

Crude Monitor

BRINGING THE CRUDE OIL INDUSTRY TOGETHER WITH DATA.

COQA St Louis

June 2017

Crude Quality Inc.

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Who, What, When, Where, Why, How?

- What is CrudeMonitor
- Why it Exists
- Who is Involved
- How it Works
- Where it Happens

- Website Analytics
- Special Services

What is CrudeMonitor?

This site was established, and is maintained, in the interest of **communicating data** and information pertaining to the quality of western Canadian crudes as well as quality issues faced by the industry at large. We are committed to providing information that is **current and dependable**, and relevant to existing and anticipated industry needs.

What is CrudeMonitor?

crudemonitor.ca

Home Monthly Reports Tools Library Industry Resources Contact Us

Conventional Heavy

Description and Comments

What is Conventional Heavy?

Conventional Heavy is a blend of conventional Lloyd Blend, Lloyd Kerr Robert, and Smiley.

Most Recent Sample Comments

CHV-61 0, Jan 5, 2017

Conventional Heavy was consistent with simulated distillation results are included.

Last 6 Samples // Monthly Reports

Enbridge Pooled Crude Quality Specification

Pooled crudes at Superior are subject to quality specifications set by Enbridge. Test methods employed, typical results, testing frequency, and mitigation/penalty details can be found from the most recent document available [here](#). Contact Enbridge Pipelines directly for additional information regarding pooled crude quality requirements.



Export Conventional Heavy Data

Download Individual PDF Sample Report

Select sample date...

Custom Excel Report

To export Conventional Heavy data for .XLS, please either select each attribute by checking each individual box, or select all properties for download further below.

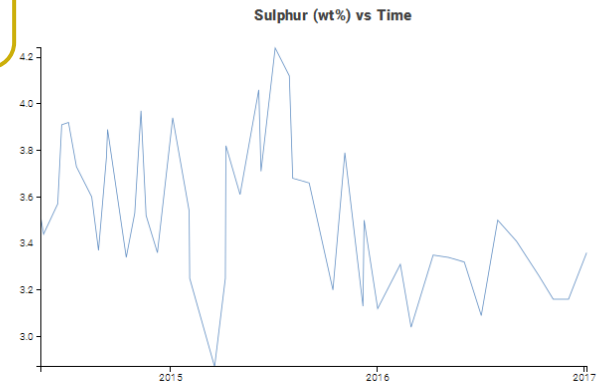
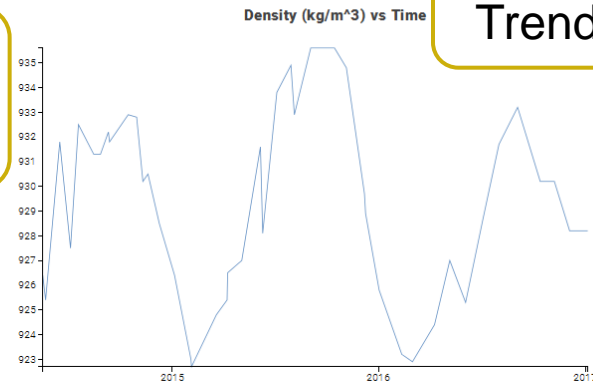
Select all properties for export.

[DOWNLOAD XLS CUSTOM REPORT](#)

Export Tools

OPEN FULLSCREEN CHARTS

Time Trending



Choose a property:

Density (kg/m³)

Choose a property:

Sulphur (wt%)

Basic Analysis

Property	Most Recent Sample	6 Month Average	1 Year Average	5 Year Average
<input type="checkbox"/> Density (kg/m ³)	928.2	930.3	927.8	929.2
<input type="checkbox"/> Gravity (°API)	20.8		20.9	20.6
<input type="checkbox"/> Sulphur (wt%)	3.36		3.28	3.52
<input type="checkbox"/> MCR (wt%)	9.60		9.50	9.47
<input type="checkbox"/> Sediment (ppmw)	237		177	187
<input type="checkbox"/> TAN (mgKOH/g)	1.04		1.15	1.09
<input type="checkbox"/> Salt (ptb)	16.8		17.9	16.3
<input type="checkbox"/> Nickel (mg/kg)	41.1		48.0	50.4
<input type="checkbox"/> Vanadium (mg/kg)	107.0		119.8	127.2
<input type="checkbox"/> Olefins (wt%)	-		ND	ND

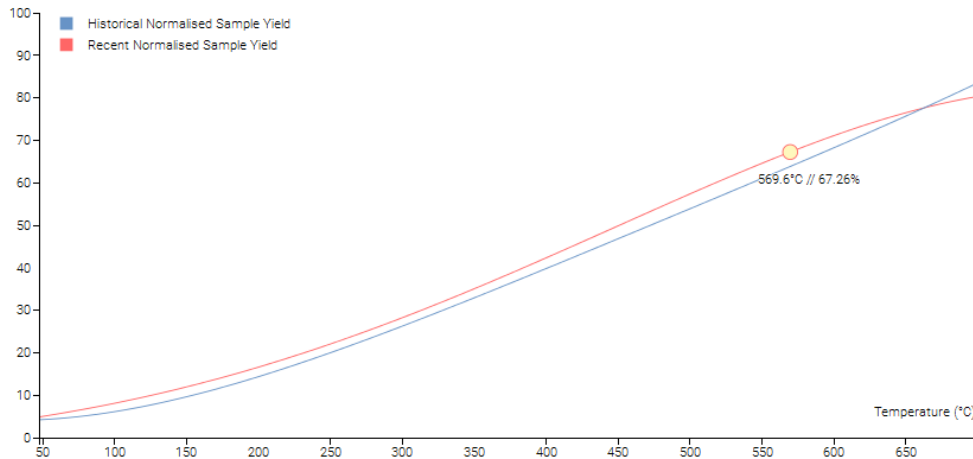
Monthly Analysis

ND indicates a tested value below the instrument threshold.

What is CrudeMonitor?

HTSD

Current Yield Profile



Component Data

Name	Group	Mass %	Volume %	Mol %	Molecular Weight
ethane	P2	0.002	0.005	0.005	30.070
propane	P3	0.045	0.082	0.081	44.097
i-butane	I4	0.496	0.823	0.682	58.124
n-butane	P4	1.192	1.904	1.640	58.124
t-butene-2	O4	0.017	0.00		56.108
i-pentane	I5	1.725	2.5		72.151
1,4-pentadiene	O5	0.000	0.0		68.119
pentene-1	O5	0.002	0.00		70.135
n-pentane	P5	1.909	2.821	2.116	72.151

DHA

Naphtha (IBP to 190°C)

Volume % Recovery:	18.50	Mass % Recovery:	13.81
Density (kg/m ³):	693.4	API gravity (°API):	72.39
Sulphur (wt%):	0.061	Butanes (vol%):	14.16
Nitrogen (wt%):	---	Pentanes (vol%):	25.86
C12 Minus (vol%):	99.64	Hexanes (vol%):	14.04
Full C30+			

Distillate (190 to 343°C)

Volume % Recovery:	18.23	Mass % Recovery:	17.31
Density (kg/m ³):	882.1	API gravity (°API):	28.77
Sulphur (wt%):	1.400	TAN (mg KOH/g):	0.44
Nitrogen (mass ppm):	41.8	MCRT (mass %):	ND
Nickel (mass ppm):	---	Vanadium (mass ppm):	---

Gas Oil (343°C to 527°C)

Volume % Recovery:	23.54		24.17
Density (kg/m ³):	953.7		16.73
Sulphur (wt%):	3.024	TAN (mg KOH/g):	1.76
Nitrogen (mass ppm):	1,367.8	MCRT (mass %):	0.08
Nickel (mass ppm):	ND	Vanadium (mass ppm):	ND

Residuum (527°C+)

Volume % Recovery:	39.73	Mass % Recovery:	44.71
Density (kg/m ³):	1,045.4	API gravity (°API):	3.74
Sulphur (wt%):	5.757	TAN (mg KOH/g):	1.19
Nitrogen (mass ppm):	6,276.6	MCRT (mass %):	22.28
Nickel (mass ppm):	---	Vanadium (mass ppm):	---
Viscosity (cSt at 60°C):	1,132,153	Viscosity (cSt at 100°C):	18,914

Mini-Assay

What is CrudeMonitor?

Condensate

Density (kg/m³): 659 - 759
Gravity (°API): 55 - 84

- ▶ Cochin Condensate (CHN)
- ▶ Condensate Blend (CRW)
- ▶ Fort Saskatchewan Condensate (CFT)
- ▶ Peace Condensate (CPR)
- ▶ Pembina Condensate (CPM)
- ▶ Rangeland Condensate (CRL)
- ▶ Southern Lights Diluent (SLD)

MSW Feeder

Density (kg/m³): 815 - 826
Gravity (°API): 39 - 42

- ▶ Federated (FD)
- ▶ Peace (MPR)
- ▶ Pembina (P)

Light Sweet

Density (kg/m³): 818 - 825
Gravity (°API): 40 - 42

- ▶ Mixed Sweet Blend (MSW)
- ▶ Rainbow (RA)

Heavy Sour - Dilsynbit

Density (kg/m³): 935 - 936
Gravity (°API): 19 - 20

- ▶ Albian Heavy Synthetic (AHS)

Pooled Crudes - ex Superior

Density (kg/m³): 831 - 932
Gravity (°API): 20 - 39

- ▶ Conventional Heavy (CHV)
- ▶ Hardisty Synthetic Crude (HSC)
- ▶ Light Sour Blend (LSB)
- ▶ Medium Sour Blend (MSB)
- ▶ Premium Conventional Heavy (PCH)
- ▶ Premium Synthetic (PSY)
- ▶ Synbit Blend (SYB)
- ▶ Synthetic Sweet Blend (SYN)

Light Sour

Density (kg/m³): 823 - 847
Gravity (°API): 35 - 41

- ▶ BC Light (BCL)
- ▶ Boundary Lake (BDY)
- ▶ Gibson Light Sour (GLS)
- ▶ Koch Alberta (CAL)
- ▶ Moose Jaw Tops (MJT)
- ▶ Pembina Light Sour (PLS)

Sweet Synthetic

Density (kg/m³): 835 - 868
Gravity (°API): 31 - 38

- ▶ CNRL Light Sweet Synthetic (CNS)
- ▶ Husky Synthetic Blend (HSB)
- ▶ Long Lake Light Synthetic (PSC)
- ▶ Premium Albian Synthetic (PAS)
- ▶ Shell Synthetic Light (SSX)
- ▶ Suncor Synthetic A (OSA)
- ▶ Syncrude Sweet Premium (SSP)

Heavy Sour - Synbit

Density (kg/m³): 930 - 936
Gravity (°API): 19 - 21

- ▶ Long Lake Heavy (PSH)
- ▶ Statoil Cheecham Synbit (SCS)
- ▶ Surmont Heavy Blend (SHB)

Medium Sour

Density (kg/m³): 839 - 874
Gravity (°API): 30 - 37

- ▶ Hardisty Light (MBL)
- ▶ Medium Gibson Sour (MGS)
- ▶ Midale (MSM)
- ▶ Peace Pipe Sour (SPR)

Heavy Sour - Conventional

Density (kg/m³): 916 - 933
Gravity (°API): 20 - 23

- ▶ Bow River North (BRN)
- ▶ Bow River South (BRS)
- ▶ Fosterton (F)
- ▶ Lloyd Blend (LLB)
- ▶ Lloyd Kerrobert (LLK)
- ▶ Seal Heavy (SH)
- ▶ Smiley-Coleville (SC)
- ▶ Wabasca Heavy (WH)
- ▶ Western Canadian Blend (WCB)

Heavy Low Resid

Density (kg/m³): 937 - 938
Gravity (°API): 19 - 20

- ▶ Suncor Synthetic H (OSH)

Heavy Sour - Unconventional

Density (kg/m³): 920 - 929
Gravity (°API): 20 - 22

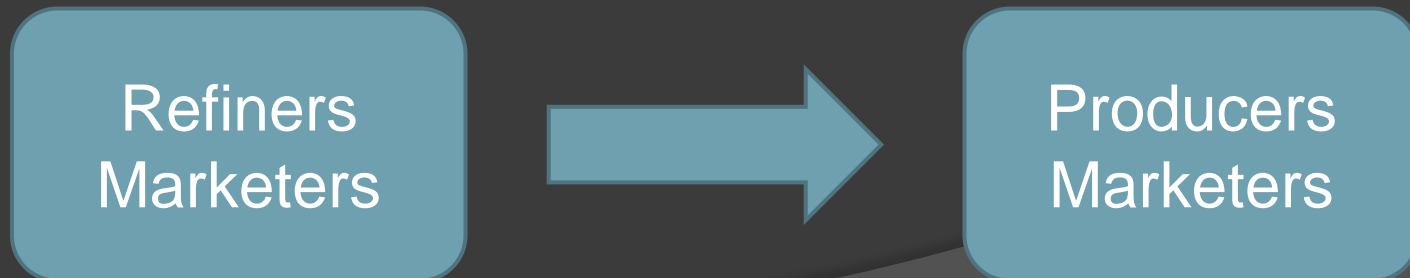
- ▶ Access Western Blend (AWB)
- ▶ Borealis Heavy Blend (BHB)
- ▶ Christina Dilbit Blend (CDB)
- ▶ Cold Lake (CL)
- ▶ Kearl Lake (KDB)
- ▶ Statoil Cheecham Blend (SCB)
- ▶ Western Canadian Select (WCS)

What's Changed

- ◎ Recent changes include
 - The addition of DHA for select streams
 - Merged simulated distillation
 - New crude streams
 - Shorter time to public posting
- ◎ Planned changes include
 - Additional new crude streams
 - Assay management export
- ◎ Way out there
 - Data input box for users

Why does CrudeMonitor Exist?

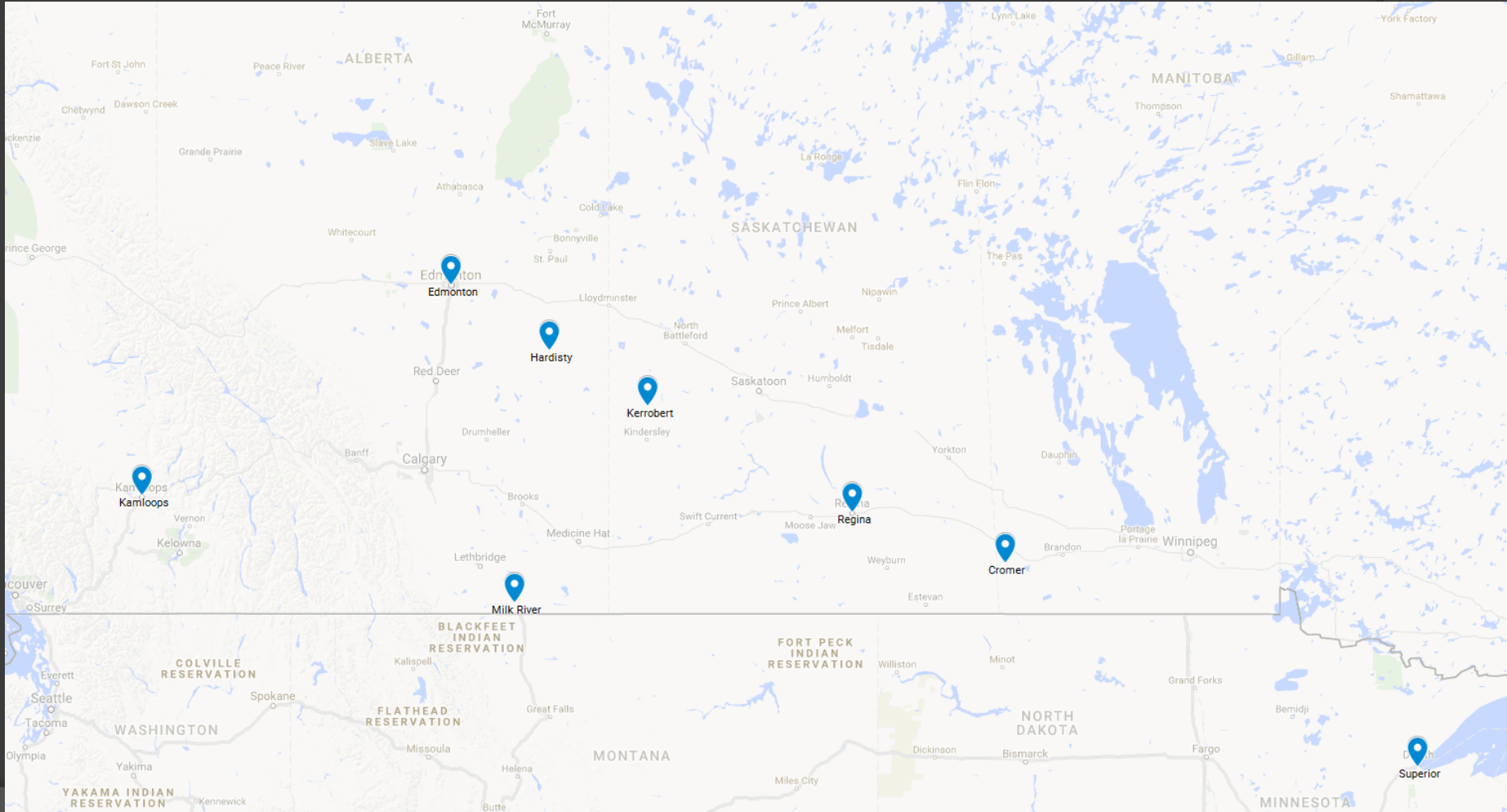
- Originally to chronicle disparities created by blending
- Protect producers' netbacks from specific situational analysis
- Taking on new roles in environmental, research, and engineering



Who is Involved?

- Maintained by Crude Quality Inc.
- Oversight Committee comprised of any industry members wishing to provide input
- Industry Technical Committee who manage funding
- Lab analysis performed by Maxxam Analytics
- Pipeline support and cooperation

Where it Happens?



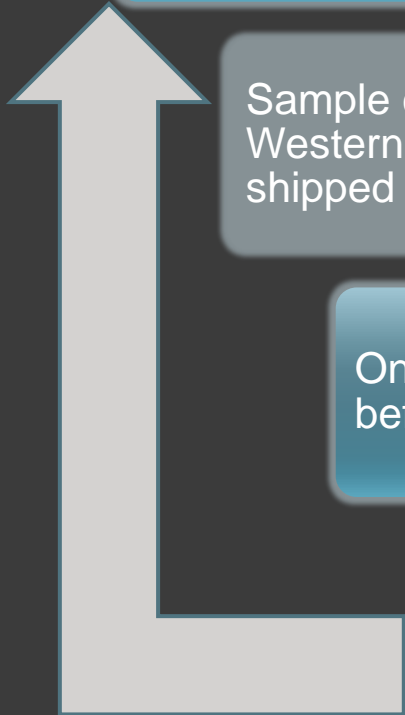
How CrudeMonitor Works?

Plan and review test schedule for following year with Oversight Committee. Approve budget with ITC.

Sample cans distributed to numerous locations across Western Canada and Superior WI. Samples then shipped back to Edmonton for analysis at Maxxam.

Once Testing is complete, the data is reviewed by CQI before being posted to the Internet.

Industry members provide feedback on potential changes and additions.



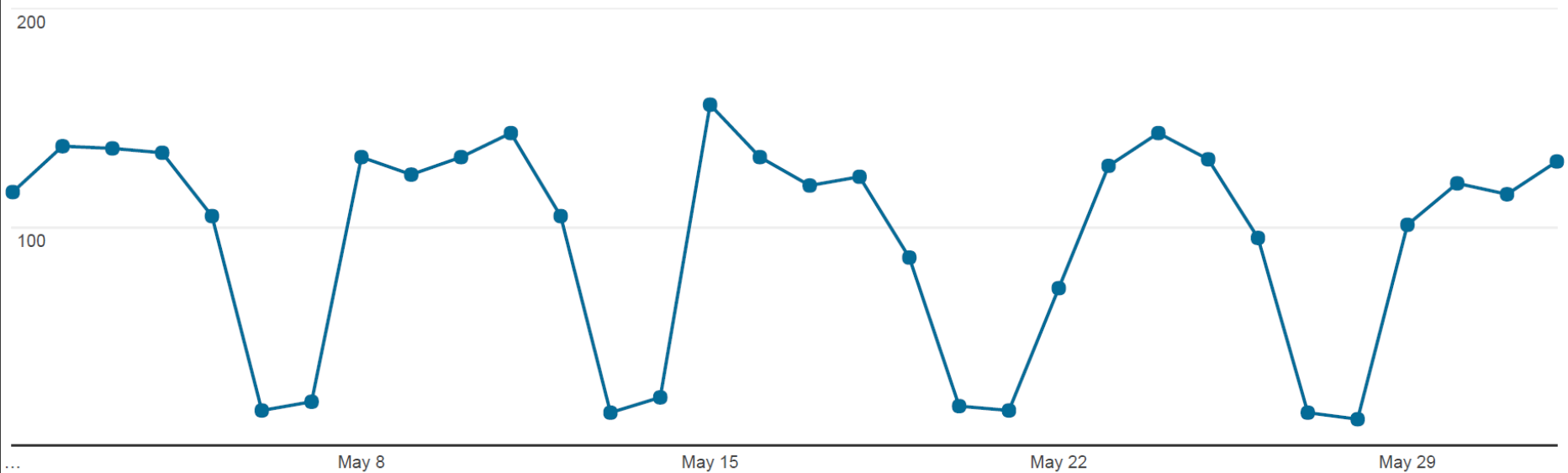
Website Analytics

1 Day Active Users

7 Day Active Users

14 Day Active Users

30 Day Active Users



1 Day Active Users

130

7 Day Active Users

500

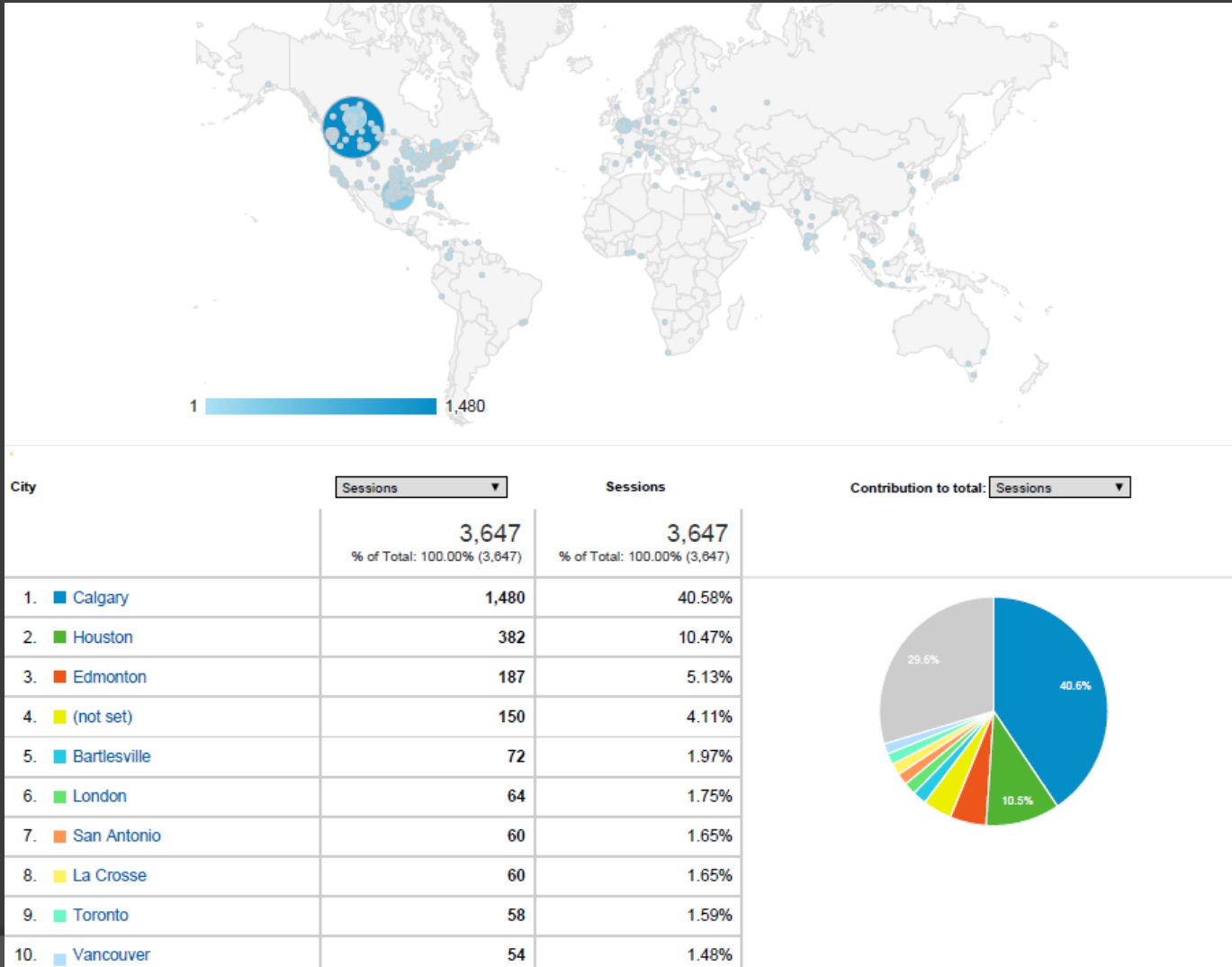
14 Day Active Users

952

30 Day Active Users

1,983

Website Analytics



Special Services

- Custom export reports
- New crudes

Give Us Feedback

- Website errors
- Let us know what you would like available on CrudeMonitor

Questions?

Crude Monitor

BRINGING THE CRUDE OIL INDUSTRY TOGETHER WITH DATA.

Crude Quality Inc.

SPECIALIZING IN CRUDE OIL QUALITY ISSUES.