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Carbon Dioxide (CO_2) Analysis
Sequestration Characterization Program©

Customer Company
Street Address 1
City, State ZIP
Phone: nnn-nnn-nnnn, Cell: nnn-nnn-nnnn, (Fax: nnn-nnn-nnnn)
Attn.: Mr./Ms./Dr. John Smith and Mr./Ms./Dr. Derek Jeter
E-Mail:
Sample ID.: Vaporized Liquid CO_2 / Gaseous CO_2: "See Sample ID on Analysis Auth Form"
Sample ID.: Received in 2L True Blue MLB Polybag 1.2 + MiniCyl 1.0 No-Haz Final Product Kits

ALI Track No.:
Received On:
Report Date:
Invoice No.:

Sample Date:
Process Stage: Final

Test Description/Units:	Result	LOQ	Spec
CO_2 Identification (Positive/ Negative by USP [DT]):		5	report
Comments: Positive ID = Positive Detector Tube Response.			
CO_2 Purity (% v/v, [GC]):		5	report
Comments: Obtained by NCG + target list impurity subtraction method			
Water Vapor (H_2O, ppm v/v [FTIR]):		1	report
Comments: This test requires a separate / dedicated minicyl sample.			
Hydrogen (H_2, ppm v/v, [GC]):		1	report
Oxygen (O_2, ppm v/v, [GC]):		1	report
Comments: Result represents Total O_2 + Ar ppm v/v.			
Nitrogen (N_2, ppm v/v, [GC]):		1	report
Carbon Monoxide (CO, ppm v/v, [DT]):		2	report
Ammonia (NH_3, ppm v/v, [DT]):		0.5	report
Oxides of Nitrogen (NO_x, ppm v/v,[DT]):		0.5	report
Comments: *Speciation performed if NO_x is above 2.5 ppm v/v			
Nitric Oxide (NO, ppm v/v, [DT]):		0.5	report
Nitrogen Dioxide (NO_2, ppm v/v, [DT]):		0.5	report
Phosphine (PH_3, ppm v/v, [DT]):		0.25	report
Comments:			
Total Hydrocarbons (THC, ppm v/v as CH_4, [THA]):		0.1	report
Comments:			
Total Non-Methane Hydrocarbons (TNMHC, ppm v/v as CH_4, [GC]):		0.1	report
Methane (CH_4, ppm v/v, [GC]):		0.1	report
Acetaldehyde (AA, ppm v/v, [GC]):		0.05	report
Aromatic Hydrocarbon Content (ppb v/v as Benzene, [GC]):		2	report
Benzene (ppb v/v [GC/MS]):		2	report
Toluene (ppb v/v, [GC/MS]):		2	report
Ethyl Benzene (ppb v/v, [GC/MS]):		2	report
m,p Xylenes (ppb v/v [GC/MS]):		2	report
o Xylene (ppb v/v [GC/MS]):		2	report
Comments:			
Total Sulfur Content* (TSC* ppm v/v as S, [GC]):		0.01	report
Comments: Obtained by summation of all speciated VSC target impurities less SO_2			
Sulfur Dioxide (SO_2, ppm v/v, [GC]):		0.05	report
Hydrogen Cyanide (HCN, ppm v/v, [GC]):		0.2	report
Vinyl Chloride (VCl, ppm v/v, [GC]):		0.1	report

Sample ID: Customer Company **ALI Track No.:**

Speciated Volatile Hydrocarbons (VHC, ppm v/v)	Result	LOQ	Spec.
Ethane:		0.1	report
Ethylene:		0.1	report
Propane:		0.1	report
Propylene:		0.1	report
Isobutane:		0.1	report
n-Butane:		0.1	report
Butene:		0.1	report
Isopentane:		0.1	report
n-Pentane:		0.1	report
Hexanes+:		0.1	report

Comments: Pk ID based upon t_r match vs target analyte std. CH_4 result on pg 1.

Speciated Volatile Sulfur Compounds (VSC, ppm v/v)			
Hydrogen Sulfide (H_2S):		0.01	report
Carbonyl Sulfide (COS):		0.01	report
Methyl Mercaptan:		0.01	report
Ethyl Mercaptan:		0.01	report
Dimethyl Sulfide:		0.01	report
Carbon Disulfide:		0.01	report
t-Butyl Mercaptan:		0.01	report
Isopropyl Mercaptan:		0.01	report
n-Propyl Mercaptan:		0.01	report
Methyl Ethyl Sulfide:		0.01	report
2-Butyl Mercaptan:		0.01	report
i-Butyl Mercaptan:		0.01	report
Diethyl Sulfide:		0.01	report
n-Butyl Mercaptan:		0.01	report
Dimethyl Disulfide:		0.01	report
Unknown VSC:		0.01	report

Comments: Peak ID based upon t_r match against target analyte standards. Note: SO_2 + TSC* results reported on pg. 1.

Speciated Volatile Oxygenates (VOX, ppm v/v)			
Dimethyl Ether:		0.1	report
Ethylene Oxide:		0.1	report
Diethyl Ether:		0.1	report
Propionaldehyde:		0.1	report
Acetone:		0.1	report
Methanol:		0.1	report
t-Butanol:		0.1	report
Ethanol:		0.1	report
Isopropanol:		0.1	report
Ethyl Acetate:		0.1	report
Methyl Ethyl Ketone:		0.1	report
2-Butanol:		0.1	report
n-Propanol:		0.1	report
Isobutanol:		0.1	report
n-Butanol:		0.1	report
Isoamyl Alcohol:		0.1	report
Isoamyl Acetate:		0.1	report
Unknown VOX:		0.1	report

Comments: Peak ID based upon t_r match against target analyte standards. AA & Ethylene Glycol results reported on pg. 1.

LOQ = Limit of Quantitation (lowest amount of analyte quantitatively determined with suitable precision and accuracy) **MDL** = method detection limit (lowest amount of analyte detected). **trace =** unquantified amount observed between MDL and LOQ. **nd =** indicates the impurity was not detected (below MDL). **--** = test not performed. **na** = not available. **LT** = less than the amount specified. **GT** = greater than the amount specified. **%** = percent. **ppm** = parts per million. **ppb** = parts per billion. **v/v** = volume analyte/volume sample. **w/w** = weight analyte/weight sample. **[result]** indicates the result was obtained by the method listed within brackets. **TSC*** = ISBT Total Sulfur Content exluding SO_2. **Unit Conversions:** 1ppm v/v = 1µL/L = 1000 ppb = 0.0001% v/v. **Date format:** MM/DD/YY.

Report Summary:

Customer requested a sequestration CO_2 analysis.

Please advise if additional testing is required.

Reviewed by / Date:

Laboratory Manager *mm/dd/yy*

Laboratory Manager

Attachments: none
Addendum: Signatures, Instrument & Notebook data on-file

Accreditation # 68099

ISO Statement

Statements of conformity (pass or fail) resulting from the test/analysis performed on the above sample will not take into account the reported measurement uncertainty unless otherwise specified. This is a shared risk decision rule in which the customer also has responsibility for determining acceptance of the results. The methods Airborne Labs International uses are developed by Airborne Labs International and are based on the current revisions of international, national, or industry standards unless otherwise specified. The acceptance criteria of the above item are based on ISBT specifications, NFPA, CGA, USP, or other industry specifications unless otherwise specified on the contract.