

SPECIAL RE-REVIEW  
FINAL DETERMINATION  
DECLASSIFICATION CONFIRMED

BY R.E. Baker DATE 2-25-82  
BY P. Cleary DATE 3-2-89  
TO: File

BEST AVAILABLE COPY

-1- DECLASSIFIED

5-3603

- Copy #1 - H.M. Parker  
→ 2 - C.C. Gamertsfelder -  
C.M. Patterson  
3 - J.W. Healy-L.D. Turner  
4 - F.P. Seymour-C.R.E. Merkle -  
M.L. Mickelson-300 Area file  
5 - F.B. Vaughan-J.D. Ellett  
6 - W.C. Kay-700 Area file  
7 - Yellow file  
8 - Pink file

Classification Cancelled (Change to)  
~~Cleared 1-1-82-1-1-80~~  
By Authority of ~~Specialist~~  
Classification Specialist  
~~By L. Clark, Date 10-2-80~~

Classification Cancelled (Change to)

Declassified,

By Authority of May 1973

DDC

P. Cleary 3-2-89  
SV 3-2-89

August 6, 1946

VEGETATION CONTAMINATION FOR  
SECOND QUARTER OF 1946



The accompanying graphs indicate the trend of vegetation contamination as evaluated from one gram samples counted for 5 to 60 minutes on a mica window beta set. A correction factor of 3 for self-absorption of the beta contamination in the sample has been applied.<sup>(1)</sup> There is included a graph of the estimated number of Curies of radio iodine dissolved per week by the two separation plants.

Samples of various species of vegetation were taken in areas of high and low contamination. The variation in counting rate between samples taken in high contamination was 8x. The variation in areas of low contamination was 2x. Dry, leafy material seems to give the maximum counting rate in any given location of sampling.

Since the number of Curies that are evolved from the stacks of the separation plants has decreased considerably, the amount of contamination near the area has remained about the same while in outlying areas it has decreased. Tolerance levels <sup>(2)</sup> exist near the separation plants and near Hanford.

Off-Area locations have not been as consistently surveyed although more complete surveys were obtained from M.I. personnel.

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L.D.Turner } To File  
J.W.Healy }

-2-

8/6/46

The Off-Area surveys indicate a greater area of contamination on vegetation to the North and Northeast of the separation plants. Some contamination (.07  $\mu\text{c}/\text{kg}$ )<sup>(3)</sup> was observed 50 miles North of Spokane, Washington. One spot to the South and West, near the Dalles, Oregon indicated .15  $\mu\text{c}/\text{kg}$ .<sup>(3)</sup>

L. D. Turner

J. W. Healy

LDT/JWH:mlw

- REFERENCES: (1) "Vegetation Contamination for First Quarter of 1946", Doc. 3-3495, 5/1/46  
J. W. Healy to File.
- (2) "Tolerable Concentration of Radio Iodine on Edible Plants", Doc. 7-3217, 1/14/46  
H. M. Parker to W. D. Norwood.
- (3) #75-E, "H.I. Environs Report for the Week Ending 6/12/46", Doc. 7-4238, 6/14/46  
C. C. Gamertsfelder to F. B. Vaughan.

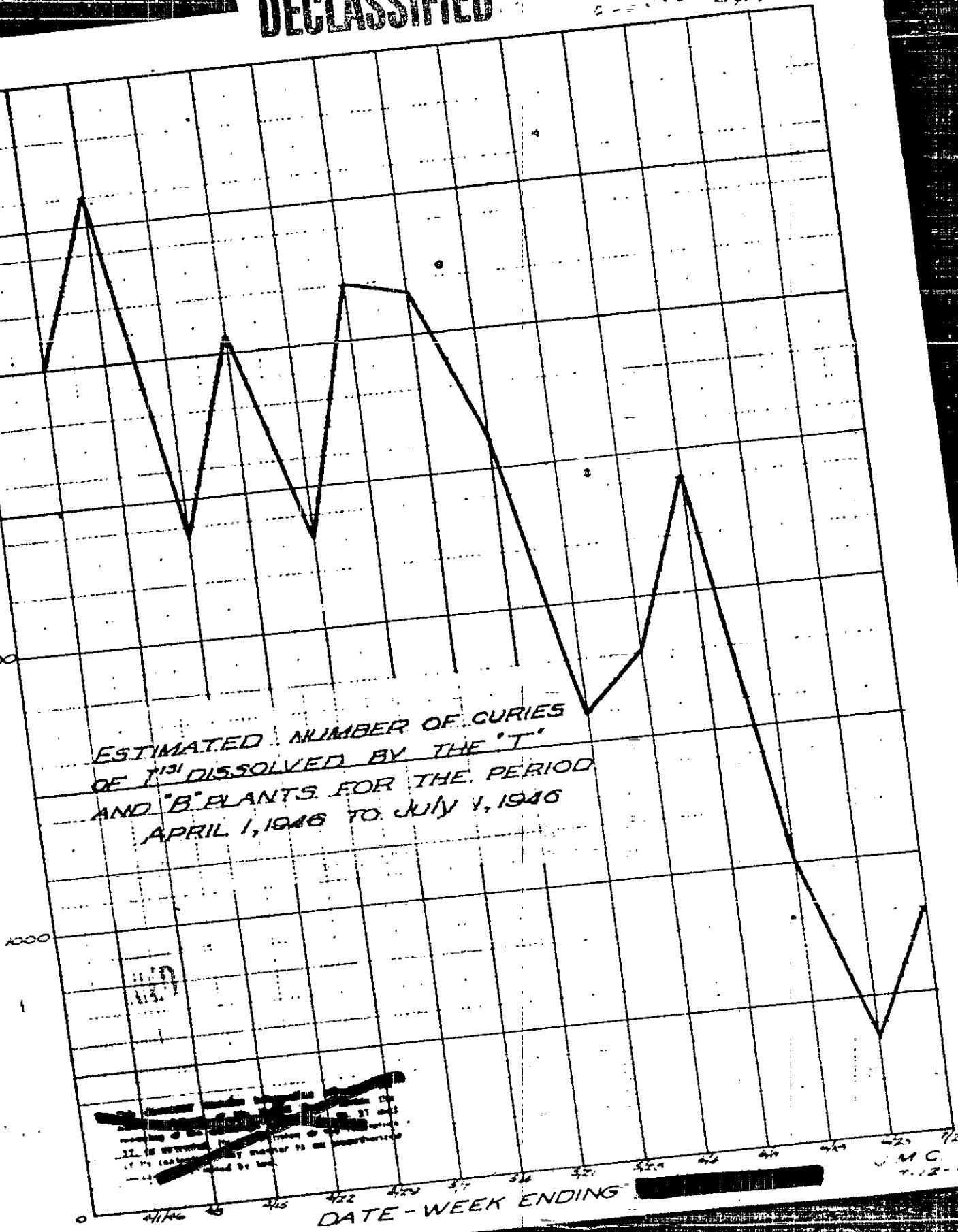
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0-3-63

CURIES  $T^{33}$   
PER WEEK

ESTIMATED NUMBER OF CURIES  
OF  $T^{33}$  DISSOLVED BY THE 'T'  
AND 'B' PLANTS FOR THE PERIOD  
APRIL 1, 1946 TO JULY 1, 1946

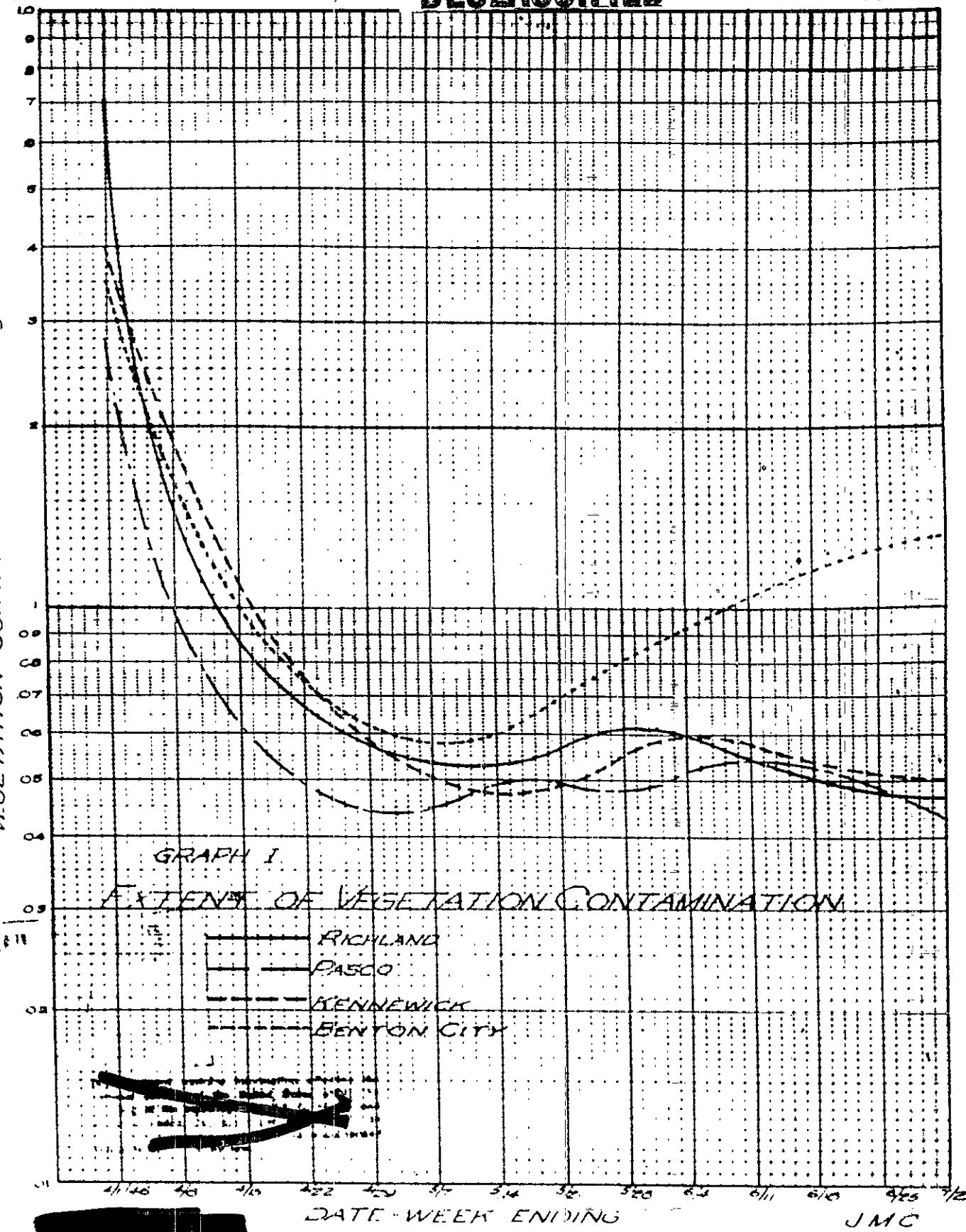


J.M.C.  
7-12-46

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VEGETATION CONTAMINATION - MC/FG

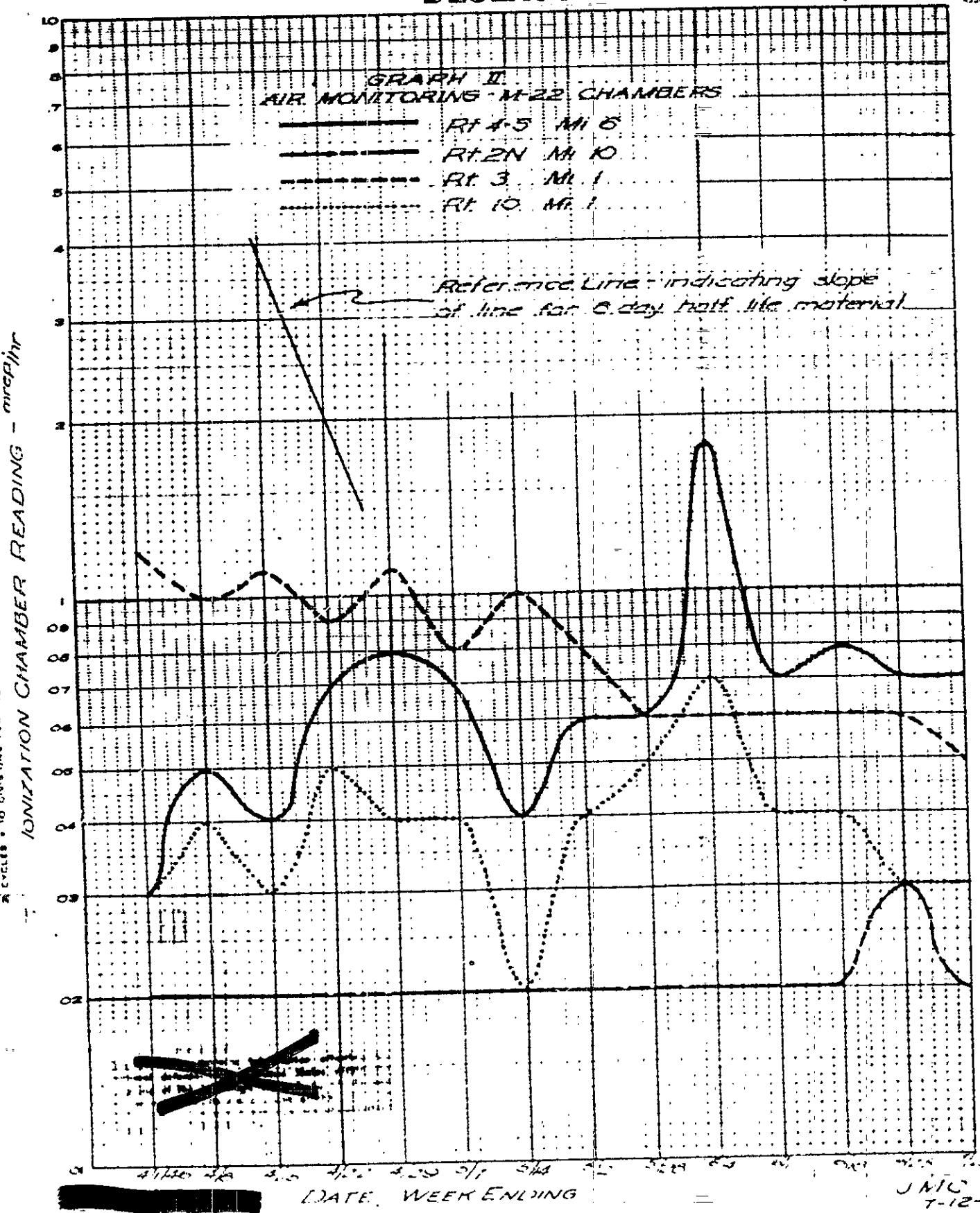


JMC

7-18-46

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2-16-63

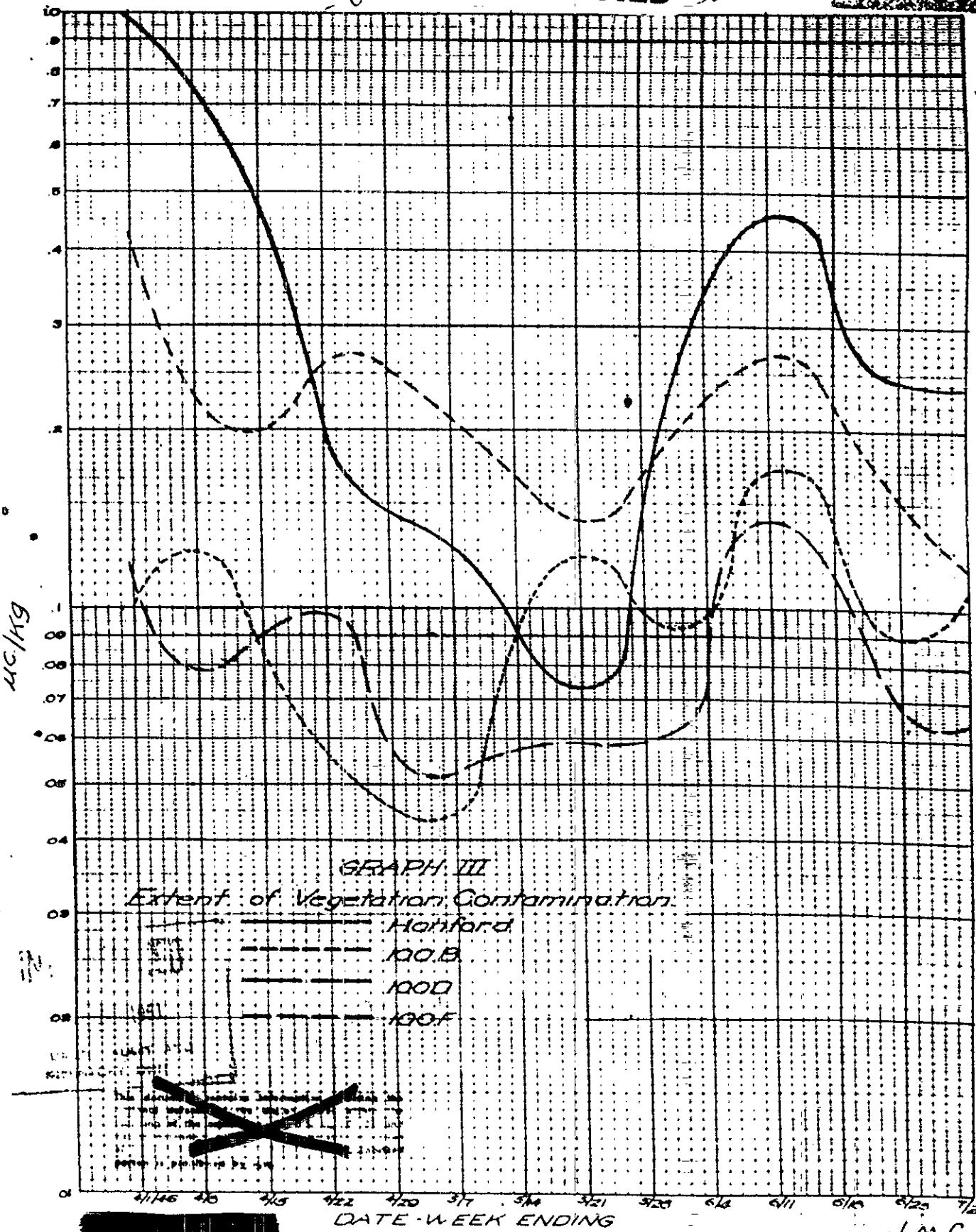


b - DECLASSIFIED

36-C3

FUJICON DIVISION CO.

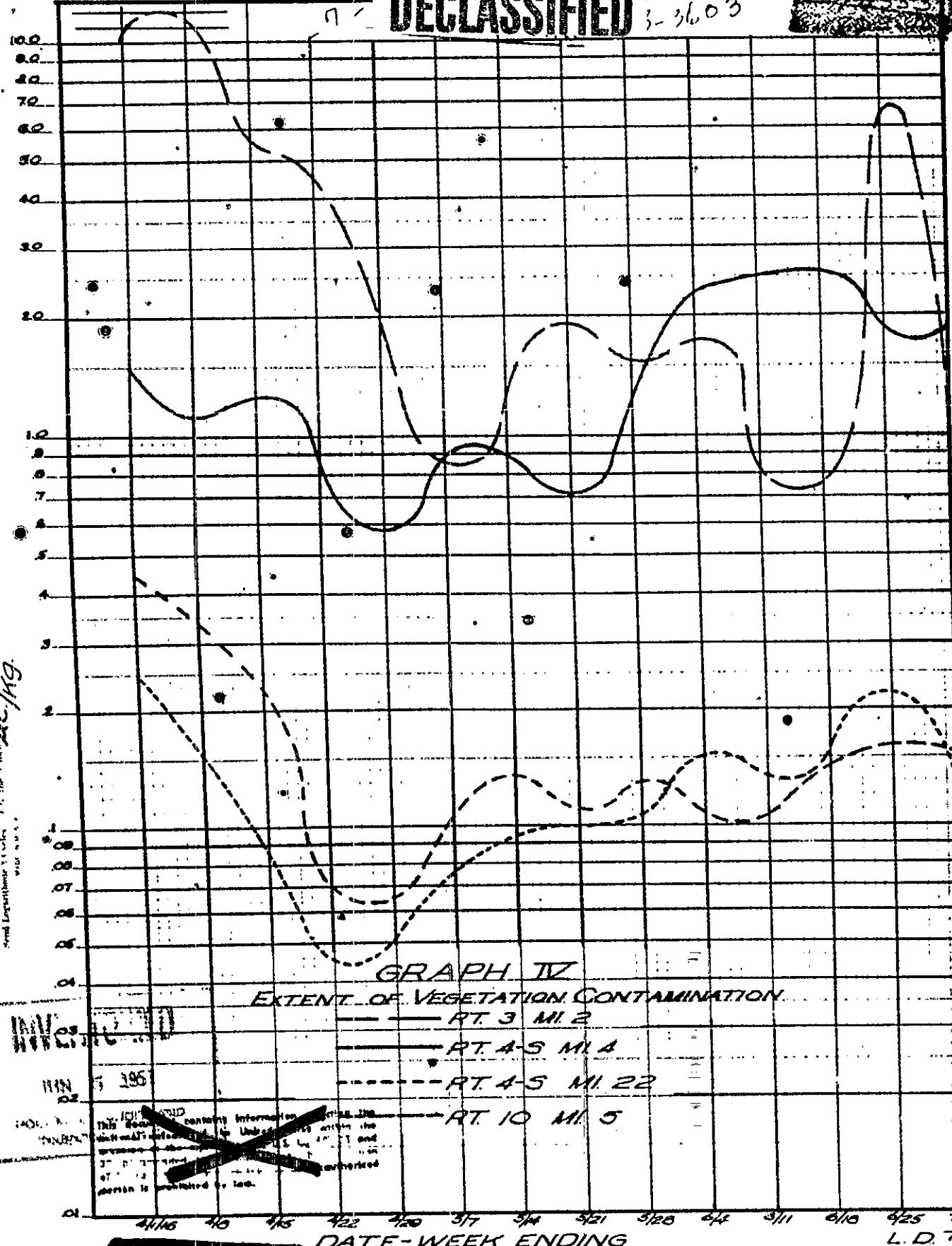
NO. 340 U210 DIGITIZING GRAPH PAPER  
SEMI LOGARITHMIC  
2 CYCLES X 10 DIVISIONS PER INCH



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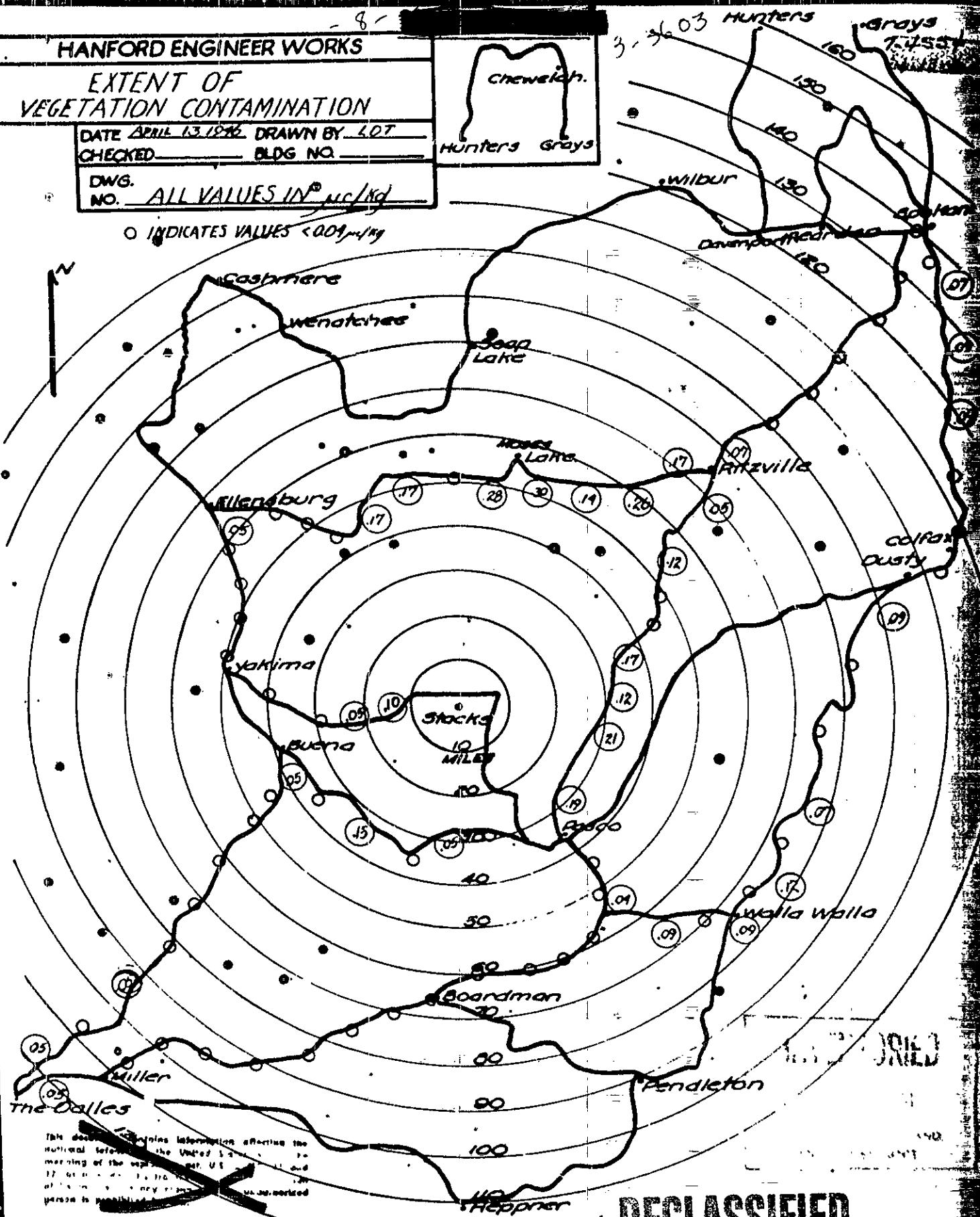
## HANFORD ENGINEER WORKS

## EXTENT OF VEGETATION CONTAMINATION

DATE APRIL 13 1986 DRAWN BY LDT  
CHECKED BLDG NO

DWG.  
NO. ALL VALUES IN<sup>°</sup> NC/ND

O INDICATES VALUES < 0.01 mg/kg



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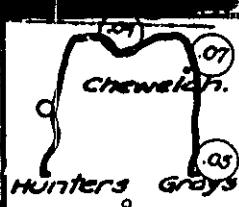
- 9 -

HANFORD ENGINEER WORKS  
EXTENT OF  
VEGETATION CONTAMINATION

DATE MAY 22, 1996 DRAWN BY E.P.T.  
CHECKED \_\_\_\_\_ BLDG NO. \_\_\_\_\_

DWG.  
NO. ALL VALUES IN  $\mu\text{Ci}/\text{kg}$

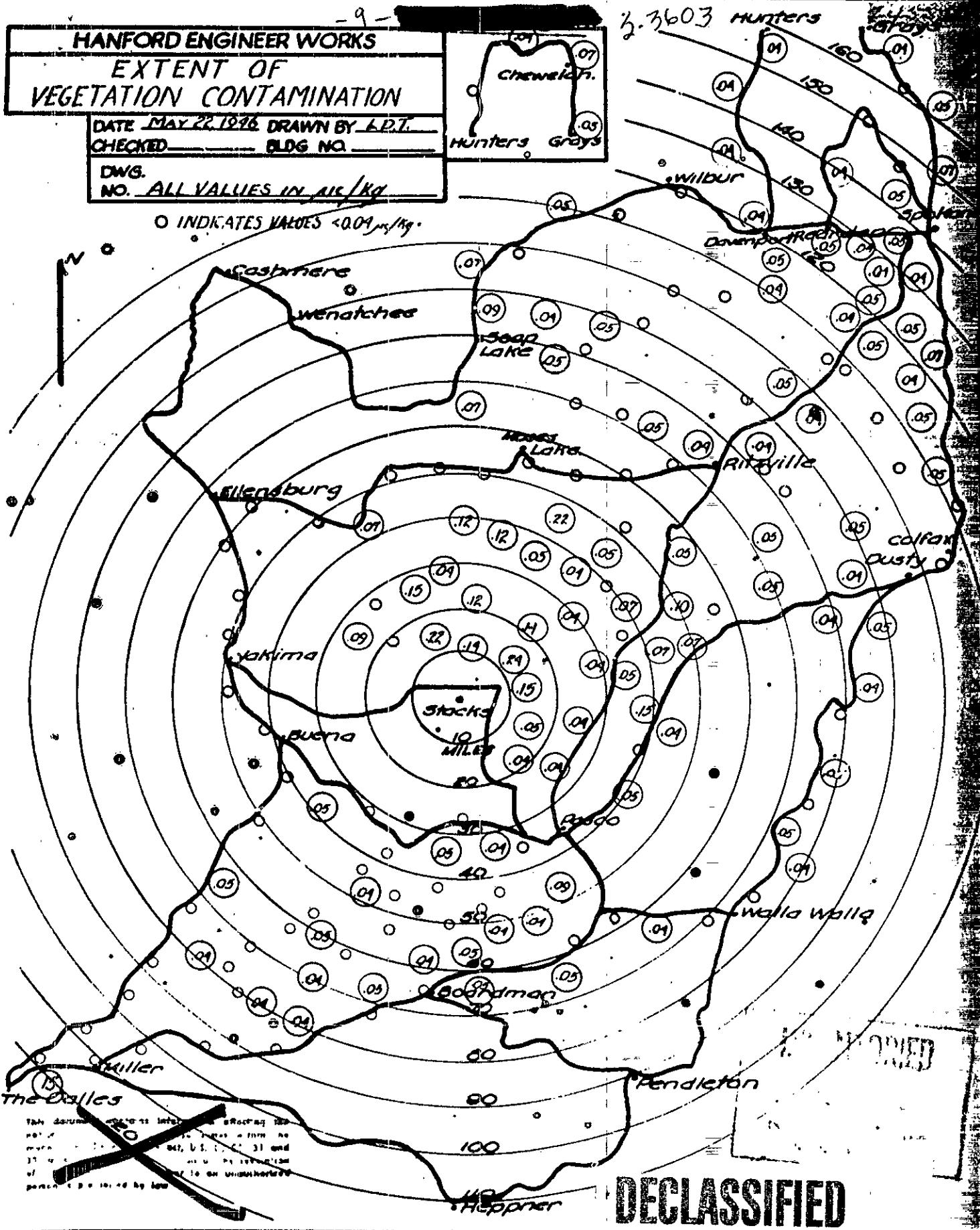
O INDICATES VALUES  $< 0.01 \mu\text{Ci}/\text{kg}$ .



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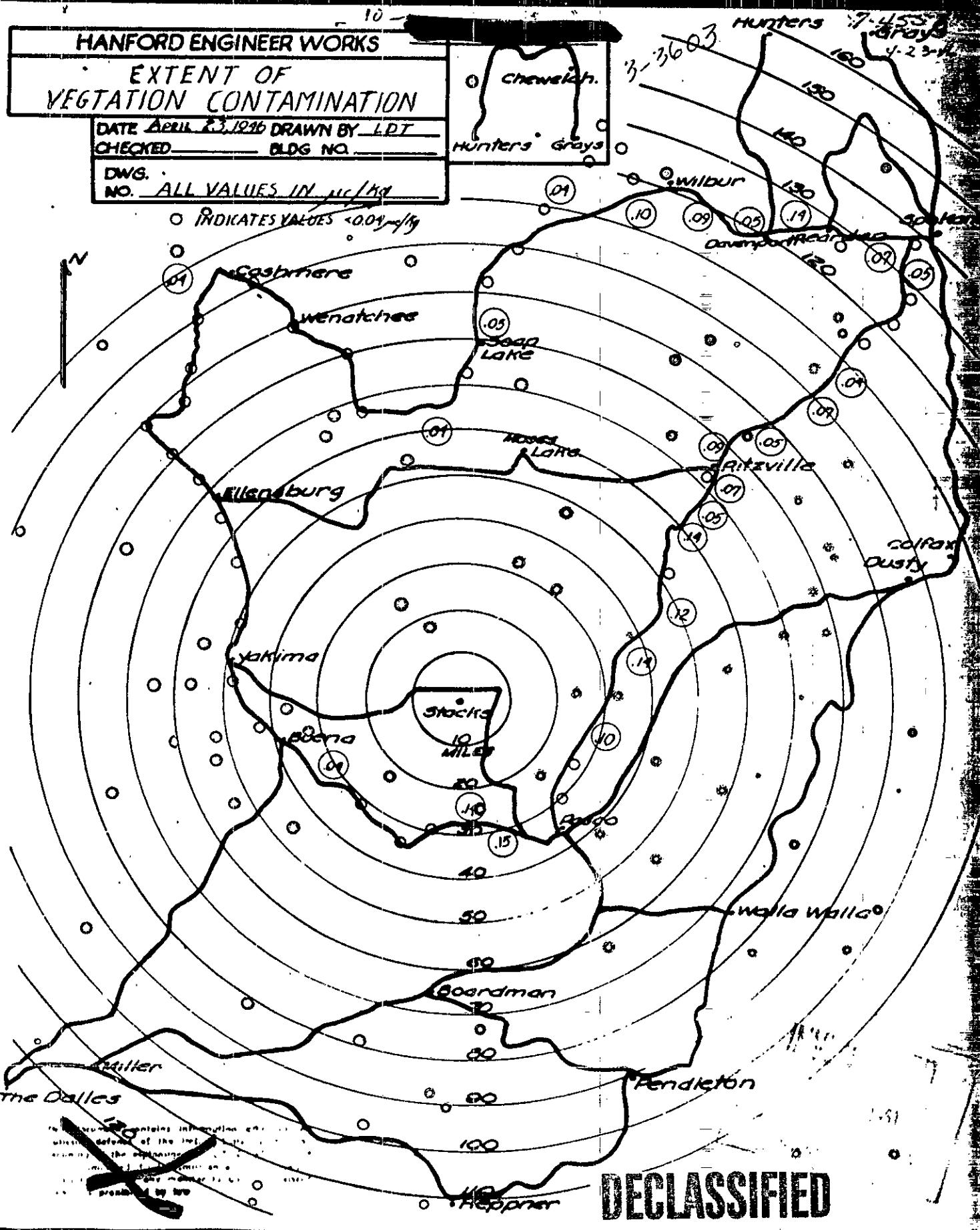
HANFORD ENGINEER WORKS

EXTENT OF  
VEGETATION CONTAMINATION

DATE April 23, 1946 DRAWN BY LPT  
CHECKED \_\_\_\_\_ BLDG NO. \_\_\_\_\_

DWG.  
NO. ALL VALUES IN  $\mu\text{C}/\text{kg}$

○ INDICATES VALUES  $< 0.03 \mu\text{C}/\text{kg}$



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