0
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	4.0
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	4.0
DI-N-BUTYL PHTHALATE	NOT DETECTED	4.0
FLUORANTHENE	NOT DETECTED	4.0
PYRENE	NOT DETECTED	4.0
BUTYL BENZYL PHTHALATE	NOT DETECTED	4.0
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	4.0
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	4.0
DI-N-OCTYL PHTHALATE	NOT DETECTED	4.0
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	4.0
BENZO(A)PYRENE	NOT DETECTED	4.0
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	4.0
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	4.0
BENZO(G,H,I)PERYLENE	NOT DETECTED	4.0

COMMENT: LOW LEVELS OF HYDROCARBONS WERE INDICATED IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: EMILY ROTH, FORBES BLDG 321
DWIGHT BRINKLEY, NEDO

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ENVIRONMENTAL
REMEDIATION

ENVIRONMENTAL ORGANIC LABORATORY

Kansas Department of Health and Environment
Laboratory Services and Research
Forbes Building #740, Topeka, Kansas 66620-8420
(913) 862-9360

Address Inquiries to:
Division of Environment

Mail Samples to:
Environmental Laboratories

SAMPLE COLLECTION FORM

Typewrite or Print Plainly (Soft Pencil or Black Ink)

DRAFT

FOR LABORATORY USE ONLY

DATE RECEIVED _____ DATE REPORTED _____ LABORATORY NUMBER _____

MODE OF RECEIPT: ☐ Mail ☐ Personal Delivery ☐ Other _____ ANALYTICAL CODE _____

CONTAINER: ☐ 40cc Vial ☐ Gallon Jug ☐ Pint Jar ☐ Other _____ Amount _____

REPORT TO: Rick Bean Address Ber 321

ACCOUNT CODE (circle): PWS PWSTM PWSPS SSN USGS FK WQ WP WM (OFG) ET Other _____

SAMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT ☐ OIL ☐ AIR ☐ Other _____

COLLECTION SITE ARCO - B5 COLLECTION DEPTH 1 - 8 FEET/METERS

Address KC, KAN County WY

SITE - SAMPLE IDENTIFICATION NUMBER _ _ - SW - NE - NW - 20 - 11 - 25 E - 0 0 1
(¼ ¼ ¼ ¼ S T R)

SAMPLE COLLECTOR Bean / ROTH DATE 11-05-86 (MO DAY YR) TIME 13 (24 HOUR)

ANALYSIS REQUESTED:

☐ Purgable Organics	☐ Routine Pesticides	☐ PP Volatiles
☐ Trihalomethanes	☐ PCB'S	☒ PP Acids
☐ EP Toxicity - Pesticides	☐ PP Pesticides	☒ PP Base Neutrals

☐ Other _____

Comments _____

CHAIN OF CUSTODY

Date 11/5 Received From R Bean Received By _____

Date _____ Received From _____ Received By _____

SEND COPY OF REPORT TO:

Name E. Ruth Address Ber

Name D. Berkley Address OVSDO

Name _____ Address _____

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016740
REPORT DATE: 12-10-

SAMPLE COLLECTION INFORMATION

SAMPLE IDENTIFICATION NUMBER: 00SWNENW201125E001 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCO - B5 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 134

RESULTS OF ANALYSIS

PRIORITY POLLUTANT ACID EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMI (MG/KG)
ORTHO-CHLOROPHENOL	NOT DETECTED	9.6
2-NITROPHENOL	NOT DETECTED	9.6
PHENOL	NOT DETECTED	9.6
2,4-DIMETHYLPHENOL	NOT DETECTED	9.6
2,4-DICHLOROPHENOL	NOT DETECTED	9.6
2,4,6-TRICHLOROPHENOL	NOT DETECTED	9.6
4-CHLORO-M-CRESOL	NOT DETECTED	9.6
2,4-DINITROPHENOL	NOT DETECTED	240
4,6-DINITRO-O-CRESOL	NOT DETECTED	48.0
PENTACHLOROPHENOL	NOT DETECTED	48.0
4-NITROPHENOL	NOT DETECTED	48.0

NOTE: 2,6-DICHLOROPHENOL IF PRESENT, IS CALCULATED AS 2,4-DICHLOROPHENOL.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
ENVIRONMENTAL ORGANIC LABORATORY
TOPEKA, KANSAS 66620

DRAFT

GC/MS ANALYSIS REPORT

REPORT TO: RICK BEAN
ADDRESS: FORBES BLDG. 321, TOPEKA, KS. 66620

LAB NUMBER: 7016730
REPORT DATE: 12-10-8

SAMPLE IDENTIFICATION NUMBER: 00SWNENW201125E001 SAMPLE TYPE: SOIL
COLLECTION SITE: ARCC - 85 KC, KAN. WYANDOTTE CO.
COLLECTED BY: BEAN/ROTH DATE: 11- 5-86 TIME: 134

PRIORITY POLLUTANT BASE NEUTRAL EXTRACTABLES	CONCENTRATION (MG/KG)	DETECTION LIMIT (MG/KG)
HEXACHLOROETHANE	NOT DETECTED	48.0
BIS(2-CHLOROETHYL)ETHER	NOT DETECTED	48.0
BIS(2-CHLOROISOPROPYL)ETHER	NOT DETECTED	48.0
HEXACHLOROBUTADIENE	NOT DETECTED	48.0
1,2,4-TRICHLOROBENZENE	NOT DETECTED	48.0
NAPTHALENE	NOT DETECTED	48.0
BIS(2-CHLOROETHOXY)METHANE	NOT DETECTED	48.0
2-CHLORONAPHTHALENE	NOT DETECTED	48.0
ACENAPHTHYLENE	NOT DETECTED	48.0
ACENAPHTHENE	NOT DETECTED	48.0
DIMETHYL PHTHALATE	NOT DETECTED	48.0
2,6-DINITROTOLUENE	NOT DETECTED	48.0
FLUORENE	NOT DETECTED	48.0
4-CHLOROPHENYL PHENYL ETHER	NOT DETECTED	48.0
2,4-DINITROTOLUENE	NOT DETECTED	48.0
DIETHYL PHTHALATE	NOT DETECTED	48.0
HEXACHLOROBENZENE	NOT DETECTED	48.0
4-BROMOPHENYL PHENYL ETHER	NOT DETECTED	48.0
PHENANTHRENE &/OR ANTHRACENE	NOT DETECTED	48.0
DI-N-BUTYL PHTHALATE	NOT DETECTED	48.0
FLUORANTHENE	NOT DETECTED	48.0
PYRENE	NOT DETECTED	48.0
BUTYL BENZYL PHTHALATE	NOT DETECTED	48.0
BIS(2-ETHYLHEXYL) PHTHALATE	NOT DETECTED	48.0
CHRYSENE &/OR BENZO(A)ANTHRACENE	NOT DETECTED	48.0
DI-N-OCTYL PHTHALATE	NOT DETECTED	48.0
BENZO<(B) &/OR (K)>FLUORANTHENE	NOT DETECTED	48.0
BENZO(A)PYRENE	NOT DETECTED	48.0
INDENO(1,2,3-C,D)PYRENE	NOT DETECTED	48.0
DIBENZO(A,H)ANTHRACENE	NOT DETECTED	48.0
BENZO(G,H,I)PERYLENE	NOT DETECTED	48.0

COMMENT: NUMEROUS LOW LEVELS OF HYDROCARBONS WERE INDICATED IN THIS SAMPLE.

ANALYST: SUSAN J. SNYDER SJS

ROGER H. CARLSON, PH.D., DIRECTOR

COPY TO: DWIGHT BRINKLEY, NEDO
EMILY ROTH, FORBES BLDG 321

ENVIRONMENTAL INORGANIC LABORATORY

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
FORBES BLDG. 740, TOPEKA, KANSAS 66620-8420

Lab No. _____
Acct Code _____

SAMPLE COLLECTION FORM

DRAFT

END REPORT TO Rick Bean

ddress BSR 321

OLLECTION SITE Arco B6 COLLECTION DEPTH 3. FEET/METE

ddress KC Kan, Fairlawn's Ave. COUNTY WY

ITE OR SAMPLE IDENTIFICATION NUMBER: __-NW-SE-NW-20-11-25E-00
(1/4 1/4 1/4 1/4 S T R)

AMPLE COLLECTOR Bean / Roth DATE 11-05-86 (MO DAY YR) TIME 1400 (24 HOUR)

OTTLE NOS.: CHEM ____ DO ____ NUT ____ HM B6 CN ____ O & G ____ PHENOL ____

AMPLE DESCRIPTION: ☐ WATER ☒ SOIL ☐ SEDIMENT/SLUDGE ☐ AIR ☐ OIL/GREASE ☐ SOLID ☐ LIQU

NALYSIS REQUESTED:

- ☐ Heavy Metals
- ☒ EP Toxicity (Soil and Solid Samples)
- ☐ Partial Mineral
- ☐ Partial Mineral Plus Heavy Metals
- ☐ Complete Mineral
- ☐ Complete Mineral Plus Heavy Metals
- ☐ Other _____

omments About Samples _____

HAIN OF CUSTODY:

Date 11/6 Received From R Bean Received by _____

Date _____ Received From _____ Received by _____

DDITIONAL REPORTS ROUTED TO:

Name E Roth Address BSR

Name D Brinkley Address NEDO

Name _____ Address _____

SR 2/86

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
LABORATORY SERVICES AND RESEARCH
INORGANIC CHEMISTRY LABORATORY
TOPEKA, KANSAS 66620-8420

DRAFT

RESULTS OF LABORATORY ANALYSIS

REPORT TO: RICK BEAN, BER
ADDRESS: BLDG. 321

LAB NUMBER: 701112PT
ACCOUNT CODE: OFG
MATRIX: SOIL

LOCALITY: ARCO 36,FAIRBANKS AVE., KANSAS CITY, KS TIME COLLECTED: 1400

COLLECTED BY: BEAN/ROTH DATE COLLECTED: 11- 5-86

SAMPLE ID: NWSENW201125EC02 DATE-RECEIVED: 11- 6-86

COMMENTS: DATE REPORTED: 12- 9-86
ACID LEACH ANALYSIS COMPLETE

* *

RESULTS EXPRESSED IN MILLIGRAMS/KILOGRAM

TOTAL HARD.	NA	PH	NA	IRON	NA
(CACO3)		TURBIDITY	NA	MANGANESE	NA
CALCIUM	NA	SPECIFIC COND.	NA	ARSENIC	0.038
MAGNESIUM	NA	T. DISSOLVED SOLIDS	NA	BARIUM	108.07
SODIUM	NA	TOTAL PHOSPHORUS (P)	NA	CADMIUM	1.000
POTASSIUM	NA	SILICA (SIO2)	NA	CHROMIUM	7.20
		BORON	NA	COPPER	10.99
TOTAL ALK.	NA	DISSOLVED OXYGEN	NA	LEAD	24.000
(CACO3)		BOD	NA	MERCURY	ND
CHLORIDE	NA	COD	NA	SELENIUM	ND
SULFATE	NA	AMMONIA (N)	NA	SILVER	0.500
NITRATE (N)	NA	T. SUS. SOLIDS	NA	ZINC	76.09
FLUORIDE	NA			ALUMINUM	NA
				BERYLLIUM	NA
CYANIDES	NA	CARBONATE HARDNESS	NA	NICKEL	NA
OIL/GREASE	NA	NON-CARBONATE HARD.	NA	ANTIMONY	NA
PHENOLS	NA	NAHCO3 ALKALINITY	NA	THALLIUM	NA
TDP	NA	MBAS	NA		
SULFIDE	NA	FLASH POINT	NA		

CHEMIST: FD NA - NOT ANALYZED ND - NOT DETECTED

* *

COPY TO: FILE
E. ROTH, BER
DWIGHT BRINKLEY, NEDO

RECEIVED
DEC 10 1986
BUREAU OF ENVIRONMENTAL REMEDIATION

DRAFT

8. PICTURES

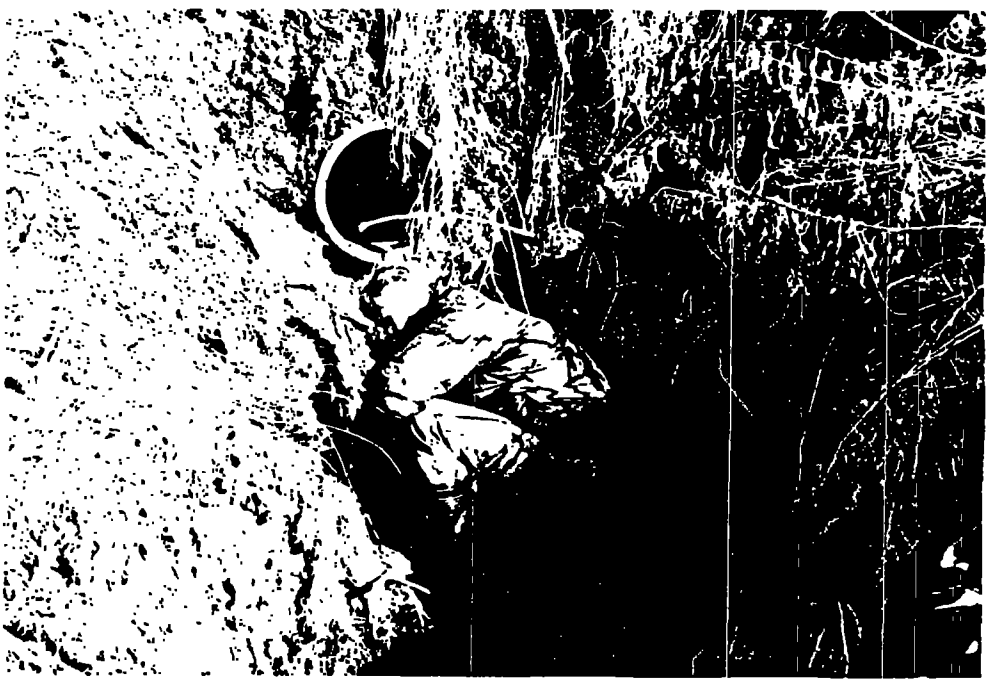
DRAFT

Picture of oil separator and drainage. Picture to the north.

Drainage tube from Arco/Sinclair/Dymon property.

DRAFT

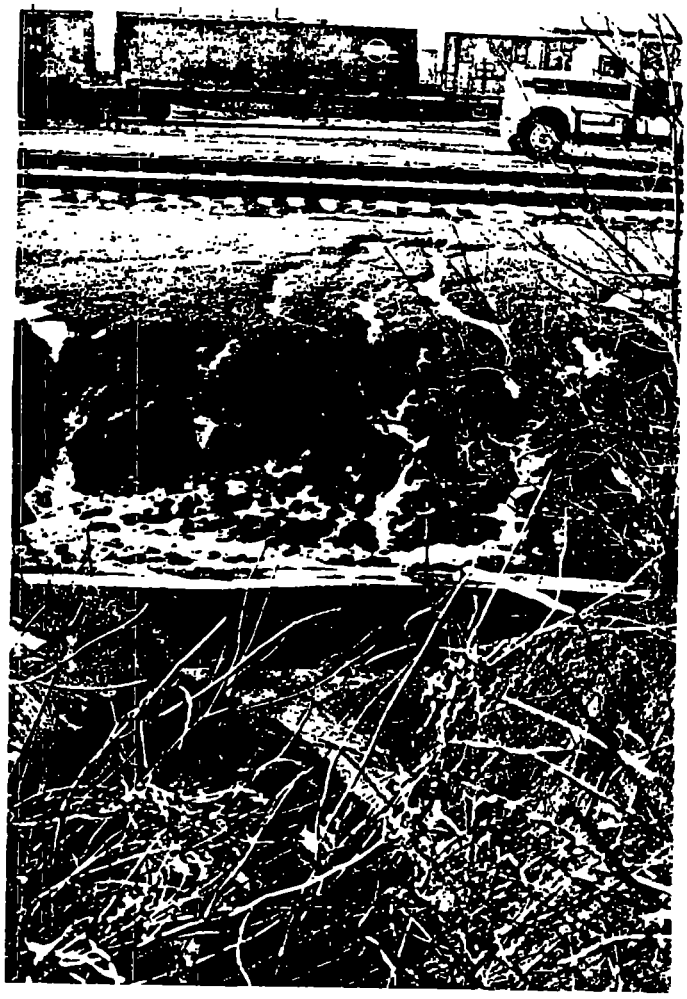
Off site drainage to the Kansas River.



Drainage tube from Arco/Sinclair/Dymon property.

DRAFT

Drainage tube from Arco/Sinclair/ Dymon property.



Off site drainage to the Kansas River.

DRAFT

9. DRILLING LOGS

1 LOCATION OF WATER WELL: County: WYANDOTTE | Fraction: NW ¼ SE ¼ NW ¼ | Section Number: 20 | Township Number: T 11 S | R — E/W

Distance and direction from nearest town or city street address of well if located within city?

3600 KANSAS AVE – KANSAS City

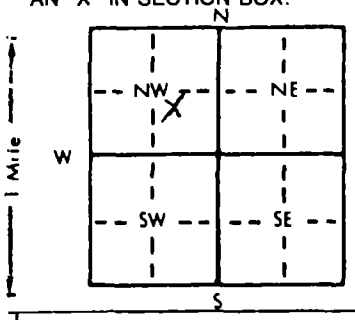
2 WATER WELL OWNER: KDHE

RR#, St. Address, Box #:

City, State, ZIP Code:

Board of Agriculture, Division of Water Resources Application Number:

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL 36.33 ft. ELEVATION 753.55 LPK

Depth(s) Groundwater Encountered 1. 27 ft. 2. ft. 3. ft

WELL'S STATIC WATER LEVEL 29.27 ft. below land surface measured on mo/day/yr 1/27/91

Pump test data: Well water was ft. after hours pumping gpm

Est. Yield gpm: Well water was ft. after hours pumping gpm

Bore Hole Diameter 8 in. to 36.33 ft., and in to ft

WELL WATER TO BE USED AS: 1 Domestic 2 Irrigation 3 Feedlot 4 Industrial 5 Public water supply 6 Oil field water supply 7 Lawn and garden only 8 Air conditioning 9 Dewatering 10 Observation well 11 Injection well 12 Other (Specify below)

Was a chemical/bacteriological sample submitted to Department? Yes No; If yes, mo/day/yr sample was submitted 11/06/86 Water Well Disinfected? Yes No

5 TYPE OF BLANK CASING USED: 1 Steel 2 PVC 3 RMP (SR) 4 ABS 5 Wrought iron 6 Asbestos-Cement 7 Fiberglass 8 Concrete tile 9 Other (specify below)

CASING JOINTS: Glued Clamped Welded Threaded

Blank casing diameter 2 in. to 26.33 ft., Dia in. to ft., Dia in to ft.

Casing height above land surface 22 in., weight lbs./ft. Wall thickness or gauge No

TYPE OF SCREEN OR PERFORATION MATERIAL: 1 Steel 2 Brass 3 Stainless steel 4 Galvanized steel 5 Fiberglass 6 Concrete tile 7 PVC 8 RMP (SR) 9 ABS 10 Asbestos-cement 11 Other (specify) 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE: 1 Continuous slot 2 Louvered shutter 3 Mill slot 4 Key punched 5 Gauzed wrapped 6 Wire wrapped 7 Torch cut 8 Saw cut 9 Drilled holes 10 Other (specify) 11 None (open hole)

SCREEN-PERFORATED INTERVALS: From 26.33 ft. to 36.33 ft., From ft. to ft

From ft. to ft., From ft. to ft.

GRAVEL PACK INTERVALS: From 25 ft. to 36.33 ft., From ft. to ft.

From ft. to ft., From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other

Grout Intervals: From 0 ft. to 10 ft., From 23 ft. to 25 ft., From ft. to ft

What is the nearest source of possible contamination: 1 Septic tank 2 Sewer lines 3 Watertight sewer lines 4 Lateral lines 5 Cess pool 6 Seepage pit 7 Pit privy 8 Sewage lagoon 9 Feedyard 10 Livestock pens 11 Fuel storage 12 Fertilizer storage 13 Insecticide storage 14 Abandoned water well 15 Oil well/Gas well 16 Other (specify below)

Direction from well? West How many feet? 600

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHOLOGIC LOG
0	1	black organic clay, top soil			
1	5	Grey to brown clay some silt			
5	12	Light brown to tan, very fine to fine sand			
12	26	light brown sand, fine to medium			
26	36.3	light brown to tan, fine to very coarse sand			

DRAFT

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 10/23/86 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. This Water Well Record was completed on (mo/day/yr) 2/27/90 under the business name of KDHE by (signature)

INSTRUCTIONS: Use typewriter or ball point pen. *PLEASE PRESS FIRMLY* and *PRINT* clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water Protection, Topeka, Kansas 66620-7320, Telephone: 913-862-9360. Send one to WATER WELL OWNER and retain one for your records.

DRILLING FORM

DRAFT

PROJECT SITE Arco/Sinclair/Dymon

LEGAL LOCATION NW 20-11S-25E

WELL ALIAS Arco 1 DATE 10/23/86

DRILLER Slade LOGGED BY Bean

DRILLING METHOD continuous flight auger HOLE SIZE 8"

CASING DETAILS 2" threaded PVC casing to 26.33'
continuous slot screen from 26.33'-36.33'

GROUTING DETAILS 0-10' cement grout 23'-24' bentonite

WELL EVACUATION DETAILS 5 casing volumes with Homelite pump

G.L.ELEV. 753.55' STATIC WATER LEVEL 29.27' 1/27/87

SCREENED INTERVALS 26.33'-36.33'

LITHOLOGY

DRAFT

	Casing	Log	Description	Remarks
			0 top soil	
cement grout			grey to brown clay	
			5	
			light brown fine to medium sand	
			10	
gravel pack				
			15	
			20	
bentonite				
			25	Moisture @ 26'
				Water @ 27'
gravel pack			light brown coarse sand and gravel	
			30	
			35	
			36.3	
			40	

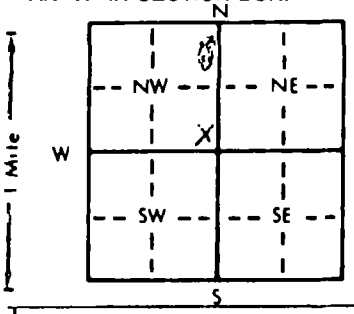
County: [illegible] | T [illegible] S | R [illegible] E/W

Distance and direction from nearest town or city street address of well if located within city?
3600 Kansas Ave, Kansas City Arco #2

2 WATER WELL OWNER: KDHE
RR#, St. Address, Box # :
City, State, ZIP Code :

Board of Agriculture, Division of Water Resources
Application Number

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL 27.6 ft ELEVATION: 752.94 TOP

Depth(s) Groundwater Encountered 1. 5 ft. 2. ft 3. ft.

WELL'S STATIC WATER LEVEL 21.83 ft. below land surface measured on mo/day/yr 11/14/86

Pump test data: Well water was ft. after hours pumping gpm

Est. Yield gpm: Well water was ft. after hours pumping gpm

Bore Hole Diameter 8 in. to 27.6 ft., and in to ft.

WELL WATER TO BE USED AS: 1 Domestic 2 Irrigation 3 Feedlot 4 Industrial 5 Public water supply 6 Oil field water supply 7 Lawn and garden only 8 Air conditioning 9 Dewatering 10 Observation well 11 Injection well 12 Other (Specify below)

Was a chemical/bacteriological sample submitted to Department? Yes No; If yes, mo/day/yr sample was submitted 11/05/86 Water Well Disinfected? Yes No

5 TYPE OF BLANK CASING USED: 1 Steel 2 PVC 3 RMP (SR) 4 ABS 5 Wrought iron 6 Asbestos-Cement 7 Fiberglass 8 Concrete tile 9 Other (specify below)

CASING JOINTS: Glued Clamped Welded Threaded

Blank casing diameter 2 in. to 27.6 ft., Dia in. to ft., Dia in. to ft

Casing height above land surface 27 in., weight lbs./ft. Wall thickness or gauge No

TYPE OF SCREEN OR PERFORATION MATERIAL: 1 Steel 2 Brass 3 Stainless steel 4 Galvanized steel 5 Fiberglass 6 Concrete tile 7 PVC 8 RMP (SR) 9 ABS 10 Asbestos-cement 11 Other (specify) 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE: 1 Continuous slot 2 Louvered shutter 3 Mill slot 4 Key punched 5 Gauzed wrapped 6 Wire wrapped 7 Torch cut 8 Saw cut 9 Drilled holes 10 Other (specify) 11 None (open hole)

SCREEN-PERFORATED INTERVALS: From 17.6 ft. to 27.6 ft., From ft. to ft.
From ft. to ft., From ft. to ft.

GRAVEL PACK INTERVALS: From 10 ft. to 27.6 ft., From ft. to ft.
Hole collapsed
From ft. to ft., From ft. to ft

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other

Grout Intervals: From 0 ft. to 9 ft., From 9 ft. to 10 ft., From ft to ft.

What is the nearest source of possible contamination: 1 Septic tank 2 Sewer lines 3 Watertight sewer lines 4 Lateral lines 5 Cess pool 6 Seepage pit 7 Pit privy 8 Sewage lagoon 9 Feedyard 10 Livestock pens 11 Fuel storage 12 Fertilizer storage 13 Insecticide storage 14 Abandoned water well 15 Oil well/Gas well 16 Other (specify below)

Direction from well? West How many feet? 100

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHOLOGIC LOG
0	.5	Sandy Clay fill			
.5	5	fine to medium tan to light brown sand			
5	10	blue grey clay			
10	16	fine to medium sand some clay			
16	21	fine to medium sand			
21	27.6	Medium to coarse brownish green sand			

DRAFT

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 10/24/86 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. This Water Well Record was completed on (mo/day/yr) 11/21/86 under the business name of KDHE by (signature)

INSTRUCTIONS: Use typewriter or ball point pen PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water Protection, Topeka, Kansas 66620-7320, Telephone 913-862-9360. Send one to WATER WELL OWNER and retain one for your records.

DRILLING FORM

DRAFT

PROJECT SITE Arco/Sinclair/Dymon

LEGAL LOCATION NW 20-11S-25E

WELL ALIAS Arco 2 DATE 10/24/86

DRILLER Slade LOGGED BY Bean

DRILLING METHOD continuous flight auger HOLE SIZE 8"

CASING DETAILS 2" threaded PVC casing to 17.6'
continuous slot screen from 17.6'-27.6'

GROUTING DETAILS 0-9' cement grout 9'-10' bentonite

WELL EVACUATION DETAILS 5 casing volumes with Homelite pump

G.L.ELEV. 752.02 STATIC WATER LEVEL 21.83' 11/04/86

SCREENED INTERVALS 17.6'-27.6'

LITHOLOGY

DRAFT

	Casing	Log	Description	Remarks
			0 sandy clay fill	
cement grout			fine to medium tan sand some water	moisture @2' water @5'
			5 blue grey clay	strong odor HNU = 2 ppm
bentonite			10	HNU = 10 ppm
gravel pack			fine to medium sand 15	HNU = 10 ppm
			20 brownish green medium to coarse sand and gravel 25	
			27.6	HNU = 27 ppm
			30	

DRILLING FORM

DRAFT

PROJECT SITE Arco/Sinclair/Dymon

LEGAL LOCATION NW 20-11S-25E

WELL NUMBER Arco 3 DATE 10/28/86

DRILLER Slade LOGGED BY Brinkley

DRILLING METHOD continuous flight auger HOLE SIZE 8"

CASING DETAILS 2" threaded PVC casing to 15' and 30' to 70'
continuous slot screen from 15' to 30' and 70' to 75'

GROUTING DETAILS 0-10' cement grout 10'-11' bentonite

WELL EVACUATION DETAILS 5 casing volumes with Homelite pump

G.L.ELEV. 753.69 STATIC WATER LEVEL 21' 10/28/86

SCREENED INTERVALS 15'-30' 70'-75'

1 LOCATION OF WATER WELL | Fraction | Section Number | Township Number | Range Number

County: Wyandotte | SE ¼ NE ¼ NW ¼ | 20 | T 11 S | R EW

Distance and direction from nearest town or city street address of well if located within city?

3600 Kansas Ave, Kansas City Arco #3

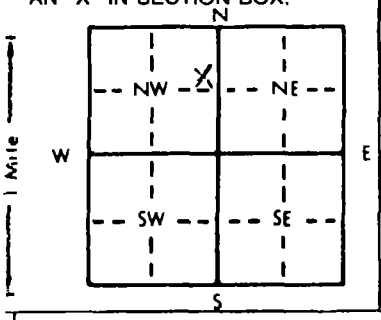
2 WATER WELL OWNER: KDHE

RR#, St. Address, Box # :

City, State, ZIP Code :

Board of Agriculture, Division of Water Resources Application Number

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL. 75 ft. ELEVATION 753.6.9 T.O.P.

Depth(s) Groundwater Encountered 1. 10 ft. 2. ft 3 ft.

WELL'S STATIC WATER LEVEL 21 ft. below land surface measured on mo/day/yr 10/28/86

Pump test data: Well water was ft. after hours pumping gpm

Est. Yield gpm: Well water was ft. after hours pumping gpm

Bore Hole Diameter 8 in to 75 ft, and in to ft

WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well

1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)

2 Irrigation 4 Industrial 7 Lawn and garden only (10 Observation well)

Was a chemical/bacteriological sample submitted to Department? Yes No If yes, mo/day/yr sample was submitted 11/06/86 Water Well Disinfected? Yes No

5 TYPE OF BLANK CASING USED: 5 Wrought iron 8 Concrete tile CASING JOINTS: Glued Clamped

1 Steel 3 RMP (SR) 6 Asbestos-Cement 9 Other (specify below) Welded

(2 PVC) 4 ABS 7 Fiberglass (Threaded)

Blank casing diameter 2 in. to 15 ft., Dia 2 in. to 70 ft., Dia in to ft

Casing height above land surface 18 in., weight lbs./ft. Wall thickness or gauge No.

TYPE OF SCREEN OR PERFORATION MATERIAL (7 PVC) 10 Asbestos-cement

1 Steel 3 Stainless steel 5 Fiberglass 8 RMP (SR) 11 Other (specify)

2 Brass 4 Galvanized steel 6 Concrete tile 9 ABS 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE. 5 Gauzed wrapped 8 Saw cut 11 None (open hole)

(1 Continuous slot) 3 Mill slot 6 Wire wrapped 9 Drilled holes

2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify)

SCREEN-PERFORATED INTERVALS: From 15 ft. to 30 ft, From ft. to ft.

From 70 ft. to 75 ft., From ft. to ft

GRAVEL PACK INTERVALS: From 11 ft. to 75 ft., From ft to ft.

From ft. to ft., From ft to ft

6 GROUT MATERIAL: 1 Neat cement (2 Cement grout) (3 Bentonite) 4 Other

Grout Intervals: From 0 ft. to 10 ft., From 10 ft. to 11 ft., From ft to ft

What is the nearest source of possible contamination. 10 Livestock pens 14 Abandoned water well

1 Septic tank 4 Lateral lines 7 Pit privy (11 Fuel storage) 15 Oil well/Gas well

2 Sewer lines 5 Cess pool 8 Sewage lagoon 12 Fertilizer storage 16 Other (specify below)

3 Watertight sewer lines 6 Seepage pit 9 Feedyard 13 Insecticide storage

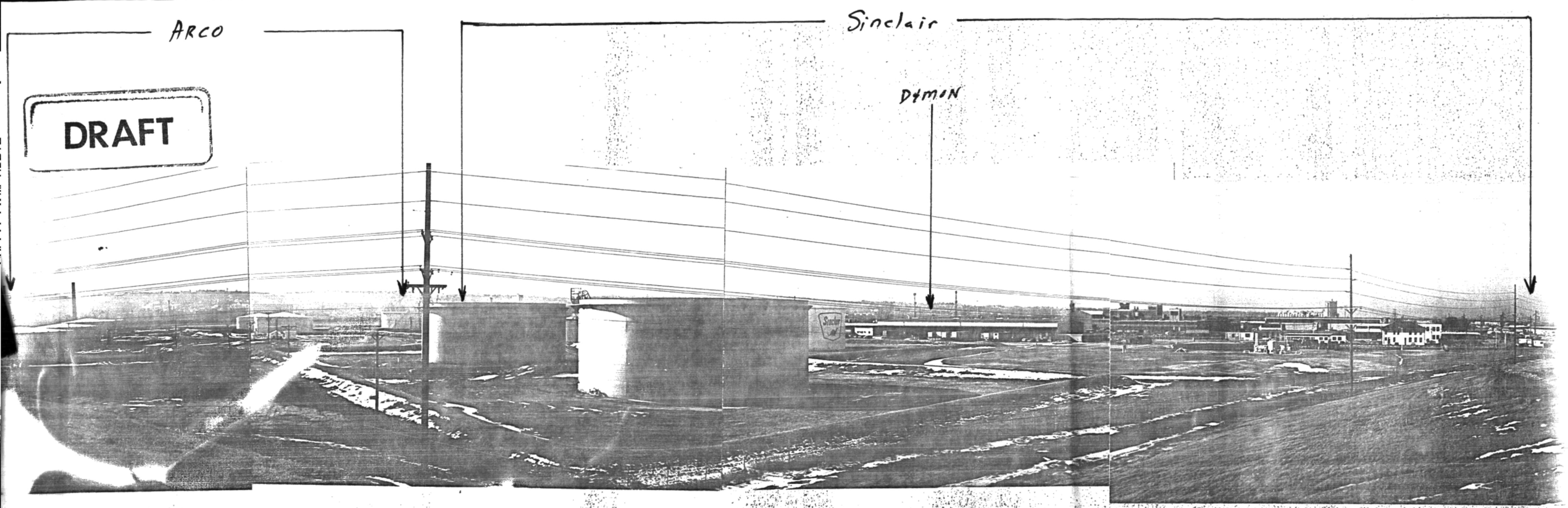
Direction from well? NE of How many feet? 660

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHOLOGIC LOG
0	2	fine sand			
2	3	brown silt			
3	24	greenish black sand			
24	27	fine sand and silt grey in color			
27	55	grey sand and gravel			
55	71	Very coarse gravel			
71	74	Coarse gravel, pebbles and cobble			
74	75	Limestone			

DRAFT

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 10/28/86 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. This Water Well Record was completed on (mo/day/yr) under the business name of KDHE by (signature)

INSTRUCTIONS: Use typewriter or ball point pen. *PLEASE PRESS FIRMLY* and *PRINT* clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water Protection, Topeka, Kansas 66620-7320, Telephone 913-862-9360. Send one to WATER WELL OWNER and retain one for your records.



Panoramic view of the Arco/Sinclair/
Dymon Facility, looking south.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Northeast District Office - Lawrence

M E M O R A N D U M

Arco Petroleum
KSD980632194
17.9
11-7-85

TO: DON CARLSON

FROM: JOEL RIFE Joel

DATE: NOVEMBER 7, 1985

SUBJECT: SINCLAIR MARKETING, INC / DYMON INC., KANSAS CITY

Vic Montgomery and I met W.A. Harrington of Sinclair on November 5. This facility is located on Kansas Avenue immediately west of the river bridge being rehabilitated. Sinclair discharges only domestic wastewater to a septic tank and uncontaminated runoff. Dymon Inc. rents their building from Sinclair. Harrington informed us the contract requires Dymon to be responsible for any environmental problems they create.

Dymon manufactures and packages commercial strength cleaners, herbicides and insecticides. They discharge mixing vat rinsate to an old crude separator remaining from the Sinclair refinery which was retired in the '40's. It is manually pumped out as needed.

Please disregard my statement in a January 21, 1981 memo that there is minimal environmental threat from this discharge. This is an extremely offensive discharge of black, brown and normally white discolored water. It smelled like dispersant surfactant. A pesticide sample and VOC sample was taken and delivered to the lab on November 6.

Dymon contact: David Jones 321-5537
Harrington: 321-4300

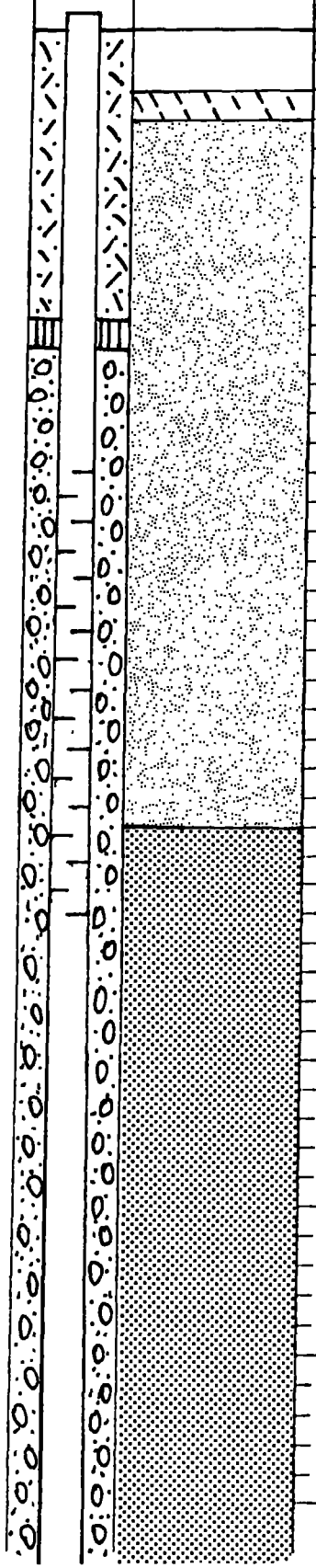
:gz

c: Bureau of Water Protection
NED - K.C. 7.0 - Sinclair / Dymon ✔

RECEIVED
NOV 7 1986
BUREAU OF
ENVIRONMENTAL
REMEDIATION

LITHOLOGY

	Casing	Log	Description	Remarks
			0 top soil, sandy brown silt	DRAFT
cement grout			5	HNU = 0.5 ppm strong petroleum odors
bentonite			10 greenish black sand, fine to medium	
gravel pack			15 20 25	
			30 brown very coarse sand and gravel	hydrocarbons present HNU = 1ppm - 10 ppm
			35	HNU = 5 ppm
			40 45 50	



LITHOLOGY

DRAFT

	Casing	Log	Description	Remarks
gravel pack			50 55 60 65 70 75 Limestone	