

# Datasheet on 2011 IETP Polymer Project (1)

Attribute/Parameter	
Reservoir	Glauconite K
Project	03-055
Operator	Husky
Reservoir Temperature (°C)	32
Oil Density (kg/m <sup>3</sup> )	945
Solution Gas@ P <sub>b</sub> (m <sup>3</sup> /m <sup>3</sup> )	15.5
Live Oil Viscosity (mPa.s)	55
Connate Water Hardness (ppm)	200
Connate Water Salinity (ppm)	6400
Average Porosity	23%
Average Permeability (md)	721
Dykstra-Parson's Coefficient (V)	.64
Net Thickness (m)	6
Connate Water Saturation	18%
Project Area (Ha)	534
Number of Active Producers	60
Number of Active Injectors	25
Number of Observation Wells	5
OOIP (Project) (e3m <sup>3</sup> )	5087
Formation Volume Factor (Rm <sup>3</sup> /Sm <sup>3</sup> )	1.055
Pore Volume (e3m <sup>3</sup> )	6331
Comparison of Prior to Polymer Injection and 2011 end data	2700m <sup>3</sup> /d to 2400m <sup>3</sup> /d
Cumulative Oil Produced (e3m <sup>3</sup> )	2097
Remaining Reserves (WF) (e3m <sup>3</sup> )	
Ultimate Recovery Factor (% OOIP)	47.5% ASP (41%WF)
Water-Oil Ratio	Cum 11.5 Current 22
Recovery Process (Polymer, ASP, SP, etc)	ASP
Alkali Concentration (wt %)	0.75
Surfactant Concentration (wt %)	0.15 lignin + 0.05 APG
Polymer Concentration (ppm)	1100
Main Slug Size (%PV)	30.6
Chase Polymer Concentration (ppm)	1200
Chase Slug Size (%PV)	

## Datasheet on 2011 IETP Polymer Project (2)

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Attribute/Parameter	
Reservoir	Glauconite K
Project	03-055
Operator	Husky
OOIP (e3m <sup>3</sup> )	5087
PV (e3m <sup>3</sup> )	6331
Average Injection Rate (2011) (m <sup>3</sup> /d)	2470
Time needed to inject 1 PV polymer (years)	7
Oil Rate Response (m <sup>3</sup> /d)	125m <sup>3</sup> /d from 25m <sup>3</sup> /d
Water-Cut Response (reduction)	99% to 94%
Initially Expected Recovery Factor	15%
Latest Indicated Recovery Factor	6.9%
Polymer injected to 2011 end (e3 kg)	4472
Incremental oil to 2011 end (e3 m <sup>3</sup> )	63
Polymer utilization to 2011 end (kg/ inc. Oil-m <sup>3</sup> )	71
Ultimate polymer to be injected (e3 kg)	5250
Ultimate Incremental oil (estimated) (e3 m <sup>3</sup> )	350
Polymer Utilization (ultimate) (kg/ inc. Oil-m <sup>3</sup> )	150
Recommended specific areas of technology focus while extending the scheme to analogous reservoirs	Spend adequate amount of time and effort on lab data
Major Problems Encountered	Scale / Lab Data / water quality
Major Project Accomplishments	Improved water treating capabilities
Next Planned Phase for the Project	N/A