TABLE NO. II - RESULTS

A. AMBIENT TEMPERATURE:

	Corrosion Rate	Remarks
1018 Mild Steel	0.18 mpy	Samples tarnished in both the liqu and vapor phases.
Heresite P700/L66	—	Sample appears uneffected except fo a color change to darker.

B. 120° F:

	Corrosion Rate	Remarks
1018 Mild Steel	0.62 mpy	Heavy general corrosion just above the liquid/vapor interface where th metal temperature is below the dew point of the acid.
Heresite L66-X1	—	Sample appears uneffected except for a color change to darker.

APPENDIX E-III

TANK T-8
MCT, DCT, OCT

LIST OF DRAWINGS

D-60346 TANK T-8 SECONDARY CONTAINMENT
D-60349 TANK T-8 CONTAINMENT (TSC-8)
D-60308 TANK T-8 FLOWSHEET (TF-8)

MAP IN - T-8 CONTOURS MAP

Tank Data Sheet (TD-8)

TYPICAL CONTENTS:	MCT, OCT, DCT 4,450 gal.
LOCATION:	Tank Farm SE of Bldg. N-6
EQUIPMENT NUMBER/ DRAWING NUMBER:	6285011/B-11-6577
CONSTRUCTION:	SA285 Gr C Steel
CONFIGURATION:	Vertical, dished heads, four supports
DIMENSIONS:	
Height/Length	18' 2" OA 15' tank length
Diameter	7' 6" OD
Shell Thickness	5/8"
Lead Thickness	5/8"
DESIGN PRESSURE:	35 psig
LINED:	No
CODE/STAMP:	ASME/YES
OPERATING TEMP/PRESS:	Ambient/Atmospheric
INSTRUMENTATION/CONTROL:	Rupture Disc/Weigh Cell
FOUNDATION/STRUCTURAL:	Steel frame on reinforced concrete. See Dwg B-11-6577, A-11-6199 and description.
SECONDARY CONTAINMENT:	Concrete dike coated with urethane and plasite See Dwg. A-11-6199, TSC 8 and Calculations.
FLOW SHEET:	TF-8

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TANK #8 - DIKE CONTAINMENT CALCULATIONS

1) Gross Area of Dike: $A_G = (47.0ft)(17.62ft)+(30.00ft)(15.43ft) = 1,291\ ft^2$

2) Precipitation Volume: $V_P = (1,291\ ft^2)(4/12\ ft) = 430\ ft^3$

3) Gross Storage Volume at Dike: $V_G = (28.0\ ft)(14.10\ ft)(1\ ft)+(16.96\ ft)(14.10\ ft)(1.33\ ft)+(16.96\ ft)(47.0\ ft)(3\ ft) = 3,104\ ft^3$

4) (Subtract) Volume of Tank Pads: (Assume all pads are square) $V_{TP} = (9.33\ ft)(9.33\ ft)(0.33\ ft)+2(10.5\ ft)(10.5\ ft)(0.33\ ft)+3(12.0\ ft)(12.0\ ft)(0.5\ ft) = 317\ ft^3$

5) Net Volume Containment Dike: $V_N = V_G - V_{TP} = (3,104 - 317)\ ft^3 = 2,787\ ft^3$

6) Containment Volume Available for Spill: $V_C = V_N - V_P = (2,787 - 430)ft^3 = 2,357\ ft^3$

7) Tank Volume: $V_T = 4,450\ gal \Rightarrow 595\ ft^3$

8) Excess Volume of Containment Dike: $V_G = V_C - V_T = (2,357 - 595)ft^3 = 1,762\ ft^3$

Therefore, total spill plus 25 year precipitation event is contained.

NO	REVISIONS	Drwn	App	Date

Drawn By JLR Date 6·92
Dsgn By ____ Date ____
Chkd By ____ Date ____
App ____ Date ____
SCALE ____
BLDG. NO.

OXY.

JUN 11 1992

Occidental Chemical Corporation

E 045

TANK T-8 SECONDARY CONTAINMENT CALCULATIONS

D-60346

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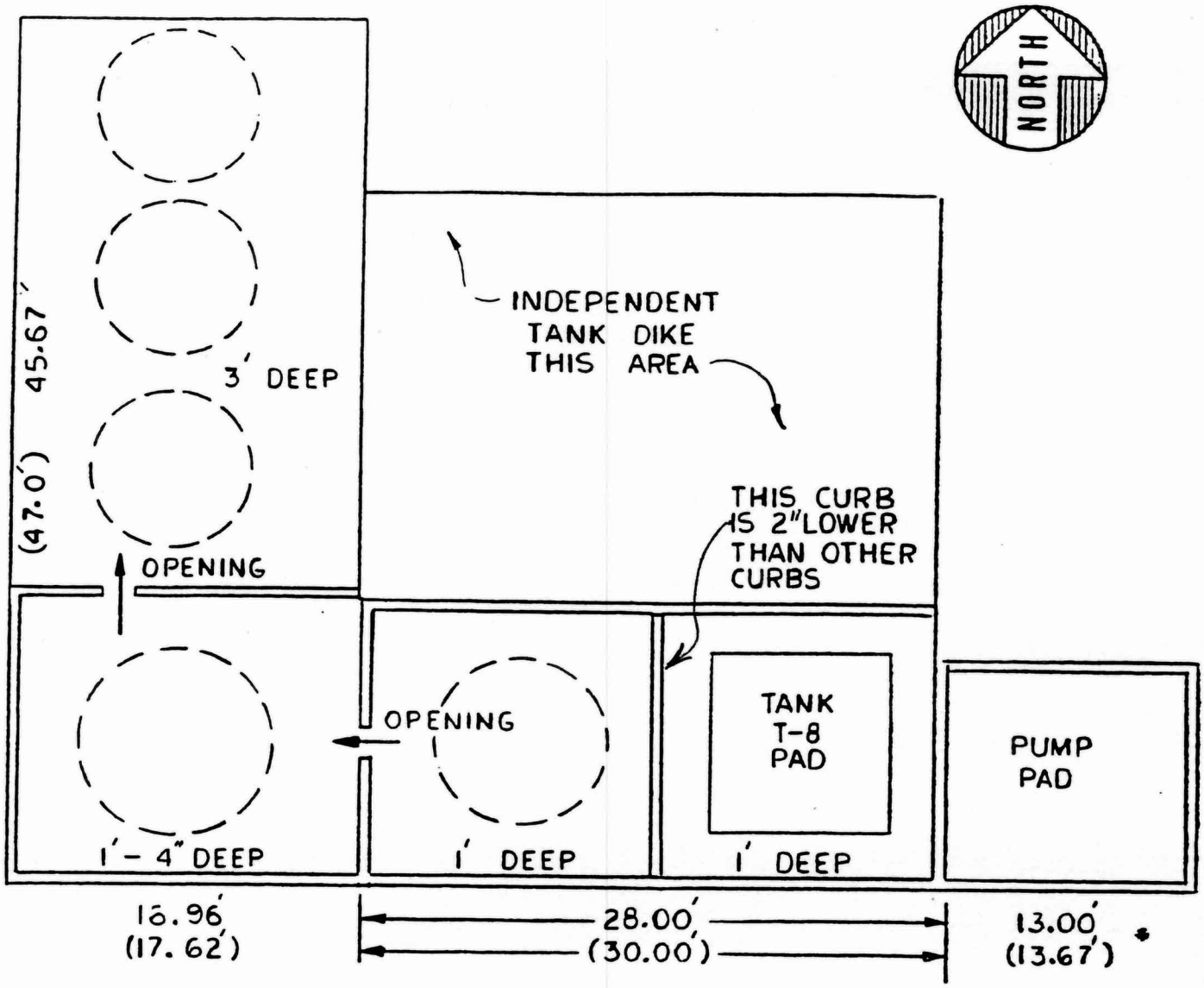

*Field Measured (Dimension on Drawing A-11-6199 is void)

NOTE: 1) Lengths shown as (30.00 ft) include Dike curbing for precipitation volume calculation. Lengths shown as 28.00 ft are lengths used for containment volume calculation

2) Tank skirts have openings which allow accumulation of liquid between the tank and pad. Therefore, no reduction in volume occurs from tank skirts.

3) Not to scale.

NO	REVISIONS	Drwn.	App.	Date

Drawn By RGK Date 6/92
Dsgn By _____ Date _____
Chkd By _____ Date _____
App. _____ Date _____
SCALE ~

BLDG. NO. N AREA

OXY.

JUN 11 1992

Occidental Chemical Corporation

E 046

TANK T-8 CONTAINMENT
(DWG. TSC-8)

DWG. D-60349

545945

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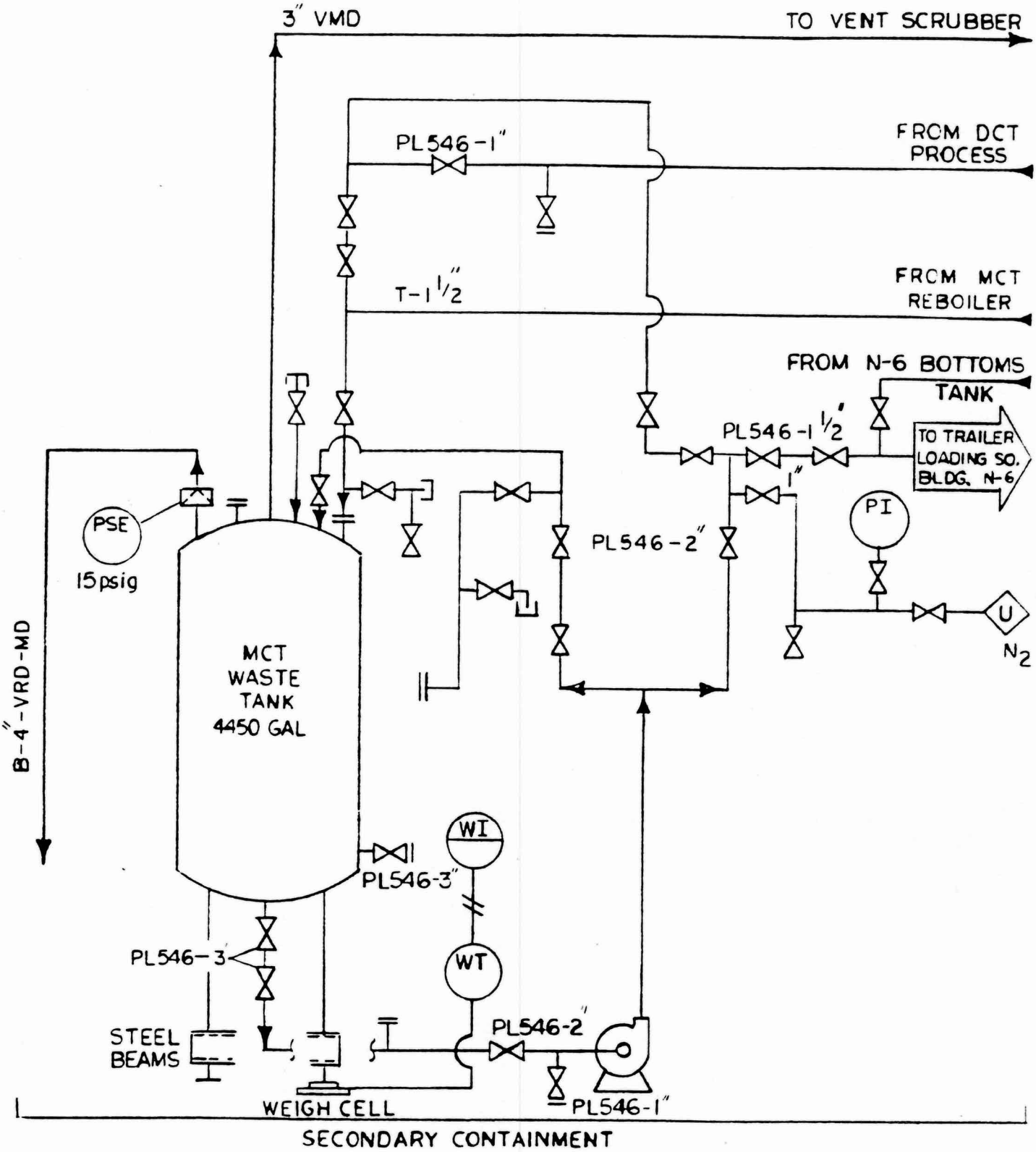


FIGURE TF8

NO.	REVISIONS	Drwn.	App.	Date

Drawn By RGK Date 5/92
Dsgn. By ____ Date ____
Chkd By ____ Date ____
App. ____ Date ____
SCALE ~
BLDG. NO. N-AREA

OXY.

JUN 11 1992

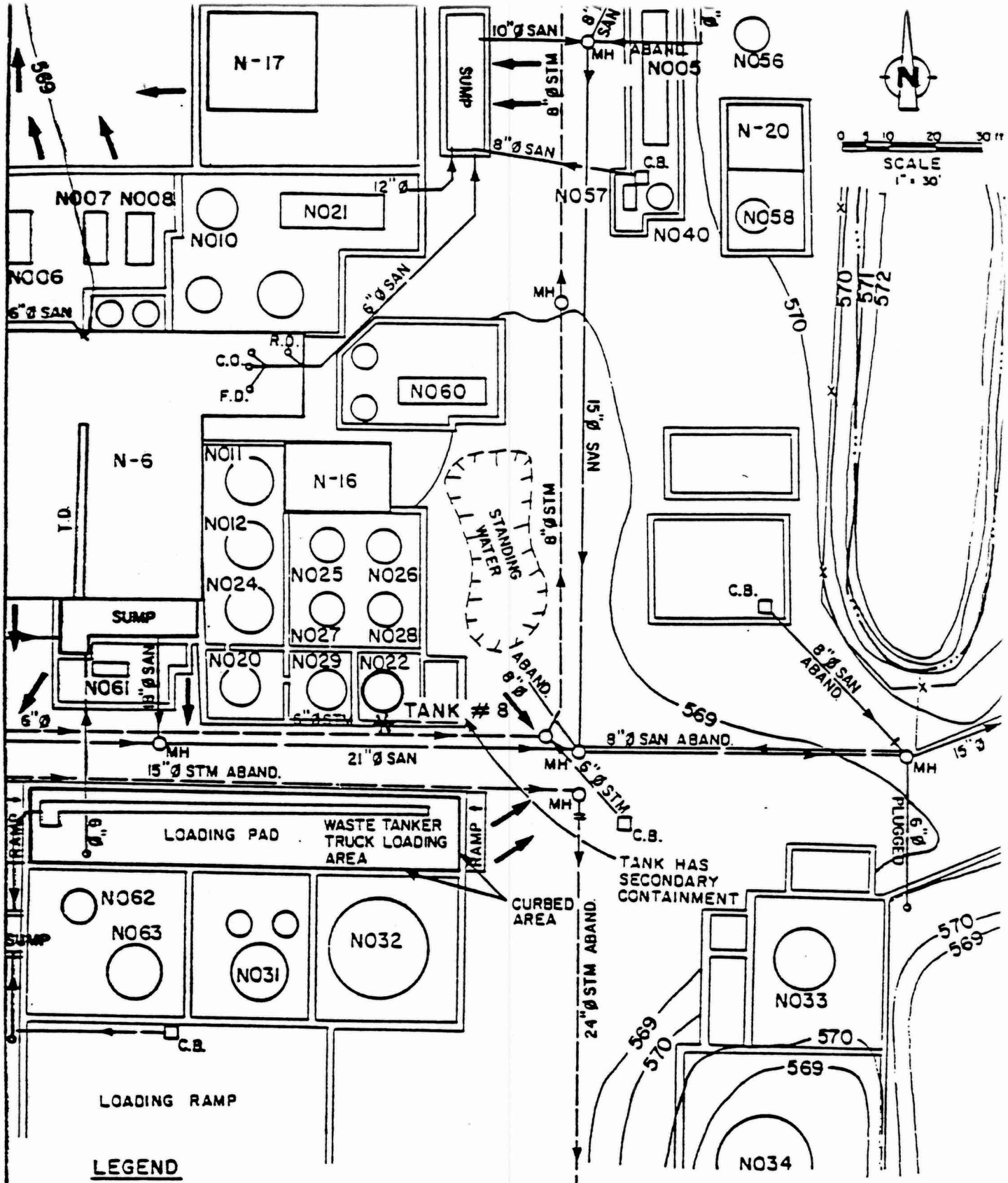
Occidental Chemical Corporation

E 047

TF8 WASTE TANK FLOWSHEET

BWG. D-60308

ENGINEERING SUPPLY COMPANY 81071



MAP IN

TANK 8 CONTOURS
(REFER TO MAP - 1)

OCCIDENTAL CHEMICAL CORPORATION
Niagara Plant

CRA

1177-8/05/87-L-1

K-9

October 26,1995

J. Czapla

Fm: W. Tubbs

RE: **External Inspection of the MCT Residue Tank**
CC: 443, EQ #6285011, South of N-6

An external inspection including an ultrasonic inspection with the DME meter was performed at the request of J. Czapla on 10/26/95 to determine the condition of the vessel. A thickness profile is shown on the attached drawing.

Discussion of Findings:

The O.D. is painted and is in good condition. A summary of the thickness readings is shown below:

	Orig. Nominal Thickness	Current Thickness	Minimum Thickness
Top Head	.750"	.700"	.18"
Shell	.625"	.560"	.12"
Bottom Head	.750"	.700"	.18"

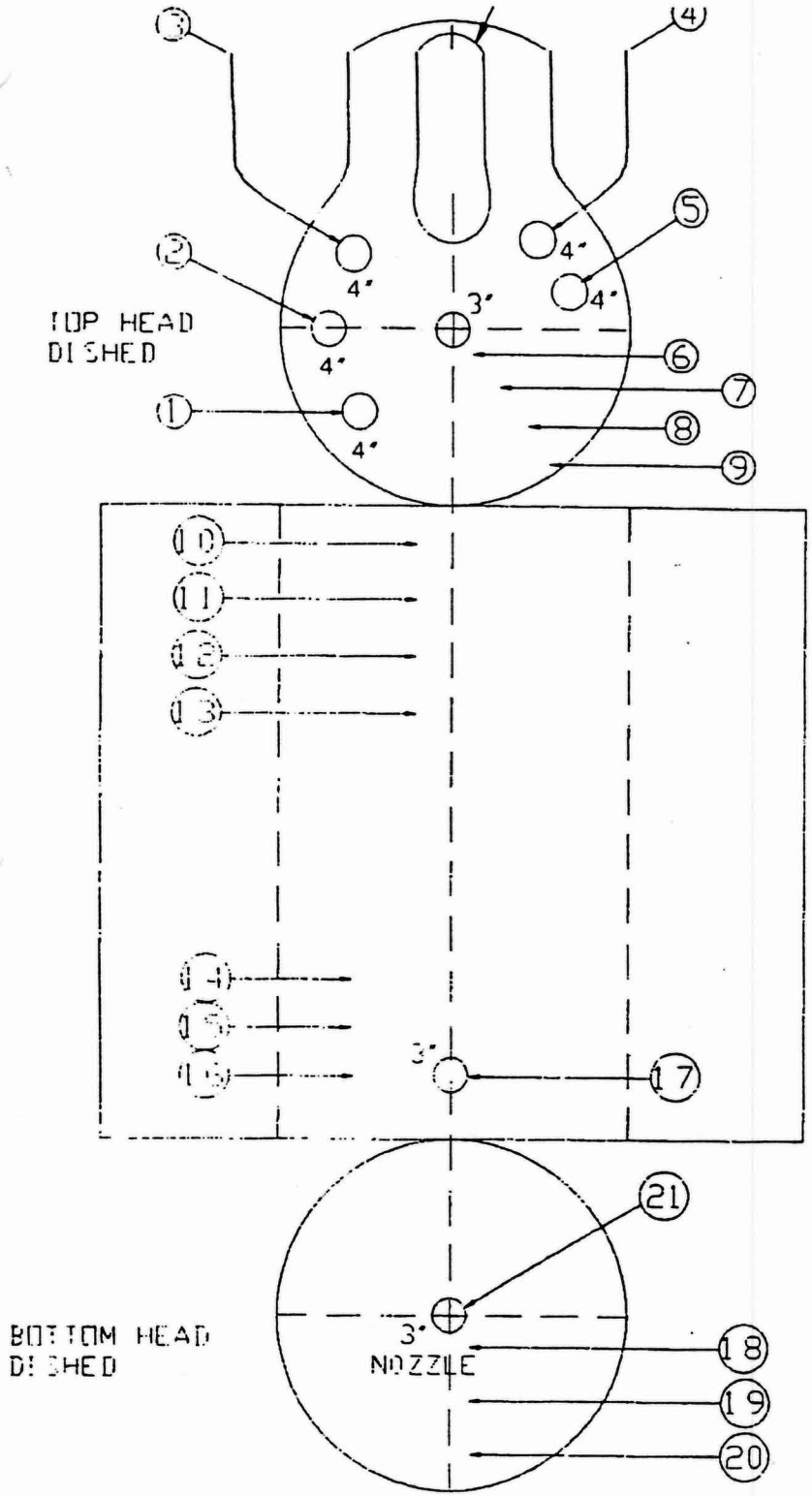
Recommendations:

Continue the tank in service. The next internal visual inspection is due 10/98. The next external visual inspection is due 10/26/96.

c:\6285011.084

EQ 6-285-011

BLDG S. OF N-6



#1-.63
#2-.62
#3-.61
#4-.58
#5-.64
#6-.7
#7-.71
#8-.73
#9-.74
#10-.56
#11-.62
#12-.62
#13-.63
#14-.65
#15-.65
#16-.65
#17-.65
#18-.7
#19-.7
#20-.72
#21-.58

7'-6 DIA X 12'-0 H (NOMINAL) DWG00003-R

Desc: MCT RESIDUE STORAGE (5M)
DWG#: 6285011-100-3000

August 3,1994

J. Czapla

Fm: W. Tubbs

RE: **Internal Inspection of the MCT Residue Tank**
CC: 443, EQ #6285011, South of N-6

An internal inspection was performed at the request of J. Czapla on 10/7/93 to determine the condition of the vessel. Findings are shown shown on the attached drawing.

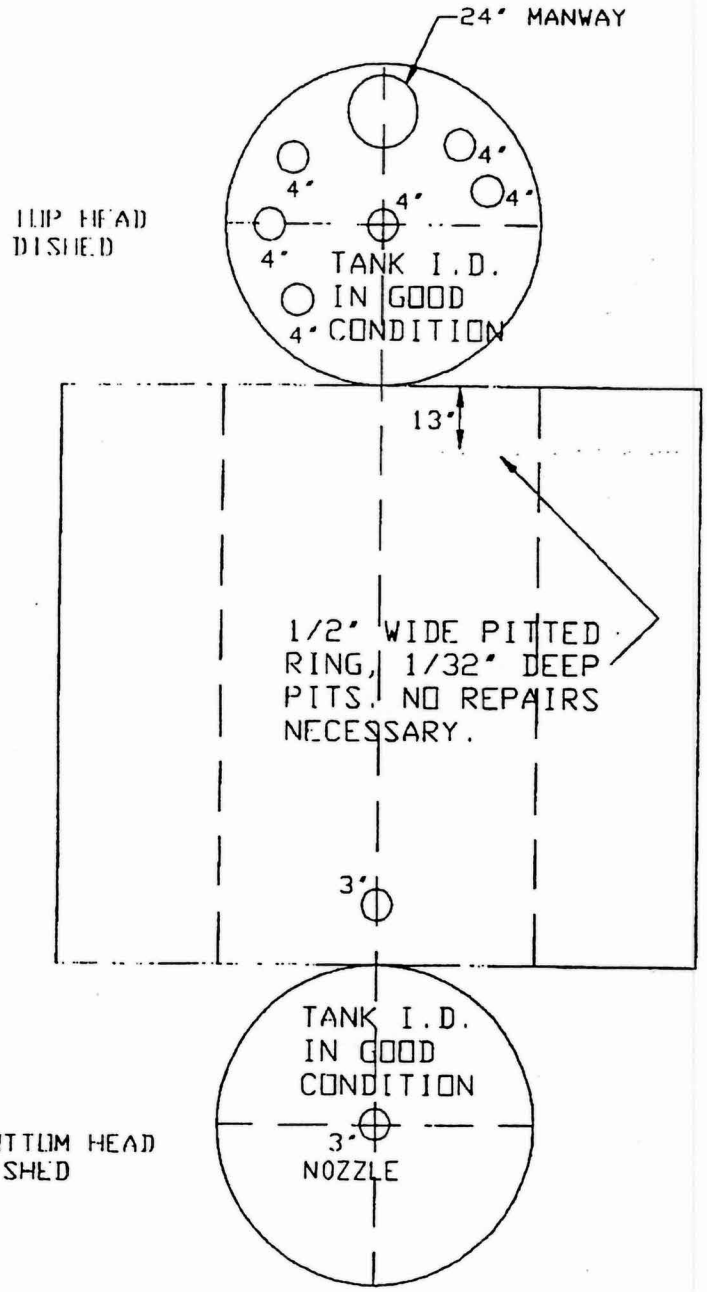
Discussion of Findings:

The I.D. has a 1/2" wide corrosion ring with pitting to 1/32" deep the circumference of the vessel, shown on the attached drawing. No repairs are necessary. The remainder of the tank is in good condition.

Recommendations:

Continue the tank in service. The next internal visual inspection is due 10/98 the next external visual inspection is due 8/3/95.

DATE 10/07/93
CC 443
LOC 10099
EQ 6-285-011
BLDG S. OF N-6



7'-6 DIA X 12'-0 H (NOMINAL) DWG00003-R

Desc: MCT RESIDUE STORAGE
DWG#: 6285011-1.00-30.00

E 052

APPENDIX E-IV

TANK T-9
3,5-DCBOC, BOC, BTC, PCBTC, OCBTC,
M-22 MIXED RESIDUE STORAGE

LIST OF DRAWINGS

D-60347 TANK T-9 SECONDARY CONTAINMENT CALCULATIONS
D-60343 TANK T-9 CONTAINMENT (DWG. TSC-9)

FIGURE TF-9 TANK T-9 FLOWSHEET
MAP 10 TANK T-9 AND T-19 CONTOURS MAP

Tank Data Sheet (TD9)

TYPICAL CONTENTS:	Benzoyl chloride, 3,5 Dichlorobenzoyl Chloride, Benzotrichloride, PCBTC/OCBTC Residue mixture
LOCATION:	M-22 Tank Farm
EQUIPMENT NUMBER/ DRAWING NUMBER:	6164327
CONSTRUCTION:	A285 Gr F.Q. Steel
CONFIGURATION:	Vertical, dished heads, four support legs
DIMENSIONS:	
Height/Length	11'
Diameter	8' 6"
Shell Thickness	7/16"
Lead Thickness	1/2"
DESIGN PRESSURE:	25 psig
LINED:	No
CODE/STAMP:	
OPERATING TEMP/PRESS:	Ambient/Atmospheric
INSTRUMENTATION/CONTROL:	Level transmitter, rupture disc., N_2 Pad, seal pots, Pressure transmitter, Temperature probe
FOUNDATION/STRUCTURAL:	See Dwg A-11-4711-4716, R264-1283 and description
SECONDARY CONTAINMENT	Diked concrete with urethane and plasite coating See Dwg 411-4711-4716, TSC9 and Calculations
FLOW SHEET:	TF-9

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TANK #9 - DIKE CONTAINMENT CALCULATIONS

1) Gross Area of Dike and other Areas Drained by Sump: $A_G = (100\ ft)(10\ ft)+(19.92\ ft)(3.75\ ft)+(14.67\ ft)(66.58\ ft)+(2.0\ ft)(81.58\ ft)+(14.00\ ft)(77.83\ ft)+(9.33\ ft)(77.83\ ft)= 4{,}030\ ft^2$

2) Precipitation Volume: $V_P = (4{,}030\ ft^2)(4/12\ ft) = 1{,}343\ ft^3$

3) Gross Storage Volume at Dike (Including Sump): $V_G = (18.58\ ft)(3.08\ ft)(1\ ft)+(14.00\ ft)(65.24\ ft)(1\ ft)+(2.00\ ft)(80.24\ ft)(1\ ft)+(14.00\ ft)(76.50)(1\ ft)+(8.00\ ft)(22.00\ ft)(6\ ft) = 3{,}258\ ft^3$

4) (Subtract) Volume of Tank Pads: (Assume all pads are square) $V_{TP} = (9\ ft)(9\ ft)(10)(1\ ft)+(11.5\ ft)(11.5\ ft)(1)(1\ ft) = 942\ ft^3$

5) Net Volume Containment Dike: $V_N = V_G - V_{TP} = (3{,}258 - 942)ft^3 = 2{,}316\ ft^3$

6) Containment Volume Available for Spill: $V_C = V_N - V_P = (2{,}316 - 1{,}343)ft^3 = 973\ ft^3$

7) Tank Volume: $V_T = 5{,}000\ gal \Rightarrow 663\ ft^3$

8) Excess Volume of Containment Dike: $V_E = V_C - V_T = (973 - 663)ft^3 = 310\ ft^3$

Therefore, total spill plus 25 year precipitation event is contained.

NO	REVISIONS	Drwn.	App	Date

Drawn By JLR Date 6·92
Dsgn By ____ Date ____
Chkd By ____ Date ____
App ____ Date ____
SCALE ____
BLDG. NO.

OXY.

Occidental Chemical Corporation

E 056

TANK T-9 SECONDARY CONTAINMENT CALCULATIONS

DWG. D-60347

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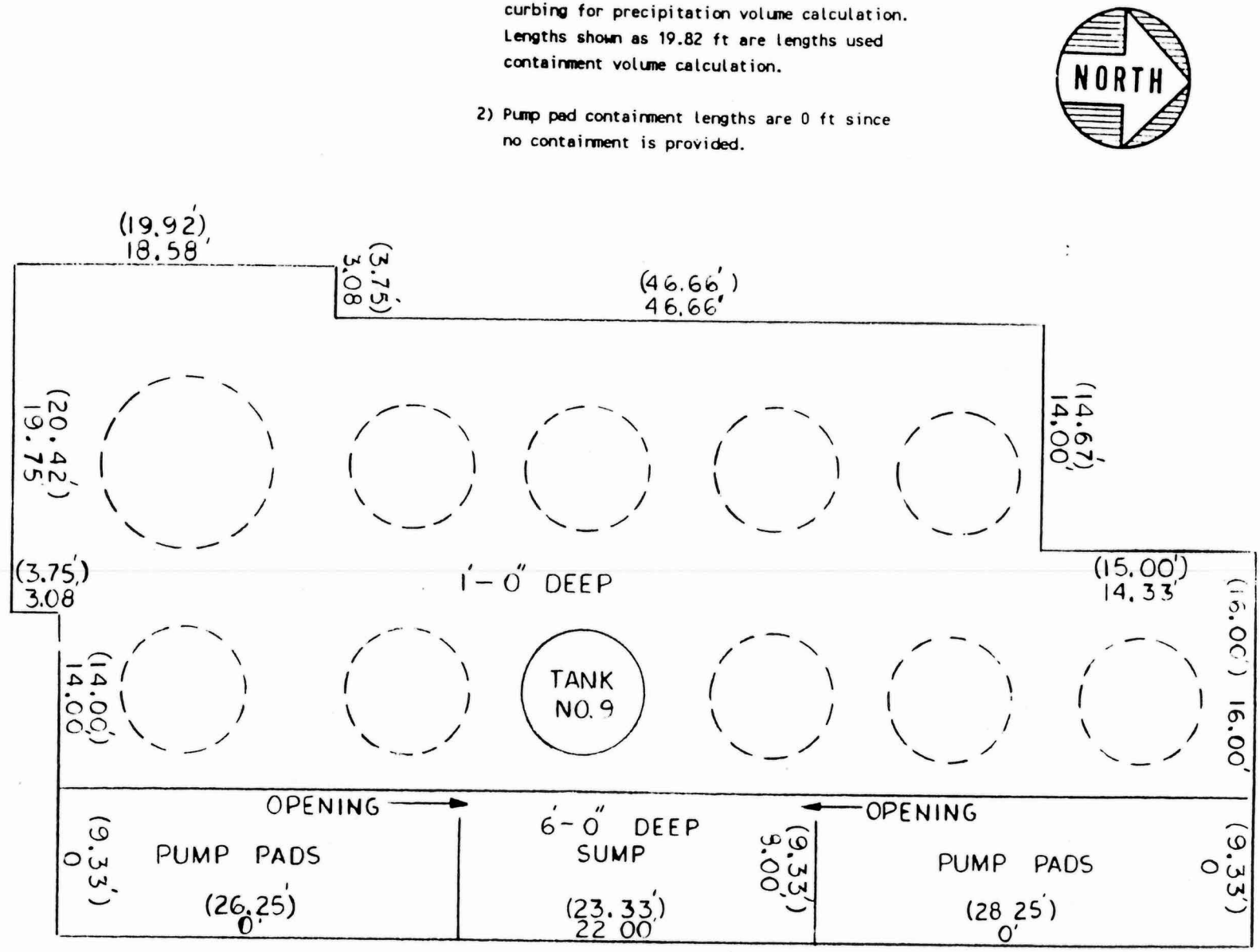
NOTE: 1) Lengths shown as (19.82 ft) include Dike curbing for precipitation volume calculation. Lengths shown as 19.82 ft are lengths used containment volume calculation.

2) Pump pad containment lengths are 0 ft since no containment is provided.



NO	REVISIONS	Drwn	App	Date

Drawn By KGK Date 6/92
Dsgn By ____ Date ____
Chkd By ____ Date ____
App ____ Date ____
SCALE 1/2

BLDG. NO. M-22

TANK T-9 CONTAINMENT
(DWG TSC9)

OXY
Occidental Chemical Corporation

DWG. D-60343

1992
057

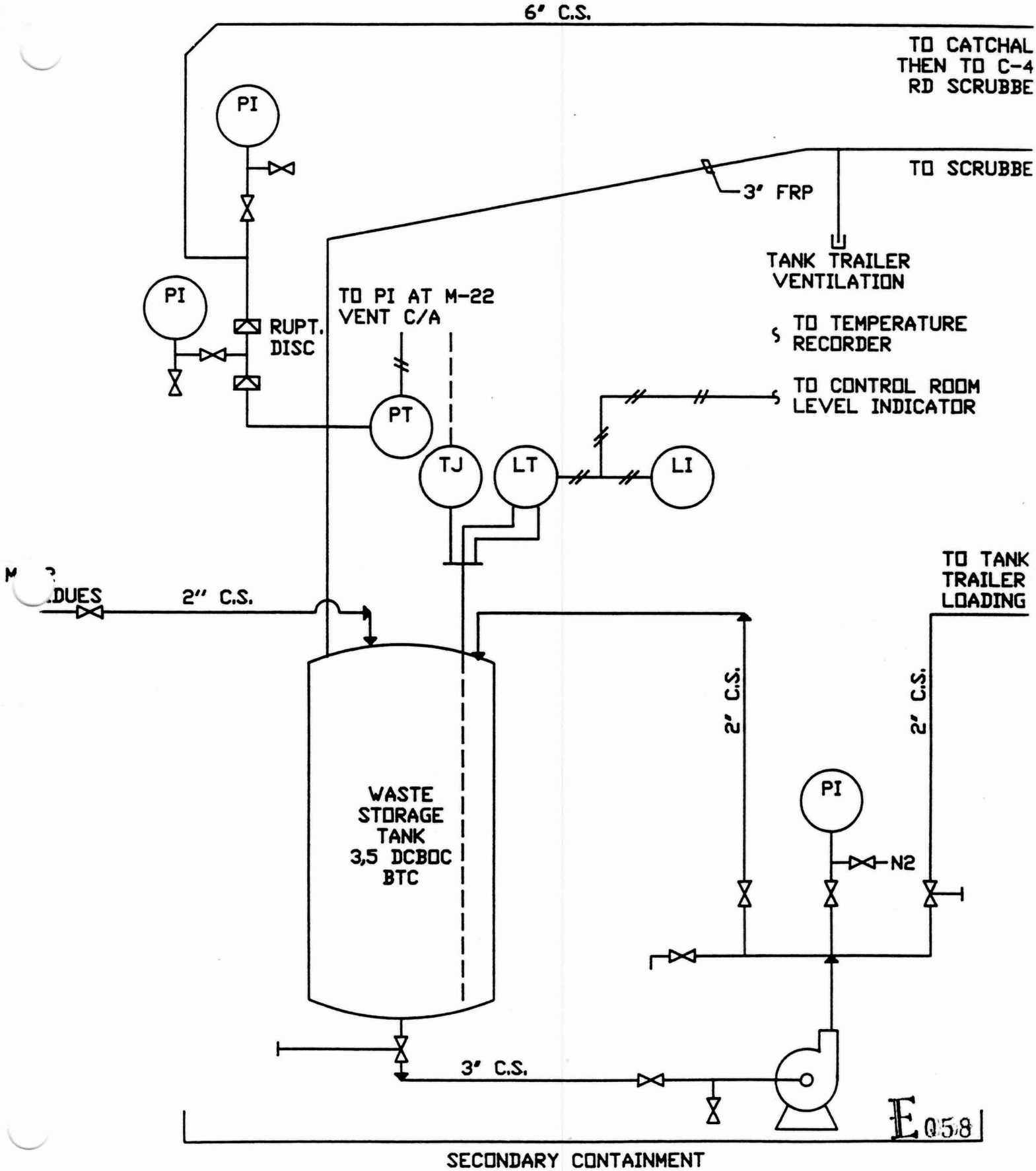


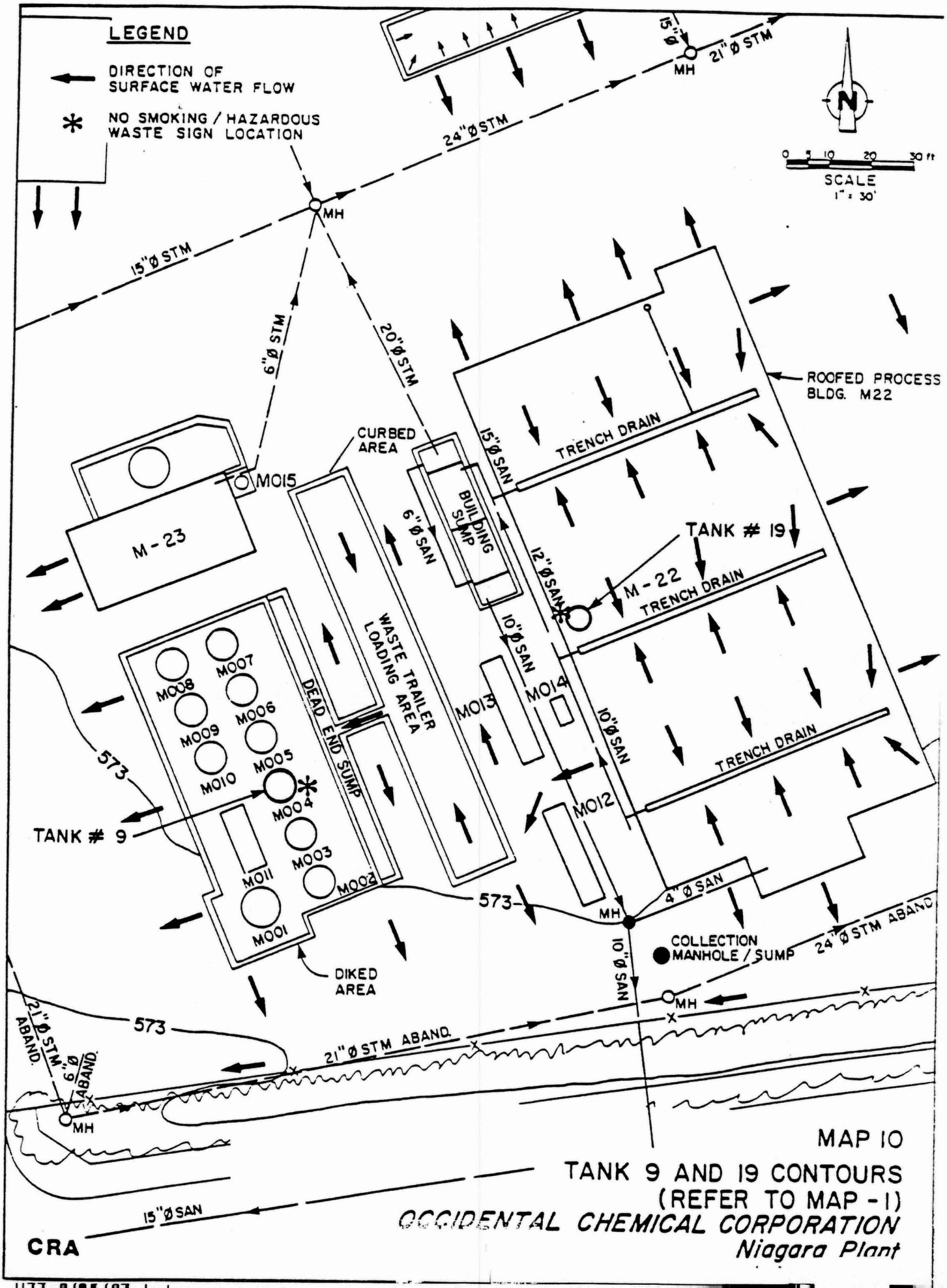
FIGURE TF9

M-22 MIXED RESIDUE WASTE TANK

OCCIDENTAL CHEMICAL CORPORATION

EPA ID# NYD000824482

FILE NAME: 62139F01



MAP 10

TANK 9 AND 19 CONTOURS
(REFER TO MAP - 1)

OCCIDENTAL CHEMICAL CORPORATION
Niagara Plant

October 19, 1995

To: J. Czapla

Fm: W. Tubbs

RE: **External Inspection of the Mixed Residue Tank**
CC: 982, EQ #6164327, M-22 Tank Farm

An external inspection including an ultrasonic inspection with the DME meter was performed at the request of J. Czapla on 10/19/95 to determine the condition of the vessel. A thickness profile is shown on the attached drawing.

Discussion of Findings:

The insulation and visible parts of the O.D. are in good condition. A summary of the thickness readings is shown below:

	Orig. Nominal Thickness	Current Thickness	Minimum Thickness
Top Head	.50"	.51"	.18"
Shell	.438"	.44"	.12"
Bottom Head	.50"	.42"	.18"

Recommendations:

Continue the tank in service. The next internal visual inspection is due 10/2000.

The next external visual inspection is due 10 /19/96.

C.C. P.Schlau, M.Zak, Files

A:\6164327.044

E 000