

KCBraun
 5-22-47

Vapor Pressure and Pentane Content
for Mixtures of Light and Aromatic Gasolines
 By Donath & Hirschberger, Ludwigshafen, 31 January 1941

The attached curves, Fig. 1 & 2, show the calculated vapor pressures and pentane contents of mixtures of the following gasolines:

	Light Gasoline	Aromatic Gasoline	
		1 Type CV2b	2 Type DHD
% - 100° C	abt. 100	30	50
% Pentane (1)	12-40	5	10
Vapor Press. (Reid 38°)	0.4-0.77	0.2 (2)	0.3 (3)

(1) 90% iso-C₅

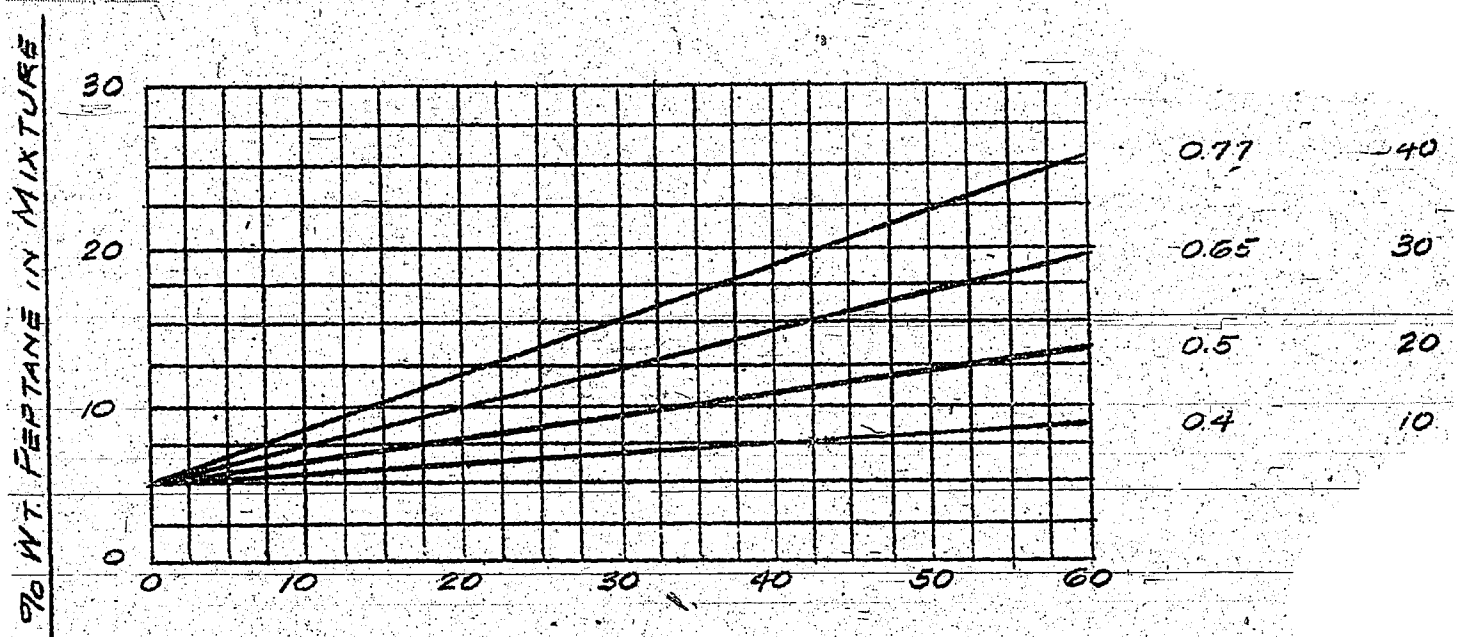
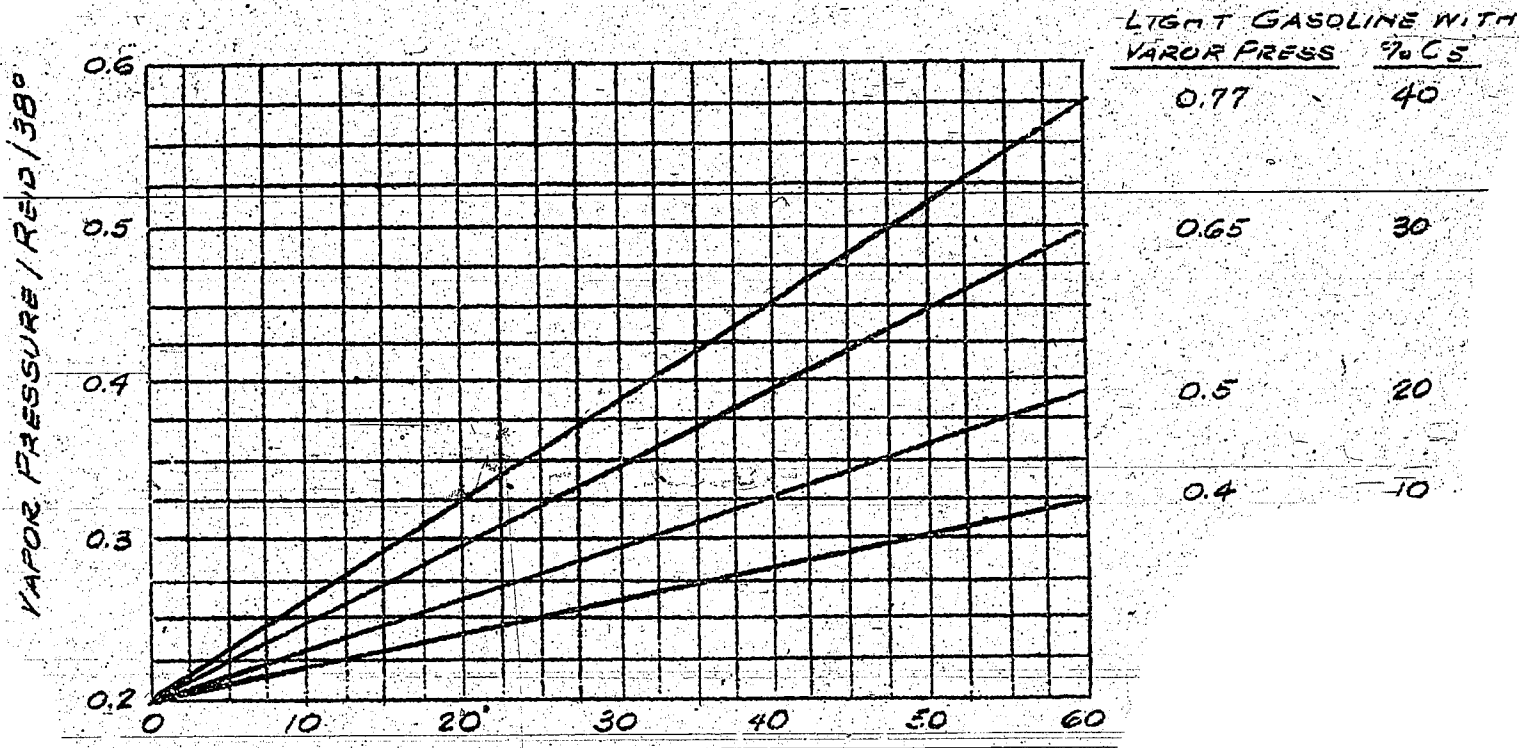
(2) free of butane (V.P. higher at present due to up to 4% C₄)

(3) free of butane (vap. press. possibly a little lower)

The curves show that it would be improper to set the vapor pressure of the light gasoline at 0.4 or 0.5, 0.8 would be correct, though the designation "free of butane" is good enough. In mixtures with 20% light gasoline content, all the C₅ of the light gasoline, about 40%, can be disposed of in the mixture with a vapor pressure of 0.4.

MIXTURES OF LIGHT GASOLINE AND AROMATIC
GASOLINE WITH 5% C₅ (CV₂B) ABOUT 30°-100°C
AND VAPOR PRESSURE OF 0.2 ATM.

VAPOR PRESSURE & PENTANE CONTENT

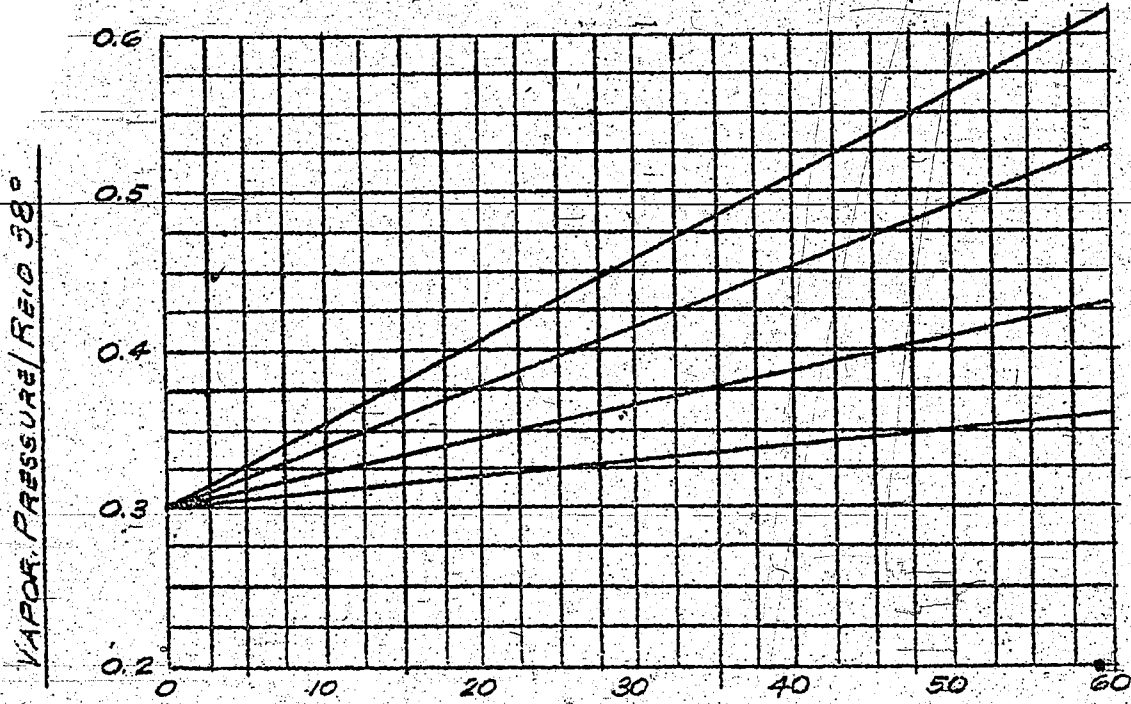


% WT. LIGHT GASOLINE IN MIXTURE WITH AROMATIC GASOLINE, VAP. PRESS. 0.2 ATM, 5% C₅ (CV₂B)

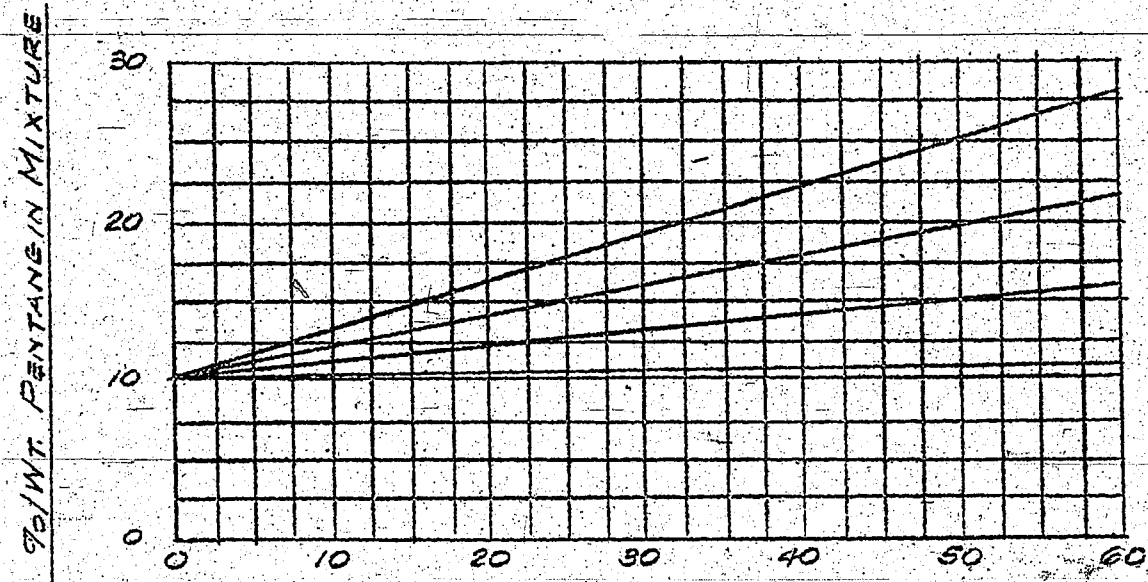
MIXTURES OF LIGHT GASOLINE AND AROMATIC GASOLINE WITH 10% C5 (DHD) APT. 50% - 100°C AND VAPOR PRESS. 0.3 ATM.

VAPOR PRESS. AND PENTANE CONTENT

LIGHT GASOL. WITH VAP. PRESS. %C5



VAP. PRESS.	%C5
0.77	40
0.65	30
0.5	20
0.4	12



VAP. PRESS.	%C5
0.77	40
0.65	30
0.5	20
0.4	12

% WT. LIGHT GASOL. IN MIXTURE WITH AROMATIC GASOL. VAPOR PRESS. 0.3 ATM., 10% C5 (DHD)