

Chevron Data Science Challenge

Data Dictionary

base_training.csv, base_test.csv

Features

WellID	well identifier (unrelated to standard well identifiers)
Subarea	assigned geographic region
Direction	Well drilled vertically or deviates from vertical (directional)
Operator	company operating well
County	county in which well is located
Completion Date	days since Jan 1 st , 1900 to well completion
Completion Year	year well completed
Surface Latitude	latitude of well
Surface Longitude	longitude of well
Depth Total Driller	depth drilled
WB Spacing Proxy	estimate of well spacing (acres/well)
SPBY Spacing Proxy	estimate of well spacing (acres/well) for Spraberry producing wells
Deepest_Zone	deepest perforated zone
Between_Zone	well perforated for formations between these (inclusive)
FracStage	number of fracturing stages
Treatment	number of treatments
Fluid/Water (Gals)	total fluid/water pumped (gal)
Acid(Gals)	total acid pumped (gal)
Gel/x-link (Gals)	total gel pumped (gal)
Other (Gals)	total other liquids pumped (gal)
Proppant - Total (lbs)	total proppant pumped (lbs)

Fluid - Total (Gals)	total fluid volume pumped (gals)
EUR_o (Mstb)	estimated ultimate recovery of oil (Mstb=1000's standard barrels)
	<i>no values entered for base_test</i>

geology_training.csv, geology_test.csv

Features

WellID	well identifier (unrelated to standard well identifiers)
CLFK	Clearfork formation (picked)
U_SPBR	Upper Spraberry formation (picked)
L_SPBR	Lower Spraberry formation (picked)
WFMP	Wolfcamp formation (picked)
WFMP_L	Lower Wolfcamp formation (picked)
WFMP_ATB	Amacker Tippet Base formation (picked)
CLINE	Cline formation (picked)
STRN	Strawn formation (picked)
ATOK	Atoka formation (picked)
BEND	Bend formation (picked)
ATOLA_L	Lower Atoka formation (picked)
MPLM	Mississippian formation (picked)
WDFD	Woodford formation (picked)
DVNN	Devonian formation (picked)
CLFK [MAP]	Clearfork formation (interpolated)
U_SPBR [MAP]	Upper Spraberry formation (interpolated)
L_SPBR [MAP]	Lower Spraberry formation (interpolated)
WFMP [MAP]	Wolfcamp formation (interpolated)
WFMP_L [MAP]	Lower Wolfcamp formation (interpolated)

WFMP_ATB [MAP]	Amacker Tippet Base formation (interpolated)
CLINE [MAP]	Cline formation (interpolated)
STRN [MAP]	Strawn formation (interpolated)
ATOK [MAP]	Atoka formation (interpolated)
BEND [MAP]	Bend formation (interpolated)
ATOLA_L [MAP]	Lower Atoka formation (interpolated)
MPLM [MAP]	Mississippian formation (interpolated)
WDFD [MAP]	Woodford formation (interpolated)
DVNN [MAP]	Devonian formation (interpolated)

completions_training.csv, completions_test.csv

Features

Number	well treatment number
Type	type of treatment
Depth Top	perforated region top
Depth Base	perforated region base
Fluid Amount	amount of fluid pumped
Fluid Units	volume unit
Fluid Type	type of fluid
ProppingAgentAmount	proppant pumped in this region
Propping Agent Units	weight unit
Propping Agent Type	type of proppant
Pressure Breakdown	pressure at which rock fractures
Injection Rate	barrels per minute pump rate
Additive	additive
Mesh Size	proppant grain size