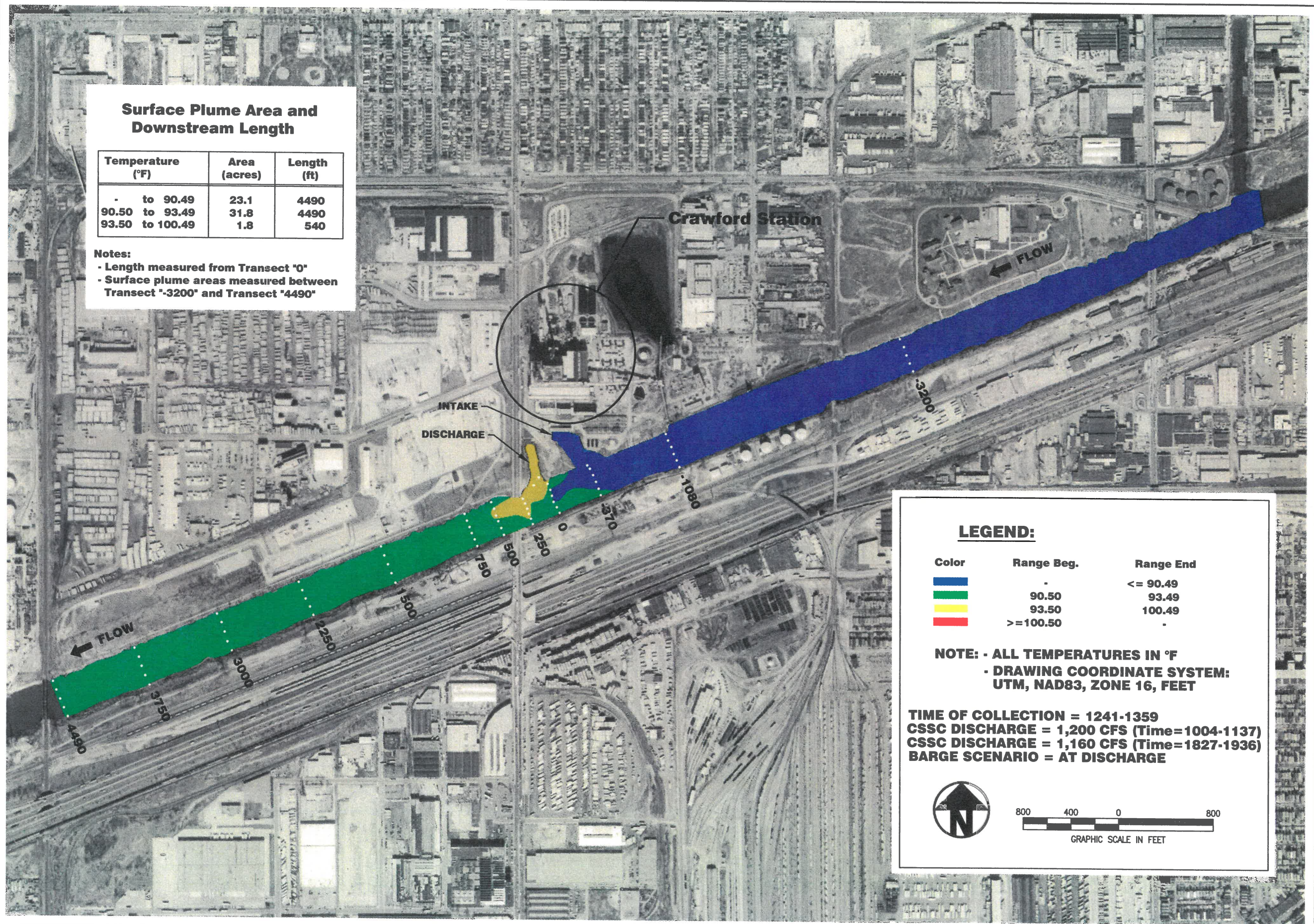


DRAWING NAME: F:\Utility\MidGen\6139312\Crawford.dwg\15Aug.dwg
 DATE: 1/18/2003 TIME: 10:15
 DRAWN BY: egacktc



Surface Plume Area and Downstream Length

Temperature (°F)	Area (acres)	Length (ft)
- to 90.49	23.1	4490
90.50 to 93.49	31.8	4490
93.50 to 100.49	1.8	540

Notes:
 - Length measured from Transect "0"
 - Surface plume areas measured between Transect "-3200" and Transect "4490"

LEGEND:

Color	Range Beg.	Range End
Blue	-	<= 90.49
Green	90.50	93.49
Yellow	93.50	100.49
Red	>= 100.50	-

NOTE: - ALL TEMPERATURES IN °F
 - DRAWING COORDINATE SYSTEM: UTM, NAD83, ZONE 16, FEET

TIME OF COLLECTION = 1241-1359
CSSC DISCHARGE = 1,200 CFS (Time=1004-1137)
CSSC DISCHARGE = 1,160 CFS (Time=1827-1936)
BARGE SCENARIO = AT DISCHARGE

800 400 0 800
 GRAPHIC SCALE IN FEET

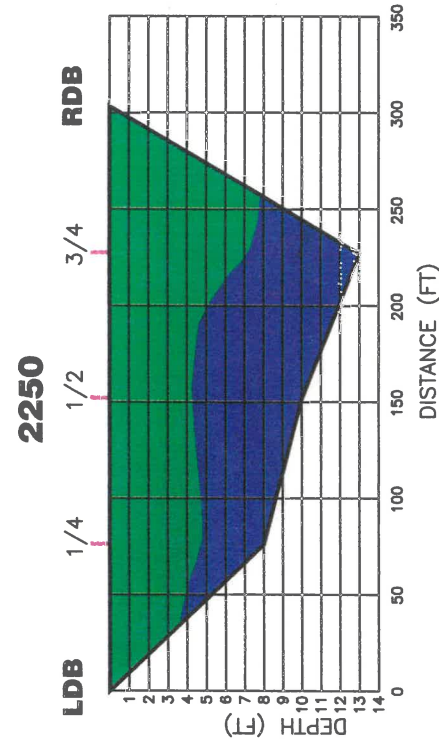
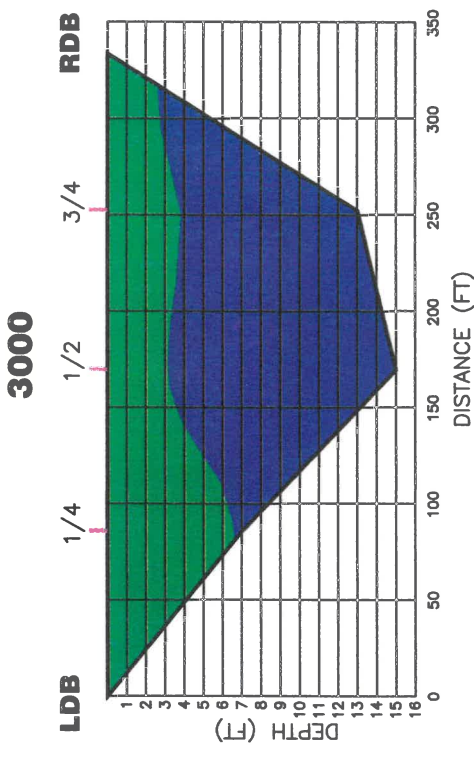
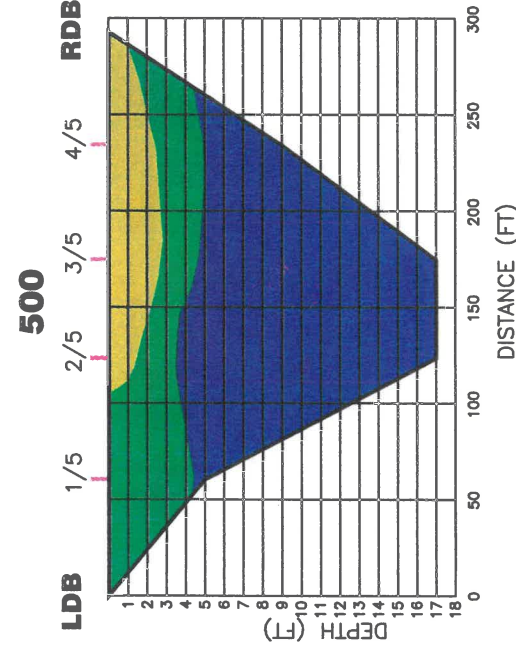
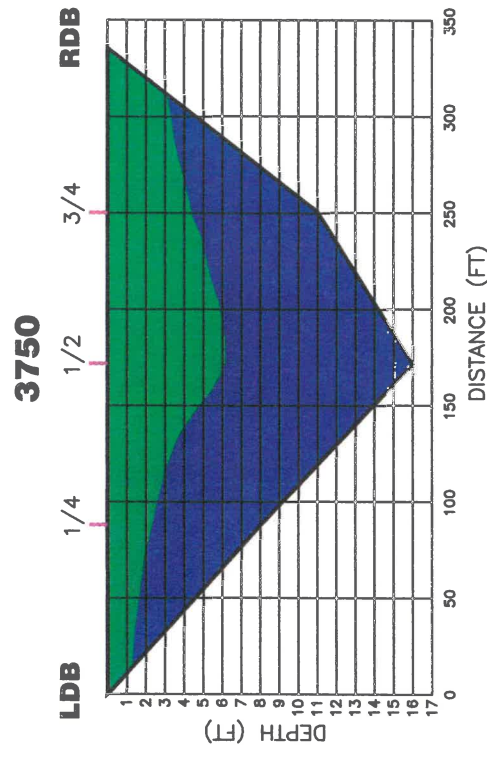
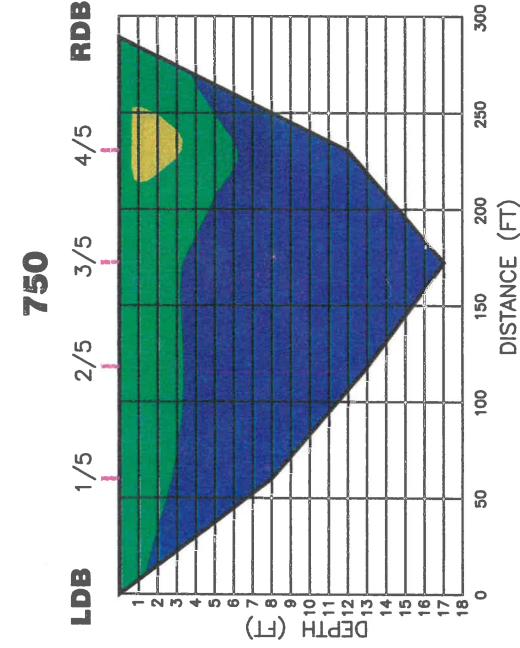
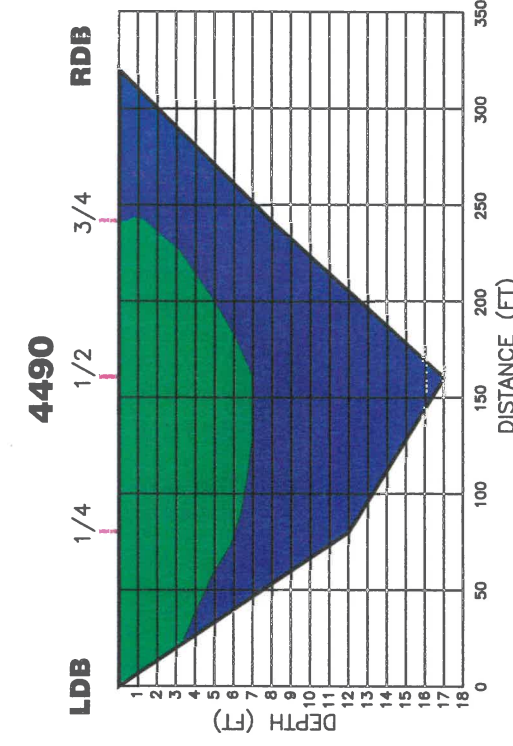
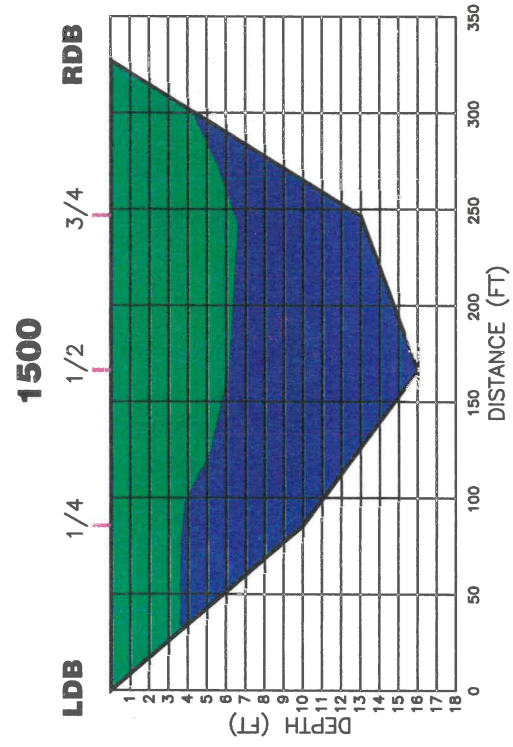
SURFACE TEMPERATURE MAPPING
 NEAR CRAWFORD STATION
 AUGUST 15, 2003

MIDWEST GENERATION
 TEMPERATURE MAPPING
 CHICAGO, ILLINOIS

EA ENGINEERING,
 SCIENCE, AND
 TECHNOLOGY



PROJECT MGR.	JV	DESIGNED BY	-	DRAWN BY	EG	CHECKED BY	ML	DATE	OCT 2003	SCALE	AS SHOWN	PROJECT NO.	61393.12	FILE NAME	-	DRAWING NO.	-	FIGURE	-
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LEGEND:

Color	Range Beg.	Range End
Blue	90.50	<= 90.49
Green	93.50	93.49
Yellow	93.50	100.49
Red	>= 100.50	.

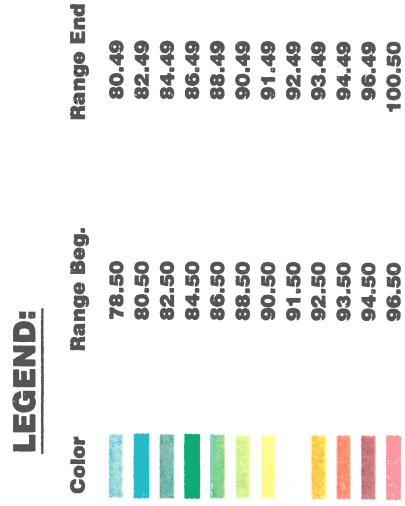
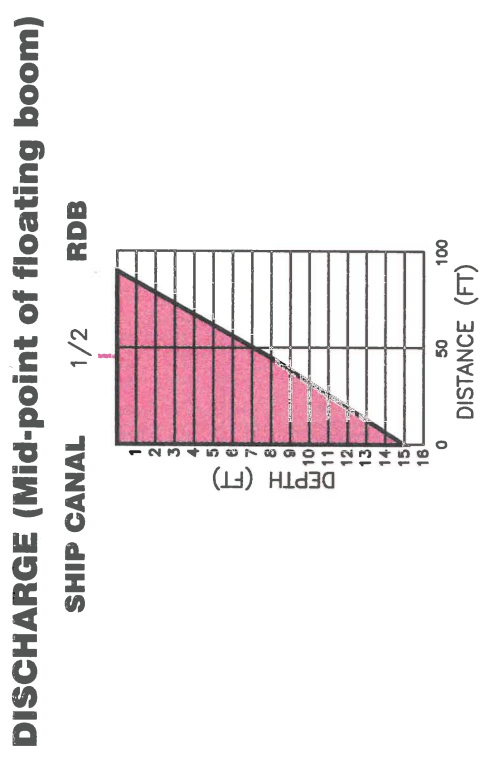
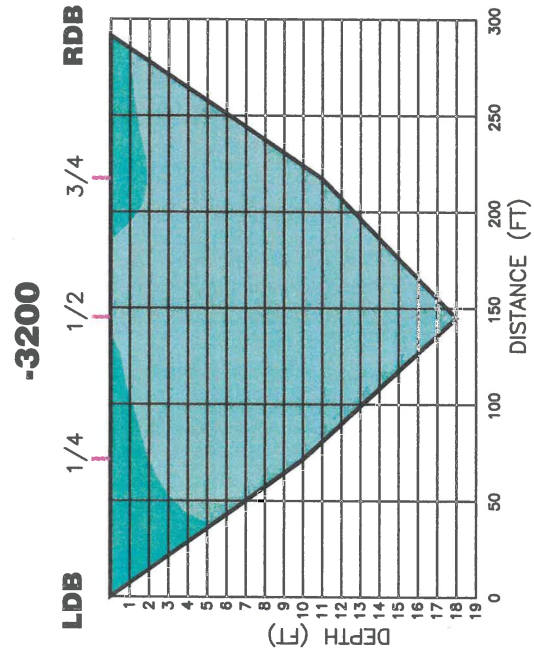
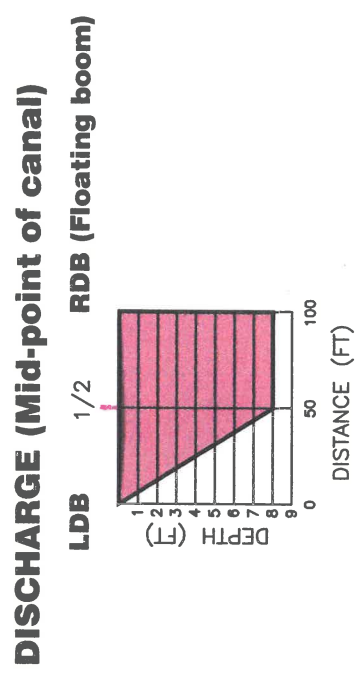
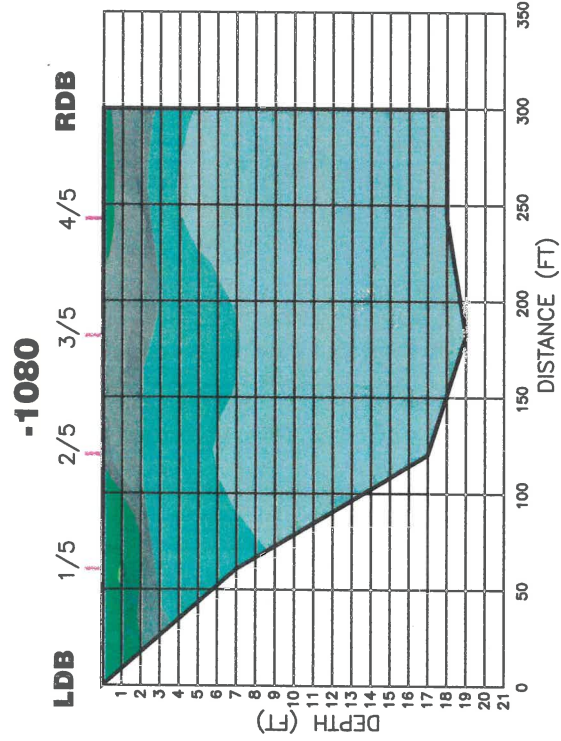
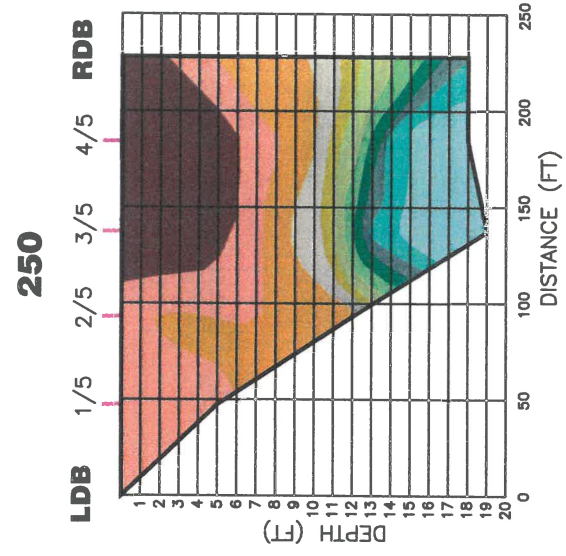
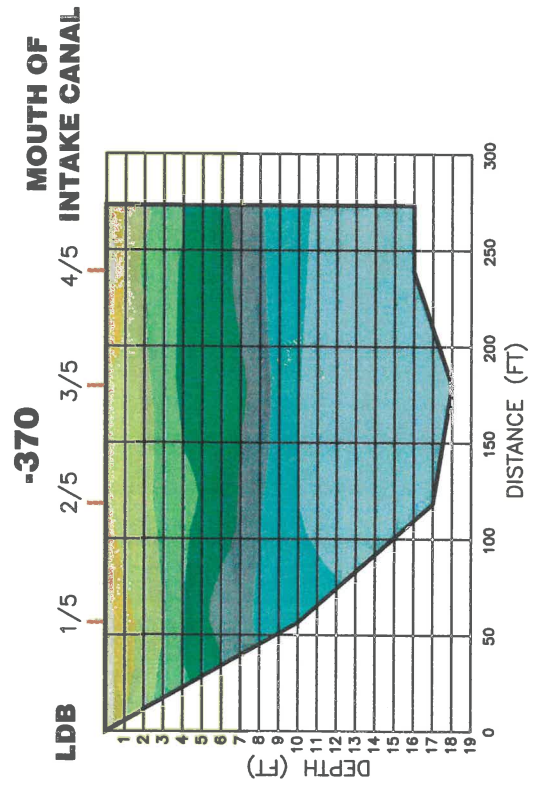
- SAMPLING POINTS

LDB - LEFT DESCENDING BANK
RDB - RIGHT DESCENDING BANK

TIME OF COLLECTION = 1554-1811
CSSC DISCHARGE = 1,200 CFS (Time = 1004-1137)
CSSC DISCHARGE = 1,160 CFS (Time = 1827-1936)
BARGE SCENARIO = AT DISCHARGE

NOTE: ALL TEMPERATURES IN °F
SCALE: HORIZONTAL 1"=100'
VERTICAL 1"=10'

FIGURE x - xx. Cross Section Temperatures at the 500, 750, 1500, 2250, 3000, 3750 and 4490 Transects, Near the Crawford Station, August 15, 2003.



— SAMPLING POINTS

LDB - LEFT DESCENDING BANK

RDB - RIGHT DESCENDING BANK

TIME OF COLLECTION = 1421-1551

CSSC DISCHARGE = 1,200 CFS (Time = 1004-1137)

CSSC DISCHARGE = 1,160 CFS (Time = 1827-1936)

BARGE SCENARIO = AT DISCHARGE

NOTE: ALL TEMPERATURES IN °F

SCALE: HORIZONTAL 1"=100'

VERTICAL 1"=10'

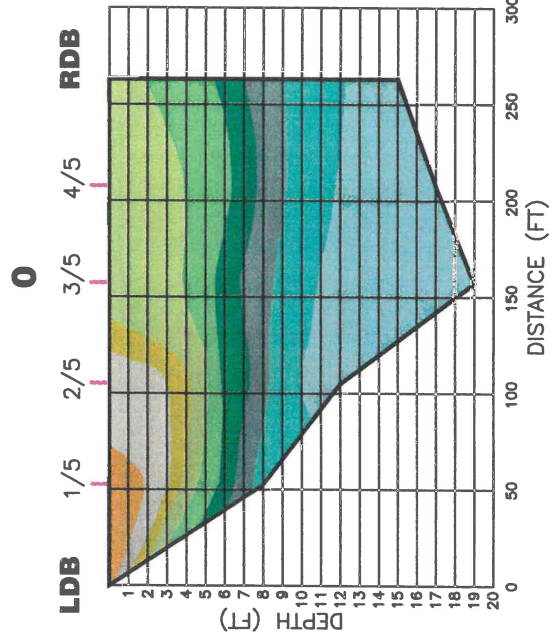


FIGURE x - xx. Cross Section Temperatures at the -3200, -1080, -370, 0, Discharge and 250 Transects, Near the Crawford Station, August 15, 2003.

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 DATE: 11/18/2003 TIME: 10:19
 DRAWN BY: egckic

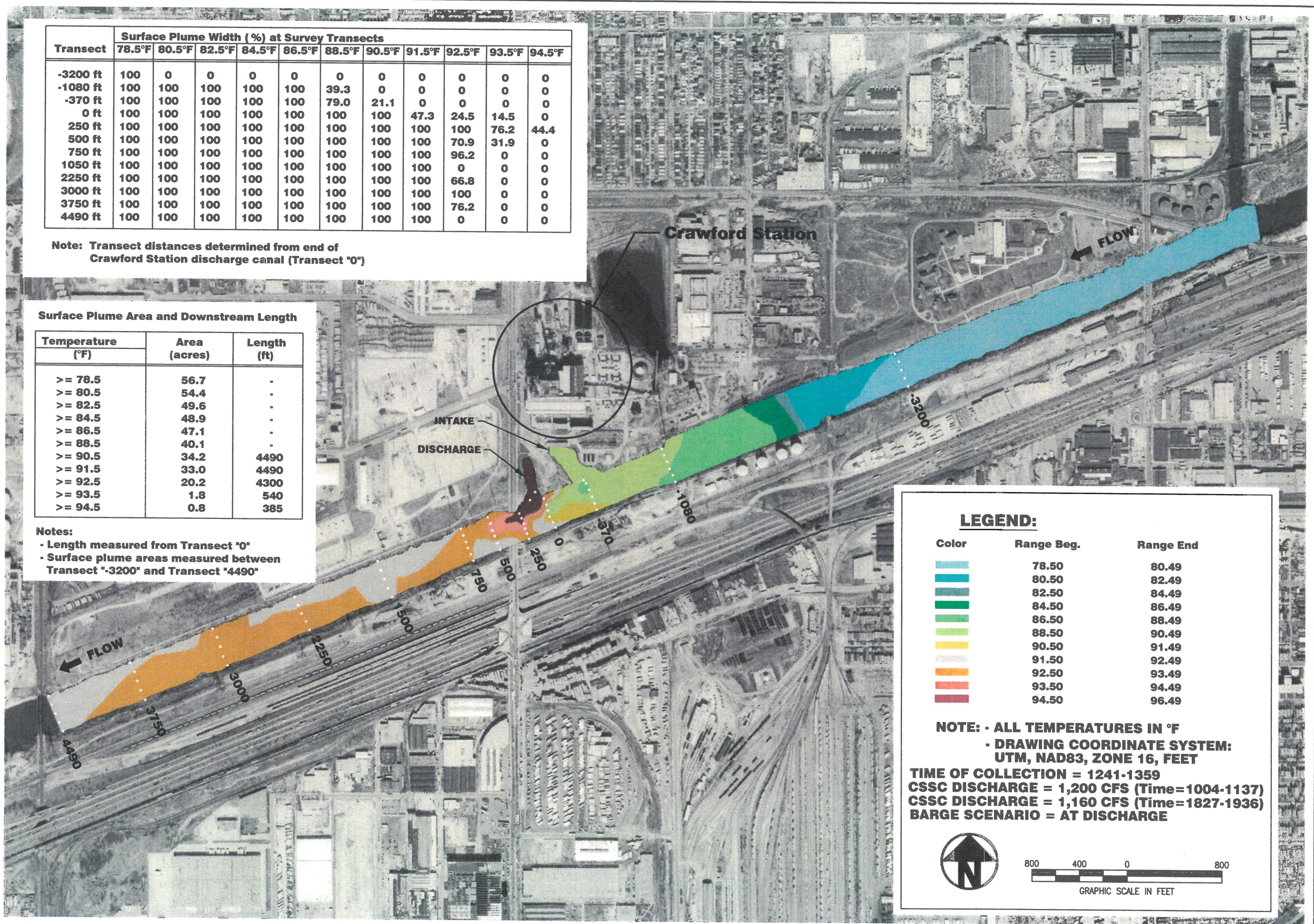
Transect	Surface Plume Width (%) at Survey Transects										
	78.5°F	80.5°F	82.5°F	84.5°F	86.5°F	88.5°F	90.5°F	91.5°F	92.5°F	93.5°F	94.5°F
-3200 ft	100	0	0	0	0	0	0	0	0	0	0
-1080 ft	100	100	100	100	100	39.3	0	0	0	0	0
-370 ft	100	100	100	100	100	79.0	21.1	0	0	0	0
0 ft	100	100	100	100	100	100	100	47.3	24.5	14.5	0
250 ft	100	100	100	100	100	100	100	100	100	76.2	44.4
500 ft	100	100	100	100	100	100	100	100	70.9	31.9	0
750 ft	100	100	100	100	100	100	100	100	96.2	0	0
1050 ft	100	100	100	100	100	100	100	100	0	0	0
2250 ft	100	100	100	100	100	100	100	100	66.8	0	0
3000 ft	100	100	100	100	100	100	100	100	100	0	0
3750 ft	100	100	100	100	100	100	100	100	76.2	0	0
4490 ft	100	100	100	100	100	100	100	100	0	0	0

Note: Transect distances determined from end of Crawford Station discharge canal (Transect "0")

Surface Plume Area and Downstream Length

Temperature (°F)	Area (acres)	Length (ft)
>= 78.5	56.7	-
>= 80.5	54.4	-
>= 82.5	49.6	-
>= 84.5	48.9	-
>= 86.5	47.1	-
>= 88.5	40.1	-
>= 90.5	34.2	4490
>= 91.5	33.0	4490
>= 92.5	20.2	4300
>= 93.5	1.8	540
>= 94.5	0.8	385

Notes:
 - Length measured from Transect "0"
 - Surface plume areas measured between Transect "-3200" and Transect "4490"



LEGEND:

Color	Range Beg.	Range End
	78.50	80.49
	80.50	82.49
	82.50	84.49
	84.50	86.49
	86.50	88.49
	88.50	90.49
	90.50	91.49
	91.50	92.49
	92.50	93.49
	93.50	94.49
	94.50	96.49

NOTE: - ALL TEMPERATURES IN °F
 - DRAWING COORDINATE SYSTEM: UTM, NAD83, ZONE 16, FEET

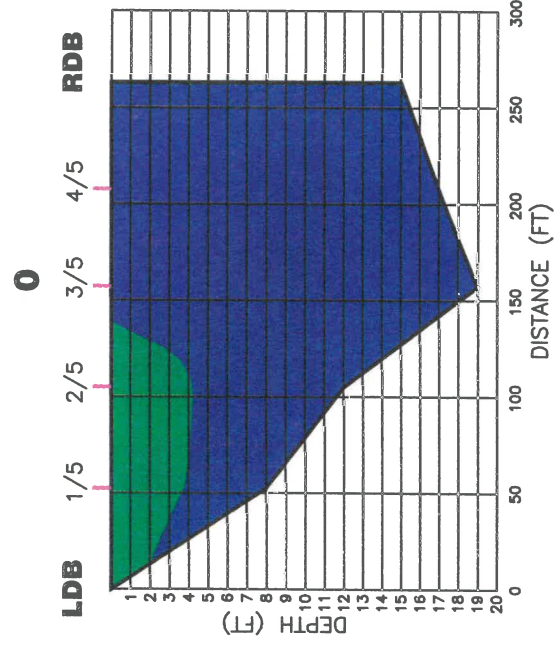
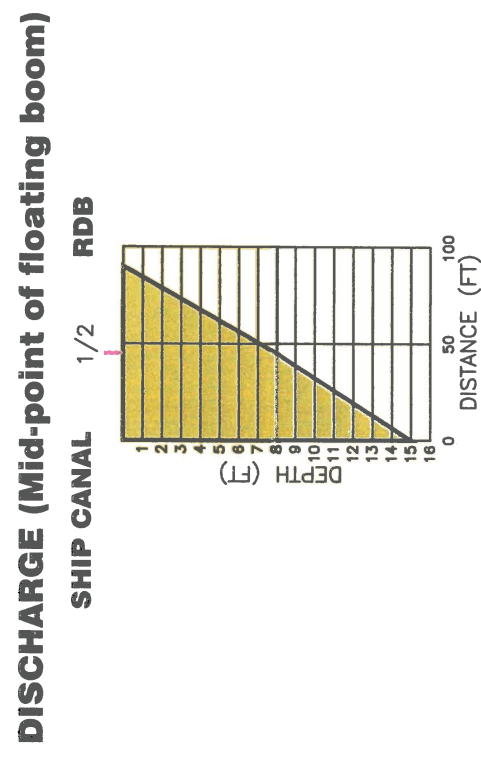
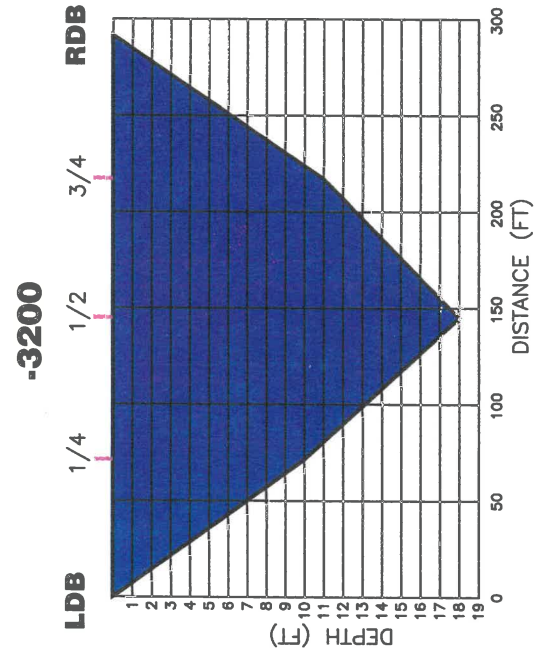
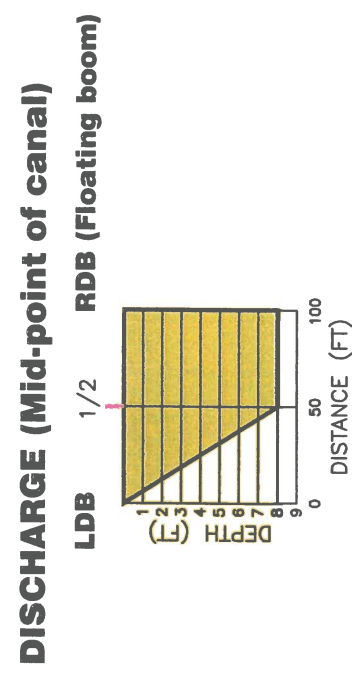
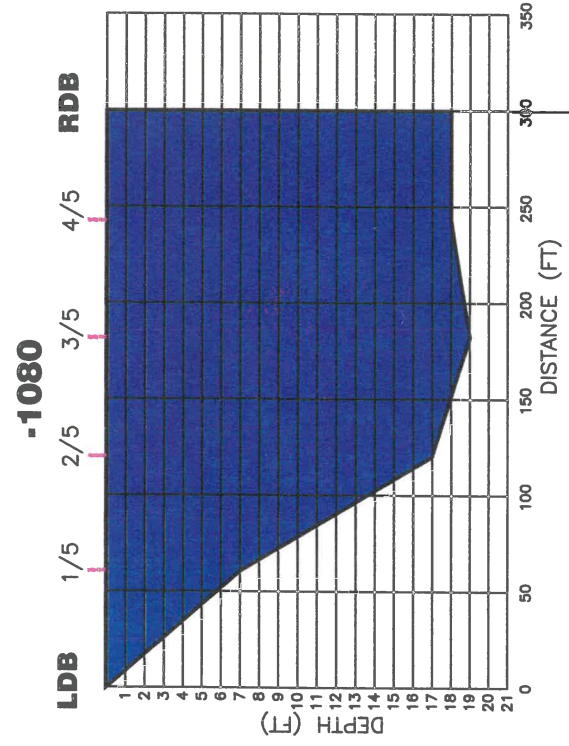
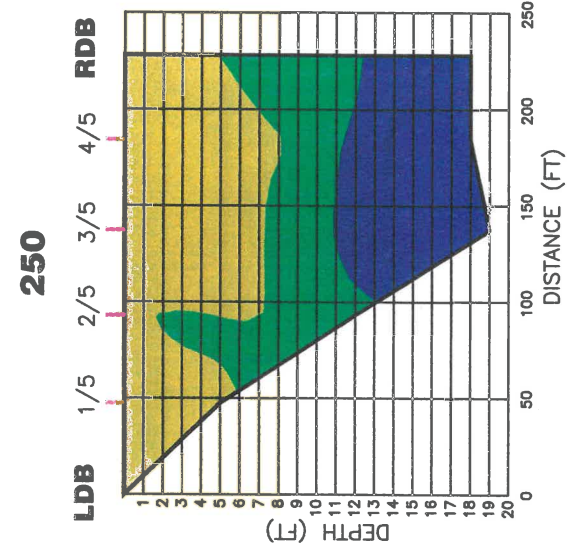
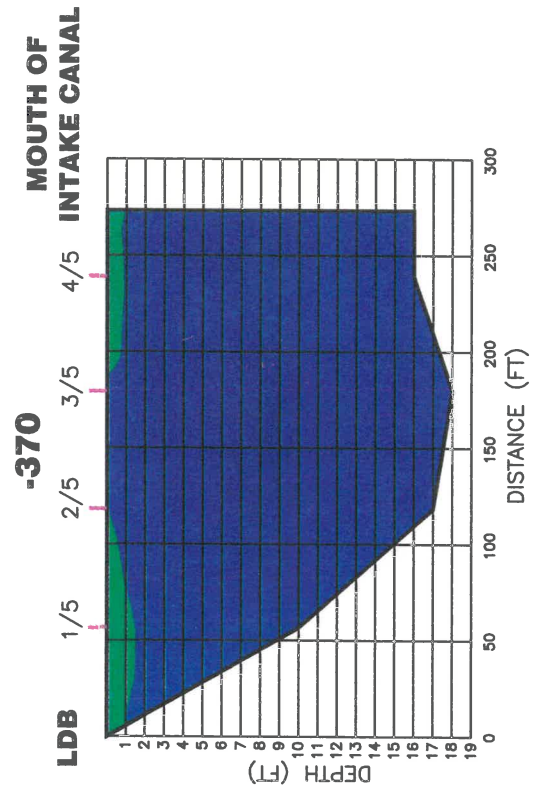
TIME OF COLLECTION = 1241-1359
 CSSC DISCHARGE = 1,200 CFS (Time=1004-1137)
 CSSC DISCHARGE = 1,160 CFS (Time=1827-1936)
 BARGE SCENARIO = AT DISCHARGE



SURFACE TEMPERATURE MAPPING
 NEAR CRAWFORD STATION
 AUGUST 15, 2003

MIDWEST GENERATION
 TEMPERATURE MAPPING
 CHICAGO, ILLINOIS

PROJECT MGR.	JV	DESIGNED BY	-	DRAWN BY	EG	CHECKED BY	ML	DATE	OCT 2003	SCALE	AS SHOWN	PROJECT NO.	61393.12	FILE NAME	-	DRAWING NO.	-	FIGURE	-
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LEGEND:

Color	Range Beg.	Range End
Blue	90.50	<= 90.49
Green	93.50	93.49
Yellow	93.50	100.49
Red	>= 100.50	.

- SAMPLING POINTS

LDB - LEFT DESCENDING BANK

RDB - RIGHT DESCENDING BANK

TIME OF COLLECTION = 1421-1551

CSSC DISCHARGE = 1,200 CFS (Time = 1004-1137)

CSSC DISCHARGE = 1,160 CFS (Time = 1827-1936)

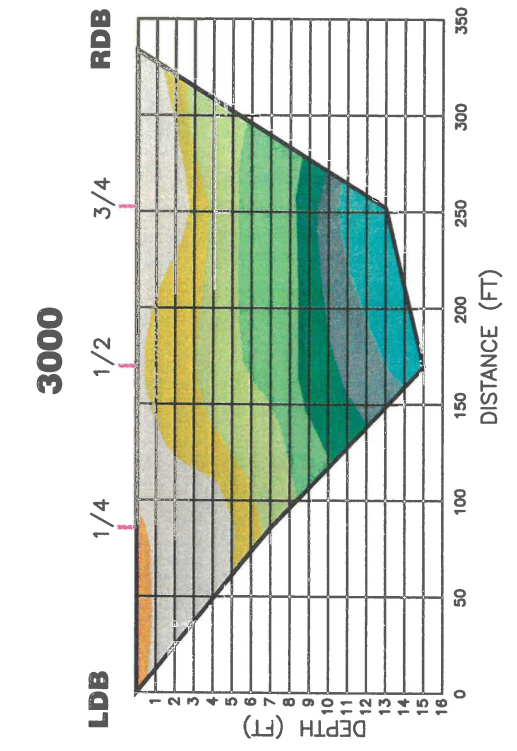
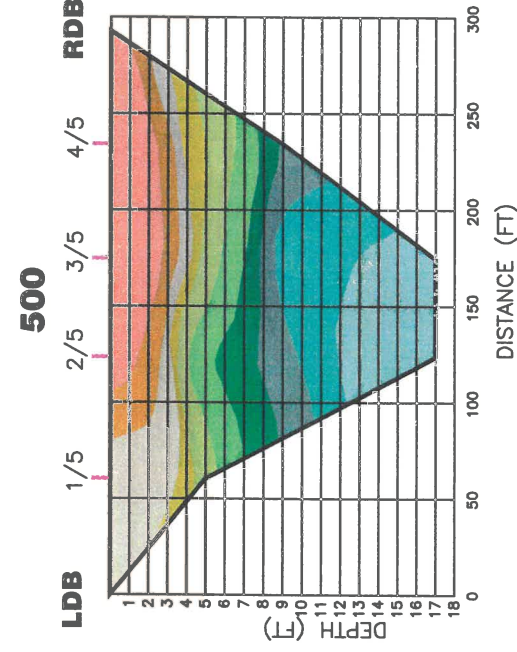
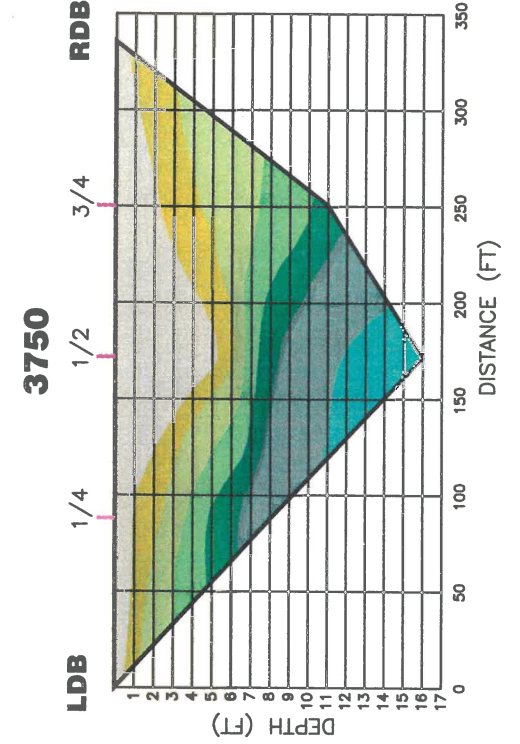
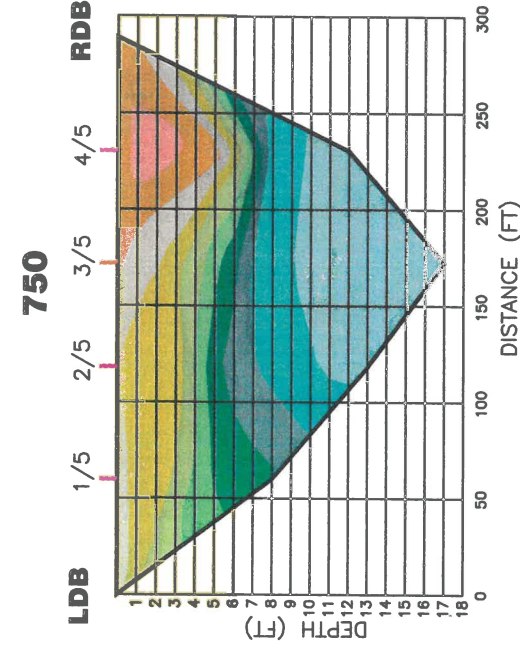
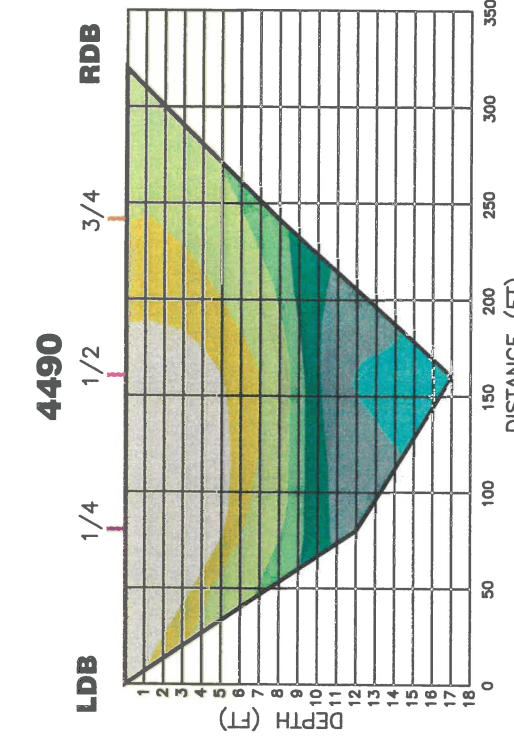
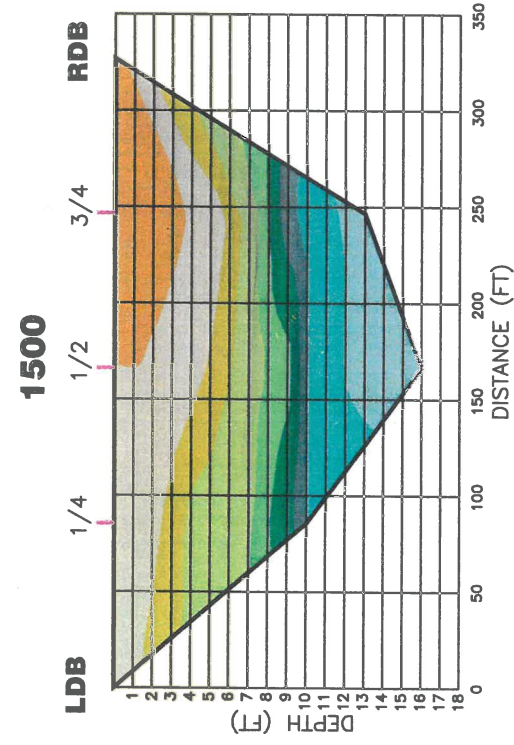
BARGE SCENARIO = AT DISCHARGE

NOTE: ALL TEMPERATURES IN °F

SCALE: HORIZONTAL 1"=100'

VERTICAL 1"=10'

FIGURE x - xx. Cross Section Temperatures at the -3200, -1080, -370, 0, Discharge and 250 Transects, Near the Crawford Station, August 15, 2003.



LEGEND:

Color	Range Beg.	Range End
Light Blue	78.50	80.49
Blue	80.50	82.49
Light Green	82.50	84.49
Green	84.50	86.49
Yellow-Green	86.50	88.49
Yellow	88.50	90.49
Light Orange	90.50	91.49
Orange	91.50	92.49
Red-Orange	92.50	93.49
Red	93.50	94.49

- SAMPLING POINTS
 LDB - LEFT DESCENDING BANK
 RDB - RIGHT DESCENDING BANK
 TIME OF COLLECTION = 1554-1811
 CSSC DISCHARGE = 1,200 CFS (Time=1004-1137)
 CSSC DISCHARGE = 1,160 CFS (Time=1827-1936)
 BARGE SCENARIO = AT DISCHARGE
 NOTE: ALL TEMPERATURES IN °F
 SCALE: HORIZONTAL 1"=100'
 VERTICAL 1"=10'

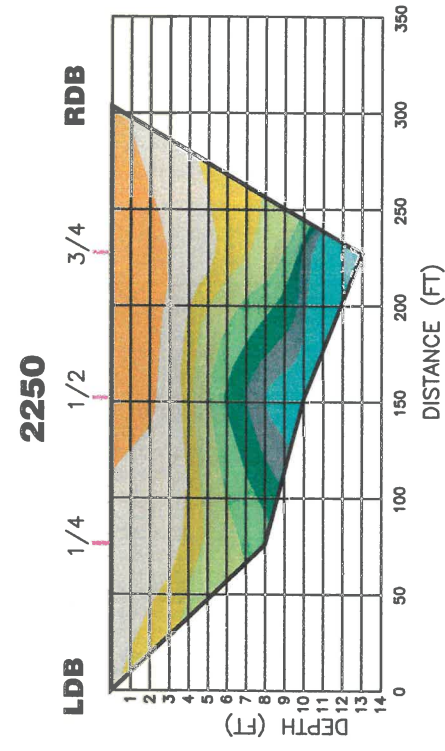


FIGURE x - xx. Cross Section Temperatures at the 500, 750, 1500, 2250, 3000, 3750 and 4490 Transects, Near the Crawford Station, August 15, 2003.