



9075 West Heather Avenue Milwaukee, WI 53224 • 888-770-6896 x.200 • Fax 888-772-5243 •

Hemp Haven Farms	Project Manager:	Jeff Sayers	Work Order:	1904273
1506 CTY RD BB	Project Name:	Hemp Haven Farms Ethanol Crude	Received:	08/16/19 10:40
Deerfield, WI 53531	Project Number:	ETH12 Kg81419	Reported:	08/29/19 06:58

Lab Number: 1904273-01      Sample Name: ETH12Kg81419      Matrix: Solid      Collection Date/Time: 08/16/19 00:00

	Result	Units	LOD	Dilution Factor	Qualifiers	Date Analyzed	Analyst
<b>GC-MS</b>							
3-Carene	ND	%	0.001	1		08/23/19	885
alpha-Bisabolol	0.07	%	0.001	1		08/23/19	885
alpha-Cedrene	ND	%	0.001	1		08/23/19	885
alpha-Farnesene	ND	%	0.001	1		08/23/19	885
alpha-Humulene	0.17	%	0.001	1		08/23/19	885
alpha-Phellandrene	ND	%	0.001	1		08/23/19	885
alpha-Pinene	ND	%	0.001	1		08/23/19	885
alpha-Terpinene	ND	%	0.001	1		08/23/19	885
beta-Caryophyllene	0.54	%	0.001	1		08/23/19	885
beta-Farnesene	ND	%	0.001	1		08/23/19	885
beta-Myrcene	0.32	%	0.001	1		08/23/19	885
beta-Pinene	ND	%	0.001	1		08/23/19	885
Camphene	ND	%	0.001	1		08/23/19	885
Camphor	ND	%	0.001	1		08/23/19	885
Caryophyllene Oxide	0.07	%	0.001	1		08/23/19	885
Cedrol	ND	%	0.001	1		08/23/19	885
cis-Nerolidol	ND	%	0.001	1		08/23/19	885
Citronellol	ND	%	0.001	1		08/23/19	885
delta-3-Carene	ND	%	0.001	1		08/23/19	885
delta-Limonene	0.06	%	0.001	1		08/23/19	885
endo-Borneol	ND	%	0.001	1		08/23/19	885
Eucalyptol	ND	%	0.001	1		08/23/19	885
Fenchol	ND	%	0.001	1		08/23/19	885
Fenchone	ND	%	0.001	1		08/23/19	885
Geraniol	ND	%	0.001	1		08/23/19	885
Geranyl Acetate	ND	%	0.001	1		08/23/19	885
Guaiol	0.09	%	0.001	1		08/23/19	885
Isoborneol	ND	%	0.001	1		08/23/19	885
Isopulegol	0.04	%	0.001	1		08/23/19	885
Linalool	0.05	%	0.001	1		08/23/19	885
Menthol	ND	%	0.001	1		08/23/19	885
Nerol	ND	%	0.001	1		08/23/19	885
Ocymene	0.05	%	0.001	1		08/23/19	885
p-Cymene	ND	%	0.001	1		08/23/19	885
Phytol 1	ND	%	0.001	1		08/23/19	885



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Deerfield, WI 53531

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Project Name: Hemp Haven Farms Ethanol Crude  
Project Number: ETH12 Kg81419

Work Order: 1904273  
Received: 08/16/19 10:40  
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Matrix: Solid

Collection Date/Time: 08/16/19 00:00

	Result	Units	LOD	Dilution Factor	Qualifiers	Date Analyzed	Analyst
<b><u>GC-MS Continued</u></b>							
Phytol 2	ND	%	0.001	1		08/23/19	885
Pulegone	ND	%	0.001	1		08/23/19	885
Sabinene	ND	%	0.001	1		08/23/19	885
Sabinene Hydrate	ND	%	0.001	1		08/23/19	885
Terpinolene	ND	%	0.001	1		08/23/19	885
trans-Nerolidol	0.06	%	0.001	1		08/23/19	885
γ-Terpinene	ND	%	0.001	1		08/23/19	885
Total Terpenes	1.53	%	0.001	1		08/23/19	885
<b><u>Residual Solvents</u></b>							
1,2-Dichloroethane	ND	µg/g	0.00620	1		08/23/19	885
Acetone	ND	µg/g	0.0700	1		08/23/19	885
Acetonitrile	ND	µg/g	0.0390	1		08/23/19	885
Benzene	ND	µg/g	0.00430	1		08/23/19	885
Butane	ND	µg/g	0.121	1		08/23/19	885
Chloroform	ND	µg/g	0.00460	1		08/23/19	885
Ethanol	19100	µg/g	0.300	1		08/23/19	885
Ethyl acetate	511	µg/g	0.134	1		08/23/19	885
Ethyl ether	ND	µg/g	0.135	1		08/23/19	885
Ethylene oxide	ND	µg/g	0.0230	1		08/23/19	885
Heptane	ND	µg/g	0.430	1		08/23/19	885
Hexane	ND	µg/g	0.0930	1		08/23/19	885
Isopropanol	ND	µg/g	0.410	1		08/23/19	885
Methanol	ND	µg/g	0.0630	1		08/23/19	885
Methylene chloride	ND	µg/g	0.00270	1		08/23/19	885
Pentane	ND	µg/g	0.430	1		08/23/19	885
Propane	ND	µg/g	0.0164	1		08/23/19	885
Toluene	ND	µg/g	0.260	1		08/23/19	885
Xylenes, total	ND	µg/g	0.104	1		08/23/19	885
Trichloroethylene	ND	µg/g	0.00460	1		08/23/19	885



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**Qualifier Descriptions**

- B A high blank recovery is associated with this batch QC.
- J Estimated results between the LOD & LOQ.

**Notes and Definitions**

ND	Not Detected	ug/L	micrograms per liter = parts per billion (ppb)
DET	Detected	ug/kg	micrograms per kilogram = parts per billion (ppb)
LOD	Limit of Detection (Dilution Corrected)	mg/L	milligrams per liter = parts per million (ppm)
TNTC	Too Numerous to Count	mg/kg	milligrams per kilogram = parts per million (ppm)

Accuracy Expressed as percent recovery.

Precision Expressed as relative percent difference (RPD).

When the word "dry" follows the units on the result page, the sample results are dry weight corrected.

LODs and LOQs are dry weight corrected for all soils, except WI DNR GRO/PVOC and EPA 8260B.

State of Wisconsin soils for WI DNR GRO/PVOC, WI DNR DRO and EPA 8260B are reported to the LOQ.

**Certification Summary**

Federal Drug Administration, Registration of Drug Establishment: **3006442227**  
 United States Environmental Protection Agency: **WI01118**  
 Wisconsin Department of Agriculture, Trade & Consumer Protection: **105-465**  
 Wisconsin Department of Natural Resources: **267178780**