PLAINTIFF'S EXHIBIT EXX 145
PENGAD-Bayonne,N.J

Air Analyses by
Chopin & West

Dr. W. C. Albert
Refinery Laboratory

Dear Bill:

In trying to analyze the results of the air analyses which have been made bi-monthly by Drs. Chopin and West, I have plotted the dust count, ammonia, chlorides, chlorine, SO_2 and H_2S for the year 1954 on the attached grafts for the four corners of the refinery. The type of graft used is one with zero in the center and with the quantities plotted along lines showing the direction of the wind at the time the sample was taken. The distance for one unit is measured from the center along the wind direction line. As an example, all dust counts of 10 would fall on a circle with a radius of ten units from the center.

Please look over these plots and let me know if you can agree with the points below and/or if you can suggest others which the data may show:

1. The plots show that we have taken a lot of samples and from nearly every wind direction. If these were continued for several years any bad offender should be located.
2. The data to date does not show any very bad conditions in the area.
3. The data seems to indicate that Ethyl, Schuylkill, General Chemical, Solvay and Copolymer affect the conditions in the plant more than other industries.
4. The data indicates that Esso is the largest contributor of H_2S and this should be checked.
5. Gulf States produces appreciable concentrations of SO_2.
6. The Cat. Crackers contribute considerably to the dust fall.
7. There are some analyses that can only be explained by assuming that the wind previously was blowing in one direction carrying some characteristic contaminant. The wind then changed and brought air containing this contaminant back from another direction than from the plant from which the contaminant originally came.

I would appreciate your comments as soon as convenient.

Yours very truly,

J. E. MILLER

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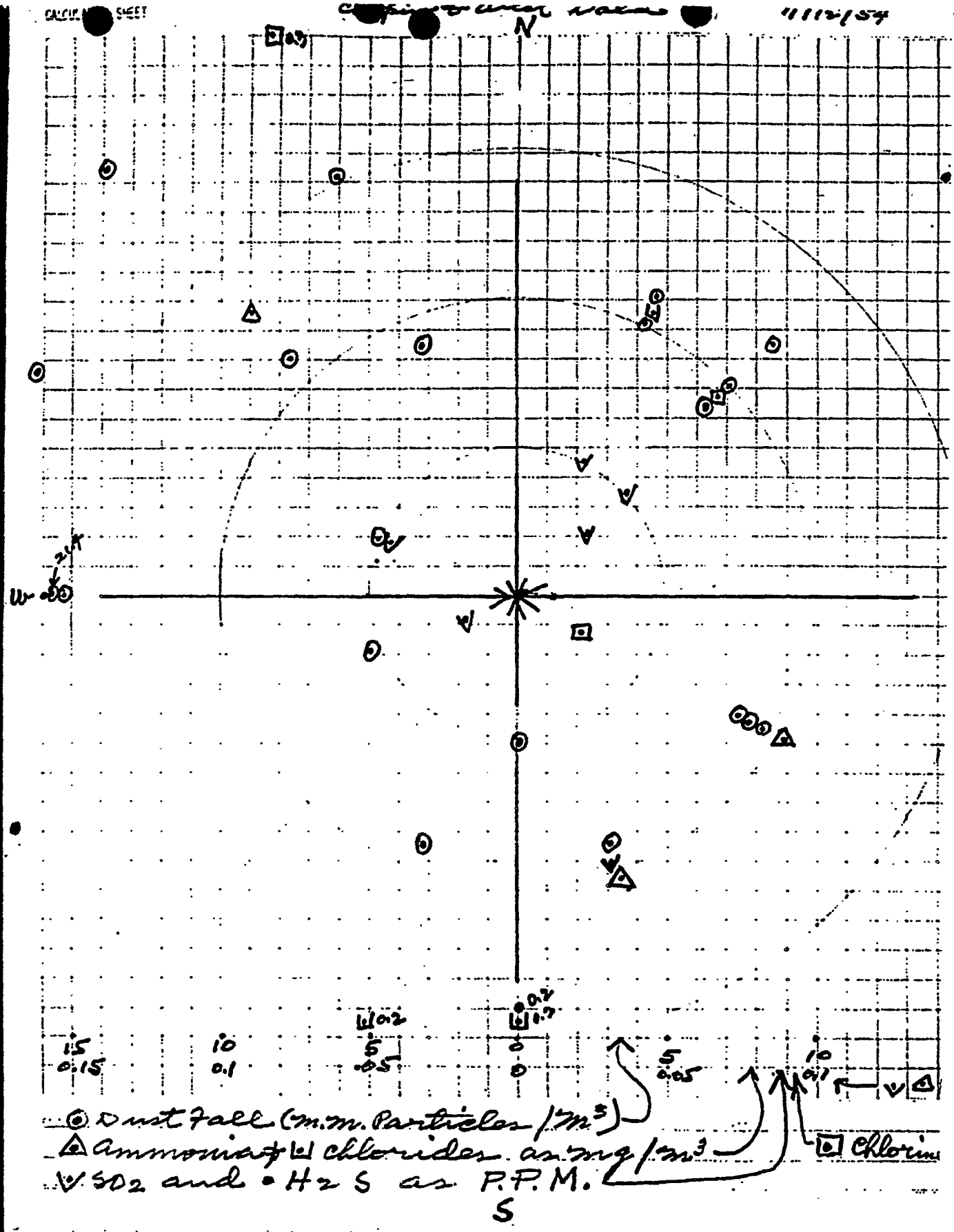
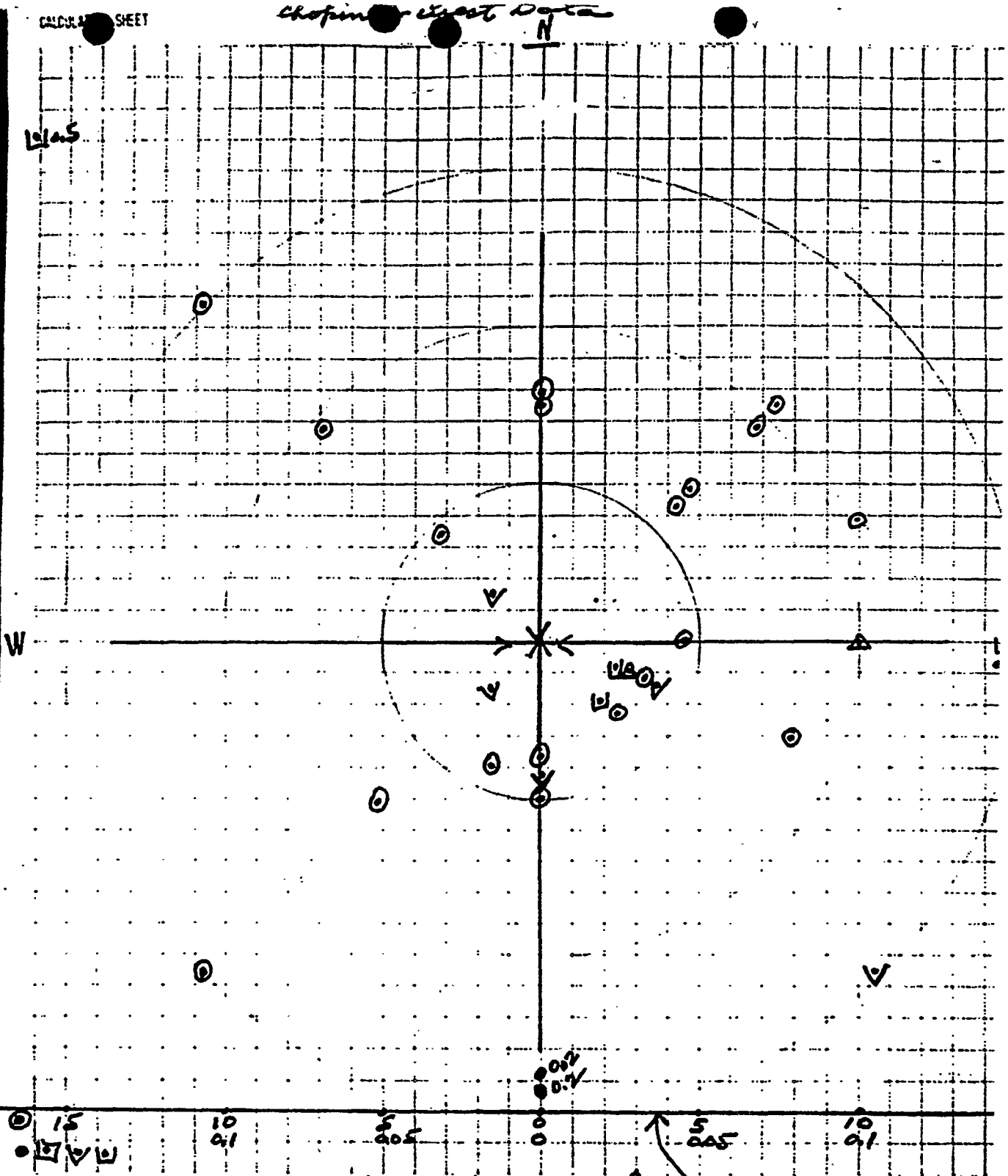
Attachments
cc: Mr. Fred Venable


N
W
15
0.15
10
0.1
5
.05
0
0
5
0.05
10
0.1
0.2
0.2
1.7
Dust Fall (m.m. Particles / m³)
Ammonia + chlorides as mg / m³
SO2 and H2S as P.P.M.
Chlorin
S

CALCULATION SHEET

Chopin Test Data



⊙ Dust Fall in MM Particles / M^3

△ Ammonia mg / M^3 & ⊡ Chlorides (same units) & ⊡ Chlo

▽ SO_2, • H_2S as P.P.M all on lower scale.

S

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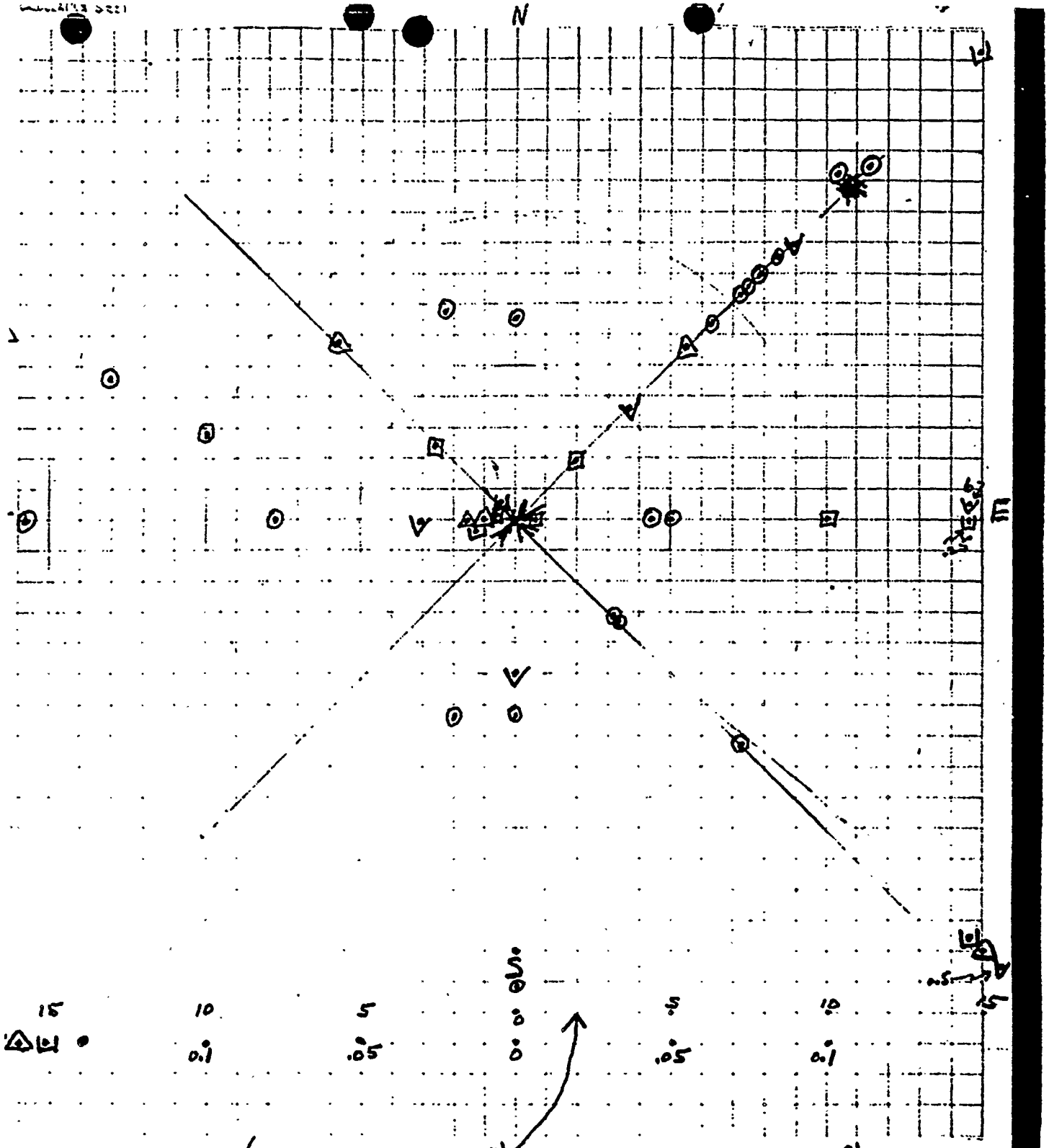
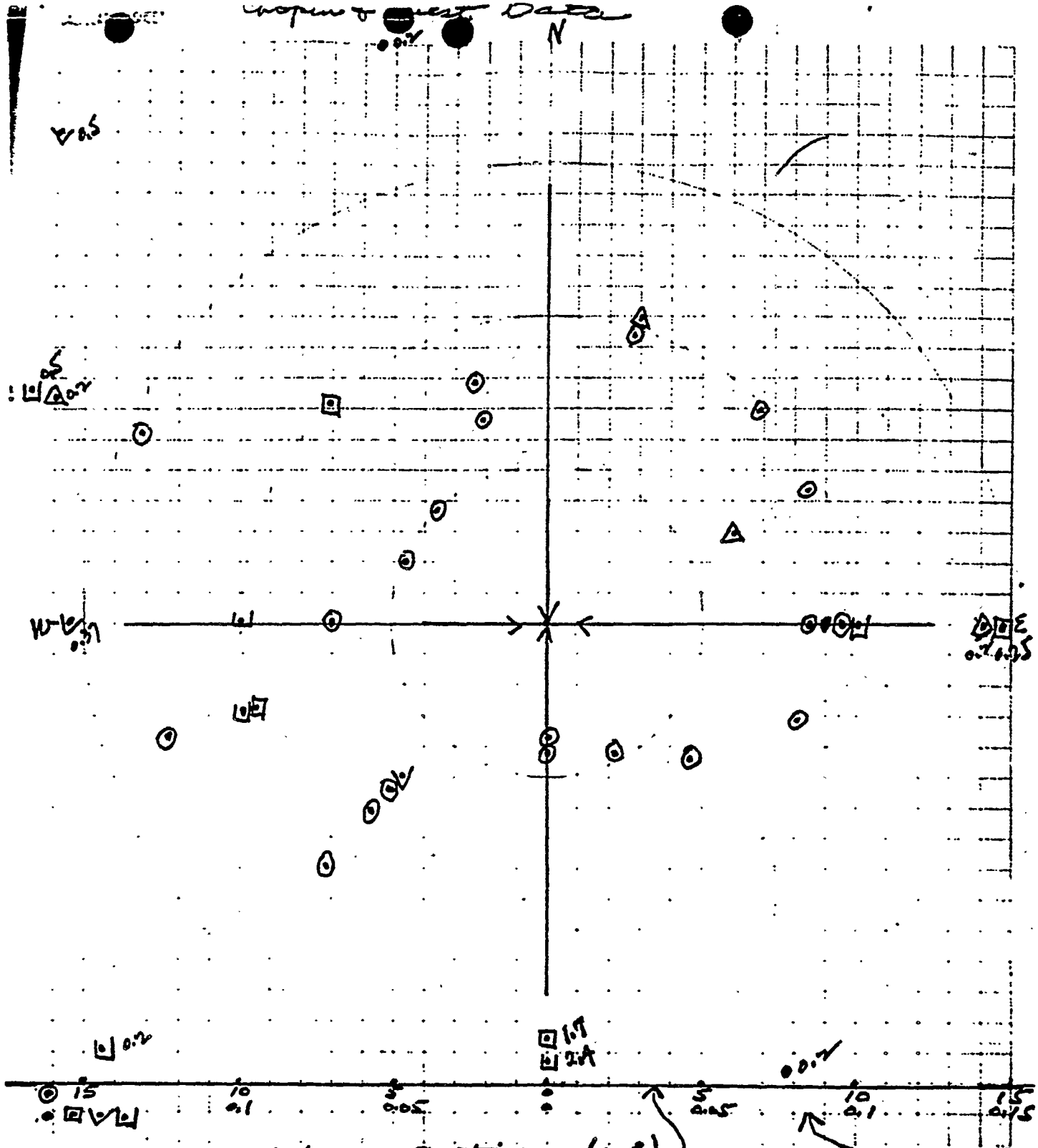


⊙ Dust counts (m.m Particles/m^3). △ ammonia (mg/m^3). ——
⊡ Chlorides (mg/m^3) ⊡ Chlorine (PPM). .....
▽ SO_2 (P.P.M). • H_2S (P.P.M.). Latter fine on lowered scale.



⊙ Dust count (m.m. Particles / m³)

△ ammonia (mg/m³) ⊡ Chlorides (mg/m³), ▽ SO_2 (PPM)

• H_2S (P.P.M) inner scale also. ⊡ Chlorine in P.P.M on inner scale.

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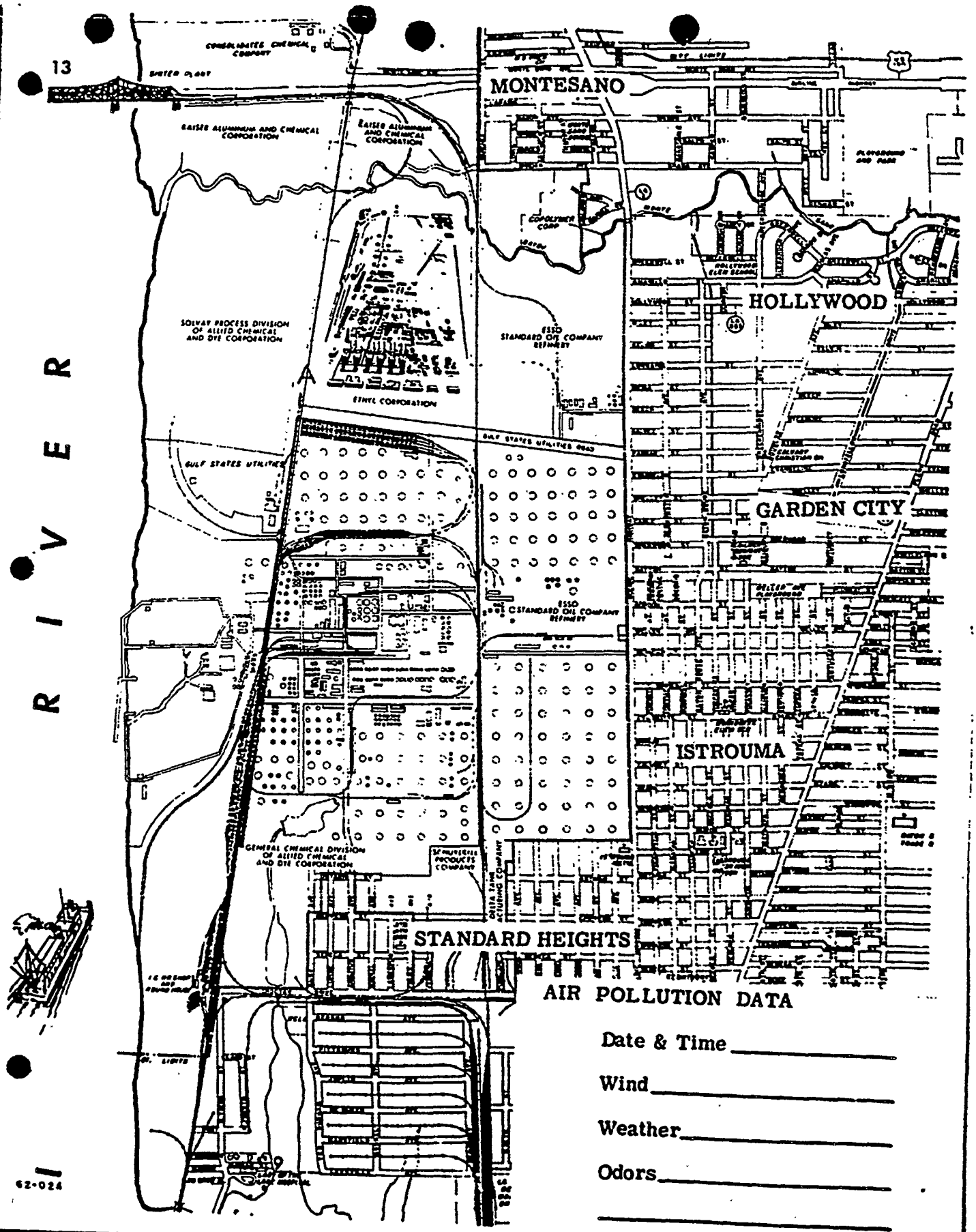

AIR POLLUTION DATA

Date & Time _____

Wind _____

Weather _____

Odors _____

_____

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