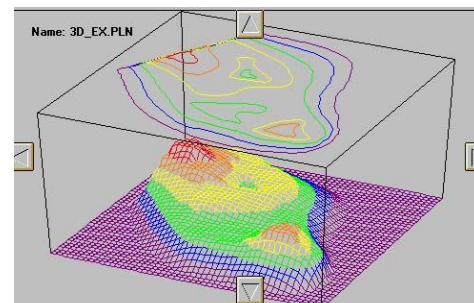


PLAN & Plan Plus

Planimetering Software from The Logic Group



Easy to Use! Define maps through digitizing map on a digitizing tablet or digitizing a displayed map image. The program computes contour areas, map volume, and reserves. Parts of maps, such as leases, can be defined and results computed for that part of the map. See below for a list of features.

PLAN Features

- * Digitize maps including well locations using continuous or point by point mode
- * Digitize maps with digitizing tablet or from map images on screen
- * Digitize bottom hole location/well path
- * Reads pdf, jpg, bitmap, tiff, or png map files
- * Easily define faults and partial contours
- * Edit contours or parts of contours
- * Compute contour areas and map volumes
- * Compute OOIP, OGIP, and Reserves
- * Analyze parts of maps such as leases
- * Analyze isopach, pore volume, or hydrocarbon pore volume maps
- * Print detailed reports with maps

Plan Plus Features

Everything from PLAN plus:

- * Shows map including well locations in 3D
- * Estimates drainage areas from volumetrics
- * Determines isopach maps from structure maps
- * Discretizes values from grids laid over maps
- * Analyzes complex maps
- * Recontours maps with different contour intervals
- * Displays cross-sections from top and bottom structure maps
- * Prints plot maps in different colors
- * Supports WINTAB
- * Can import many formats including Geographix XYZ, UTM

Name: WEB1.PLN Map Type: ISOPACH Scale: 1000 ft/in

Hydrocarbon Calculations

Δh of top contour = 5 ft

Oil
 Gas - Bgi
 Gas - p, z, t

Vol = 2,322 ac-ft
 φ = 0.2000 frac
 So = .6 frac
 Bo = 1.1 lb/STB
 Rf = 2 frac

Calculate X Close

OOIP = 1,965,266 bbl
 Reserves = 393,053 bbl
 HC / Vol = 846.4 bbl/ac-ft
 have = 4,5248 ft

Contour Area

Height ft2	acre
40	9,716 0.2230
30	501,900 11.5
20	3,194,025 73.3
10	13,371,872 307.0
0	21,692,044 498.0
Sink Holes	
0.1	165,068 3.7894
10	1,058,646 24.3

Volumetrics

Method	ft3	ac-ft
Trapezoid	279,211,054	6,410
Pyramid	269,149,024	6,179
Trap/Pyra	270,818,048	6,217
Quadratic	333,158,283	7,648
Step	170,775,104	3,920
Ratio	250,700,656	5,755
Simpson	278,640,608	6,397
3/8 Rule	270,945,536	6,220

Hydrocarbon Calculations

Oil
 Gas - Bgi
 Gas - p, z, t

Vol = 0.00 ac-ft
 φ = 0.00 frac
 So = 0.00 frac
 Bo = 0.00 lb/STB
 Rf = 0.00 frac

Calculate X Close

Display: Full Map
 Δh of top contour = 5 ft
 Menu: Change Top h, Hydrocarbons, Print Report, Add Files, Volume Layers, C/L Area Report
 Graph X Close

The Logic Group 512-656-8195

Serving the Oil & Gas Industry for over 30 years