



### WELL LOCATION

Country	Poland
Area	Strzeszewo

### WELL DESCRIPTION

Government approval references	
Operator of well	Conoco Phillips/Lane Energy
Name of well	Strzeszewo LE-1
Well registration number	
Fracturing completion date	14 May 2013
Well depth (TVD meters)	3,063
Top perf depth (TVDm)	2,953.20
Top perf depth (MDm)	3,126.00
Bottom perf depth (TVDm)	2,970.70
Bottom perf depth (MDm)	3,134.50

### HYDRAULIC FRACTURING FLUID DATA

Water volume <sup>1</sup> (m <sup>3</sup> )	593.97
Max mass % of total hydraulic fracturing fluid	85.66%
Proppant (kilograms)	57227.0
Max mass % of total hydraulic fracturing fluid	8.30%
max (mass%) water + proppant=	93.91%

### HYDRAULIC FRACTURING FLUID PRODUCTS

Product Trade Names in Fracturing Fluid (if applicable)	Brenntag, CARBOCeramics, CESI, ChemPur, Donauchem, NALCO, Sibelco
Product Purpose in Well	Acid Corrosion Inhibitor, Biocide, Clean the Perforations, Delayed Crosslinker, Encapsulated Gel Breaker, Friction Reducer, High pH Buffer, Instant Crosslinker, Iron Control Agent, Migrating Clay Stabilizer, Permanent Clay Stabilizer, Prop the Fracture, Prop the Fracture, Thickener
Supplier(s)	AIC191, BIN191, BKA202D, Carbo EconoProp 30/50, CFC102, CSC101, FRA101, GGN101, Hydrochloric Acid (15%), PHA201, White Sand 100 Mesh, White Sand 30/50, XBA201

## HYDRAULIC FRACTURING FLUID CONSTITUENTS

Chemical substance in fracturing fluid <sup>2</sup>	Chemical Abstract Service Number (CAS Number) <sup>3</sup>	Maximum Chemical substance Mass % in Hyd Fracturing Fluid <sup>4</sup>	Comments
Water		85.66000%	
Silica Substrate – Sand (Proppant) (lbs)	66402-68-4	8.25102%	
Hydrochloric Acid – Acid, Hydrochloric (15%)	7647-01-0	0.73601%	
Hydrotreated Light Distillate – FRA101	64742-47-8	0.00177%	
Alcohols, C12-15, ethoxylated	68131-39-5	0.00017%	
Amine Copolymer – CFC102	Proprietary Polymer	0.04426%	
Choline Chloride – CSC101	67-48-1	0.14160%	
Gluteraldehyde – BIN191	111-30-8	0.00791%	
Methanol	67-56-1	0.00016%	
Potassium Carbonate – PHA101	584-08-7	0.05212%	
Propylene Glycol – AIC191	57-55-6	0.02955%	
Formic Acid	64-18-6	0.01477%	
Cinnamaldehyde	104-55-2	0.01477%	
Oxyalkylated Alcohol Based Polymer	34398-01-1	0.00492%	

Chemical substance in fracturing fluid <sup>2</sup>	Chemical Abstract Service Number (CAS Number) <sup>3</sup>	Maximum Chemical substance Mass % in Hyd Fracturing Fluid <sup>4</sup>	Comments
N-naphtha Nicotinamide	770680-45-0	0.00492%	
Aliphatic hydrocarbon – XBA201	Proprietary	0.10419%	
Ulexite	1319-33-1	0.03126%	
Colemanite	1318-33-8	0.00104%	
Ethoxylated Alcohol	78330-21-9	0.00521%	
Ammonium Persulphate – BKA202D	7727-54-0	0.00568%	
Crystalline Silica (quartz)	14808-60-7	0.00106%	
Sasol DHR 200 – GGN101	64742-48-9	0.27534%	
Guar Gum Powder Blend	Proprietary Blend	0.26348%	
Ethylene Glycol – XBA101	107-21-1	0.00492%	
Potassium Hydroxide	1310-58-3	0.00082%	
Sodium Hydroxide – ICA101	1310-73-2	0.00049%	
Tetrasodium EDTA	64-02-8	0.01459%	
Trisodium Nitrilotriacetate	5064-313	0.00073%	

## NOTES

- <sup>1</sup> Water utilised may be any combination of recycled water, produced water or fresh water.
- <sup>2</sup> All chemical additive substance data is provided by suppliers and is consistent with Material Safety Data Sheets where applicable.
- <sup>3</sup> See [www.echa.europa.eu](http://www.echa.europa.eu) to find ECHA numbers; if cell is blank the substance is subject to confidential business information but the regulator has been fully appraised.
- <sup>4</sup> Because maximum percentages are shown, total of water, proppant and HF chemical substance components may be greater than 100%.
- <sup>5</sup> All well data has been submitted by the relevant well operator and whilst OGP has taken care to accurately publish this on the website neither OGP nor the well operator shall be liable for any use of or reliance on such data by any third party or member of the public.

## INCLUDED COMMENTS TO DATA

None