



SULFUR IN NATURAL GAS ANALYSIS

PRIMARY DB KEY:
LEASE #:

NAME/DESCRIP : CASCADE CREEK 632-13-22

PROJECT NO. : 201803079
COMPANY NAME : LARAMIE ENERGY II, LLC
OFFICE / BRANCH: GRAND JUNCTION, CO
CUSTOMER REF:
PRODUCER :
FIELD DATA

ANALYSIS NO. : 02
ANALYSIS DATE: MARCH 20, 2018 14:33
SAMPLE DATE : MARCH 17, 2018 11:00
TO:
EFFECTIVE DATE:

SAMPLE CYCLE:
SAMPLE PRES. : psig
FLOW PRES. : psig
LAB PRES: psig
SAMPLE TEMP. : °f
AMBIENT TEMP.: °f
H2O BY STAIN TUBE: - #/mmcf
FIELD COMMENTS:
LAB COMMENTS:

SAMPLE TYPE:
PROBE :
CYLINDER NO. : 1L TEDLAR
SAMPLED BY : GALE MCENDREE
SAMPLING COMPANY: EMPACT
H2S BY STAIN TUBE: - ppm
CO2 BY STAIN TUBE: - Mol %

COMPONENT

**SULFUR
ppm mole
(ul/L)**

Hydrogen Sulfide (H2S)	28.2
Carbonyl Sulfide (COS)/Sulfur Dioxide (SO2)	BDL
Methanethiol (MeSH)	BDL
Ethanethiol (EtSH)	BDL
Dimethylsulfide (DMS)	BDL
Carbon Disulfide (CS2)	BDL
i-Propanethiol (i-PrSH)	BDL
t-Butanethiol (t-BuSH)	BDL
n-Propanethiol (n-PrSH)	BDL
Methylethylsulfide (MES)	BDL
s-Butanethiol (s-BuSH)	BDL
i-Butanethiol (i-BuSH)	BDL
Thiophene (TP)	BDL
Diethylsulfide (DES)	BDL
n-Butanethiol (n-BuSH)	BDL
Dimethyldisulfide (DMDS)	BDL
Unidentified Sulfurs - Light Ends	BDL
Methylthiophenes (MTP)	BDL
2-Ethylthiophene (2-ETP)	BDL
Methylethyldisulfide (MEDS)	BDL
Dimethylthiophenes (DMTP)	BDL
Diethyldisulfide (DEDS)	BDL
Benzothiophene (BzTP)	BDL
Unidentified Sulfurs - Mid Range	BDL
Methylbenzothiophenes (MBzTP)	BDL
Dimethylbenzothiophenes (DMBzTP)	BDL
Trimethylbenzothiophenes (TMBzTP)	BDL
Dibenzothiophenes (DBzTP)	BDL
Methyldibenzothiophenes (MDBzTP)	BDL
<u>Unidentified Sulfurs - Heavy Ends</u>	<u>BDL</u>
TOTAL SULFUR	28.2

* ASTM D5504

** DETECTION LIMIT DETERMINED TO BE 0.1 ppm (ul/L) Sulfur - BDL (BELOW DETECTION LIMIT)

The data presented herein has been acquired by means of current analytical techniques and represents the judicious conclusion EMPACT Analytical Systems, Inc. Results of the analysis can be affected by the sampling conditions, therefore, are only warranted through proper lab protocol. EMPACT assumes no responsibility for interpretation or any consequences from application of the reported information and is the sole liability of the user. The reproduction in any media of this reported information may not be made, in portion or as a whole, without the written permission of EMPACT Analytical Systems, Inc.