Energy Laboratories Inc

ANALYTICAL RUN Summary

17-Feb-22

Run ID FID-HEADSPACE_220131B

Run Start Date: 1/31/2022
Analyst: Jeff Whitmer
Ical:
Column ID: porapak Q
Comments: 2022 Calibration for methane, ethane, and ethene. thermometer used for temp:S94278.

Instrument ID	Description
1000_SGE_041819	1000 mL SGE Syringe _ Gas Tight

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
10711	HC-Methane-W-CCV	0.3	ml			lcs	8/9/2022
12173	HC-Methane-W-CCV	0.3	ml			CCV	11/23/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038722	CCV	HC-METHANE-	CCV		1/31/2022 10:32:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		103.519361		100	0	0	2	2	0	104%	85	115	0%	
Ethene	A	ppm		103.057616		100	0	0	2	2	0	103%	85	115	0%	
Methane	A	ppm		103.620197		100	0	0	2	2	0	104%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038723	LCS	HC-METHANE-	LCS		1/31/2022 10:37:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		99.5410871		100	0	0	2	2	0	100%	85	115	0%	
Ethene	A	ppm		99.2906216		100	0	0	2	2	0	99%	85	115	0%	
Methane	A	ppm		100.809349		100	0	0	2	2	0	101%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038724	MBLK	HC-METHANE-	MBLK		1/31/2022 11:15:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

1

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038724	MBLK	HC-METHANE-	MBLK		1/31/2022 11:15:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		0			0	0	2	2	0	0%	0	0	0%	
Ethene	A	ppm		0			0	0	2	2	0	0%	0	0	0%	
Methane	A	ppm		0			0	0	2	2	0	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038725	CAL1	HC-METHANE-	CAL1		1/31/2022 11:22:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		2.73020074		2.5	0	0	2	2	0	109%	50	150	0%	
Ethene	A	ppm		2.71682887		2.5	0	0	2	2	0	109%	50	150	0%	
Methane	A	ppm		2.85177946		2.5	0	0	2	2	0	114%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038726	CAL2	HC-METHANE-	CAL2		1/31/2022 11:28:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		5.21991748		5	0	0	2	2	0	104%	85	115	0%	
Ethene	A	ppm		5.31883543		5	0	0	2	2	0	106%	85	115	0%	
Methane	A	ppm		4.91242836		5	0	0	2	2	0	98%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038727	CAL3	HC-METHANE-	CAL3		1/31/2022 11:34:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		10.3282735		10	0	0	2	2	0	103%	85	115	0%	
Ethene	A	ppm		10.1476990		10	0	0	2	2	0	101%	85	115	0%	
Methane	A	ppm		10.5936028		10	0	0	2	2	0	106%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038728	CAL4	HC-METHANE-	CAL4		1/31/2022 11:40:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038728	CAL4	HC-METHANE- CAL4			1/31/2022 11:40:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		51.5359147		50	0	0	2	2	0	103%	85	115	0%	
Ethene	A	ppm		51.3647987		50	0	0	2	2	0	103%	85	115	0%	
Methane	A	ppm		52.2491534		50	0	0	2	2	0	104%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038729	CAL5	HC-METHANE- CAL5			1/31/2022 11:45:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		93.9925939		100	0	0	2	2	0	94%	85	115	0%	
Ethene	A	ppm		93.8651881		100	0	0	2	2	0	94%	85	115	0%	
Methane	A	ppm		94.7521155		100	0	0	2	2	0	95%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038730	CAL6	HC-METHANE- CAL6			1/31/2022 11:51:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		430.232311		500	0	0	2	2	0	86%	85	115	0%	
Ethene	A	ppm		434.391804		500	0	0	2	2	0	87%	85	115	0%	
Methane	A	ppm		451.873058		500	0	0	2	2	0	90%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038731	CAL7	HC-METHANE- CAL7			1/31/2022 12:02:	1	R374783		0	0	

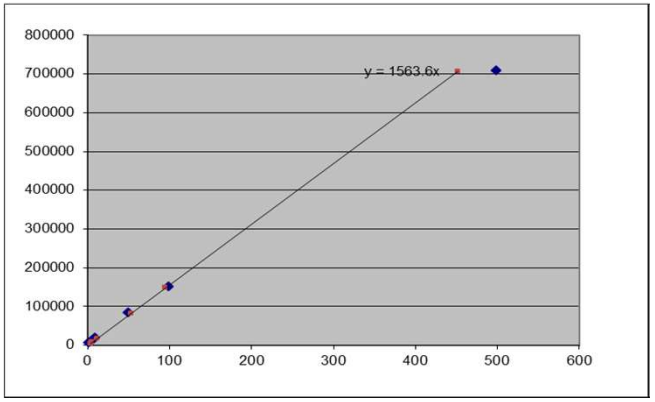
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	ppm		921.191920		1000	0	0	2	2	0	92%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15038732	CCV	HC-METHANE- CCV			1/31/2022 12:08:	1	R374783		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Ethane	A	ppm		101.850441		100	0	0	2	2	0	102%	85	115	0%	
Ethene	A	ppm		102.540441		100	0	0	2	2	0	103%	85	115	0%	
Methane	A	ppm		103.796714		100	0	0	2	2	0	104%	85	115	0%	

Inst ID FID-HeadSpace

Blank,cts	STD ID					
0	#12173	1000000				
Decimal Amnt, Injtd/ 300uL	Equivalent	Sample Conc ppm	Area Counts		Response Factor	Date/Time	**Run Id**
0.0000025	**2.5**	**4459**		**1783.6**	1/31/2022 11:22	19265
0.000005	**5**	**7681**		**1536.2**	1/31/2022 11:28	19266
0.00001	**10**	**16564**		**1656.4**	1/31/2022 11:34	19267
0.00005	**50**	**81696**		**1633.92**	1/31/2022 11:40	19268
0.0001	**100**	**148153**		**1481.53**	1/31/2022 11:45	19269
0.0005	**500**	**706542**		**1413.084**	1/31/2022 11:51	19270
0.001	**1000**	**1440362**		**1440.362**	1/31/2022 12:02	19271
			StdDev	**133.7196**		
			Avg RF	**1563.585**		
			%RSD	**8.552118**		



Methane **MW=** **16.04**

Calculated Recoveries

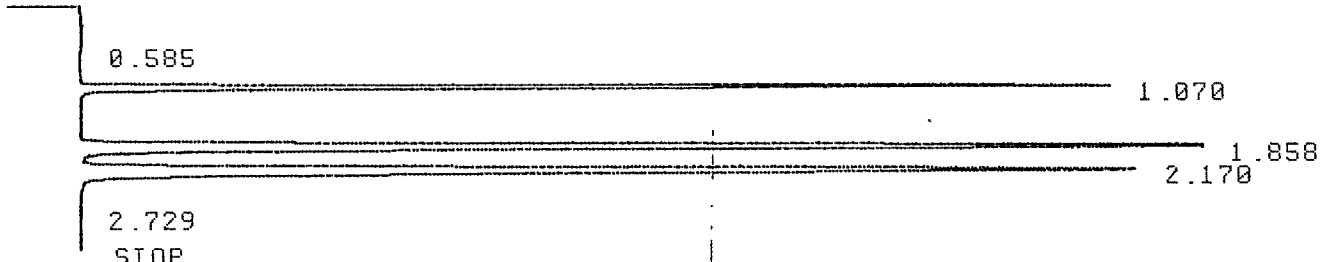
[PPM]	Area Cnts	PPM	% recovery
2.5	4459	2.851779464	114.07%
5	7681	4.912428361	98.25%
10	16564	10.59360283	105.94%
50	81696	52.24915341	104.50%
100	148153	94.75211547	94.75%
500	706542	451.873058	90.37%
1000	1440362	921.1919201	92.12%

Sample	Area Count	Dilution	Temp (˚C)	Concentration (ppm)	Date/Time	Analyst	Sample	Test Code	Analyte
CCV	162019	1	20	103.6201967	1/31/2022 10:32	jdw	CCV	HC-METHANE-CCV	Methane
CCV	321986	1	20	103.5193612	1/31/2022 10:32	jdw	CCV	HC-METHANE-CCV	Ethane
CCV	325807	1	20	103.057616	1/31/2022 10:32	jdw	CCV	HC-METHANE-CCV	Ethene
LCS	157624	1	20	100.8093488	1/31/2022 10:37	jdw	LCS	HC-METHANE-CCV	Methane
LCS	309612	1	20	99.54108708	1/31/2022 10:37	jdw	LCS	HC-METHANE-CCV	Ethane
LCS	313898	1	20	99.29062161	1/31/2022 10:37	jdw	LCS	HC-METHANE-CCV	Ethene
MBLK	432	1	20	0.27628812	1/31/2022 11:15	jdw	MBLK	HC-METHANE-CCV	Methane
MBLK	0	1	20	0	1/31/2022 11:15	jdw	MBLK	HC-METHANE-CCV	Ethane
MBLK	0	1	20	0	1/31/2022 11:15	jdw	MBLK	HC-METHANE-CCV	Ethene
CAL1	4459	1	20	2.851779464	1/31/2022 11:22	jdw	CAL1	HC-METHANE-CCV	Methane
CAL1	8492	1	20	2.73020074	1/31/2022 11:22	jdw	CAL1	HC-METHANE-CCV	Ethane
CAL1	8589	1	20	2.716828871	1/31/2022 11:22	jdw	CAL1	HC-METHANE-CCV	Ethene
CAL2	7681	1	20	4.912428361	1/31/2022 11:28	jdw	CAL2	HC-METHANE-CCV	Methane
CAL2	16236	1	20	5.219917477	1/31/2022 11:28	jdw	CAL2	HC-METHANE-CCV	Ethane
CAL2	16815	1	20	5.318835425	1/31/2022 11:28	jdw	CAL2	HC-METHANE-CCV	Ethene
CAL3	16564	1	20	10.59360283	1/31/2022 11:34	jdw	CAL3	HC-METHANE-CCV	Methane
CAL3	32125	1	20	10.32827352	1/31/2022 11:34	jdw	CAL3	HC-METHANE-CCV	Ethane
CAL3	32081	1	20	10.14769904	1/31/2022 11:34	jdw	CAL3	HC-METHANE-CCV	Ethene
CAL4	81696	1	20	52.24915341	1/31/2022 11:40	jdw	CAL4	HC-METHANE-CCV	Methane
CAL4	160297	1	20	51.53591474	1/31/2022 11:40	jdw	CAL4	HC-METHANE-CCV	Ethane
CAL4	162385	1	20	51.36479873	1/31/2022 11:40	jdw	CAL4	HC-METHANE-CCV	Ethene
CAL5	148153	1	20	94.75211547	1/31/2022 11:45	jdw	CAL5	HC-METHANE-CCV	Methane
CAL5	292354	1	20	93.99259386	1/31/2022 11:45	jdw	CAL5	HC-METHANE-CCV	Ethane
CAL5	296746	1	20	93.86518806	1/31/2022 11:45	jdw	CAL5	HC-METHANE-CCV	Ethene
CAL6	706542	1	20	451.873058	1/31/2022 11:51	jdw	CAL6	HC-METHANE-CCV	Methane
CAL6	1338192	1	20	430.2323114	1/31/2022 11:51	jdw	CAL6	HC-METHANE-CCV	Ethane
CAL6	1373289	1	20	434.3918039	1/31/2022 11:51	jdw	CAL6	HC-METHANE-CCV	Ethene
CAL7	1440362	1	20	921.1919201	1/31/2022 12:02	jdw	CAL7	HC-METHANE-CCV	Methane
CCV	162295	1	20	103.7967141	1/31/2022 12:08	jdw	CCV	HC-METHANE-CCV	Methane
CCV	316795	1	20	101.8504408	1/31/2022 12:08	jdw	CCV	HC-METHANE-CCV	Ethane
CCV	324172	1	20	102.5404411	1/31/2022 12:08	jdw	CCV	HC-METHANE-CCV	Ethene

Calibration: Methane, Ethane, Ethene
JDW
1/31/2022

*ID 12173-500X-CCV

* RUN #19262   JAN 31, 2022 10:32:58
START



RUN# 19262   JAN 31, 2022 10:32:58

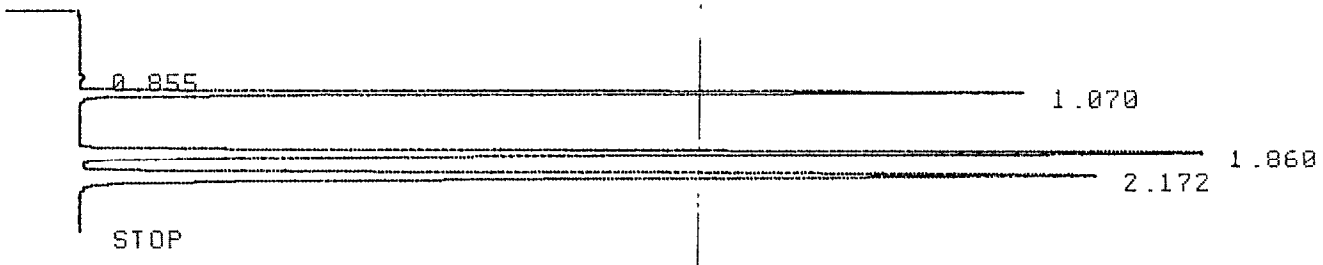
IDENTIFIER : 12173-500X-C
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.585	553	PP	.073	.06822
1.070	162019	PB	.046	19.98594
1.858	325807	VV	.076	40.19010
2.170	321986	VV	.089	39.71875
2.729	300	PV	.045	.03701

TOTAL AREA= 810665
MUL FACTOR=1.0000E+00

*ID 10711-LCS

* RUN #19263   JAN 31, 2022 10:37:36
START



RUN# 19263   JAN 31, 2022 10:37:36

IDENTIFIER : 10711-LCS
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.855	975	PV	.051	.12466
1.070	157624	PB	.049	20.15372
1.860	313898	BB	.076	40.13482
2.172	309612	BV	.089	39.58680

TOTAL AREA= 782109

*ID MB

* RUN #19264   JAN 31, 2022 11:15:04
START

RUN# 19264   JAN 31, 2022 11:15:04

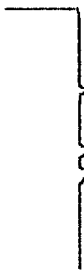
IDENTIFIER : MB
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.070	432	VV	.049	100.00000

TOTAL AREA=   432
MUL FACTOR=1.0000E+00

*ID CAL1-2.5PPM

* RUN #19265   JAN 31, 2022 11:22:01
START



RUN# 19265   JAN 31, 2022 11:22:01

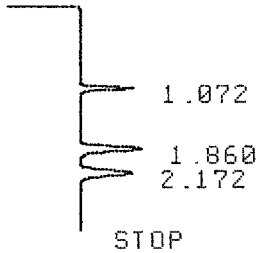
IDENTIFIER : CAL1-2.5PPM
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.075	4891	VV	.048	22.26014
1.860	8589	VP	.079	39.09067
2.172	8492	VP	.091	38.64918

TOTAL AREA= 21972
MUL FACTOR=1.0000E+00

*ID CAL2-5PPM

* RUN #19266   JAN 31, 2022 11:28:46
START



RUN# 19266   JAN 31, 2022 11:28:46

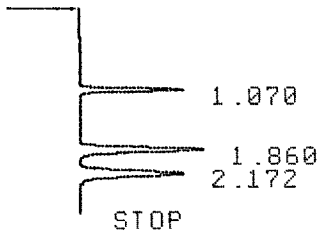
IDENTIFIER : CAL2-5PPM
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.072	8113	BP	.045	19.70897
1.860	16815	PV	.078	40.84880
2.172	16236	VP	.089	39.44222

TOTAL AREA= 41164
MUL FACTOR=1.0000E+00

*ID CAL3-10PPM

* RUN #19267   JAN 31, 2022 11:34:40
START



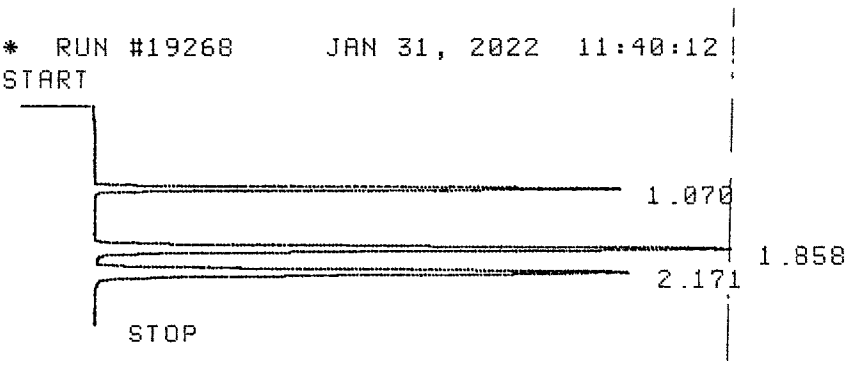
RUN# 19267   JAN 31, 2022 11:34:40

IDENTIFIER : CAL3-10PPM
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.070	16996	PP	.047	20.93052
1.860	32081	PV	.075	39.50765
2.172	32125	VP	.089	39.56184

TOTAL AREA= 81202
MUL FACTOR=1.0000E+00

*ID CAL4-50PPM



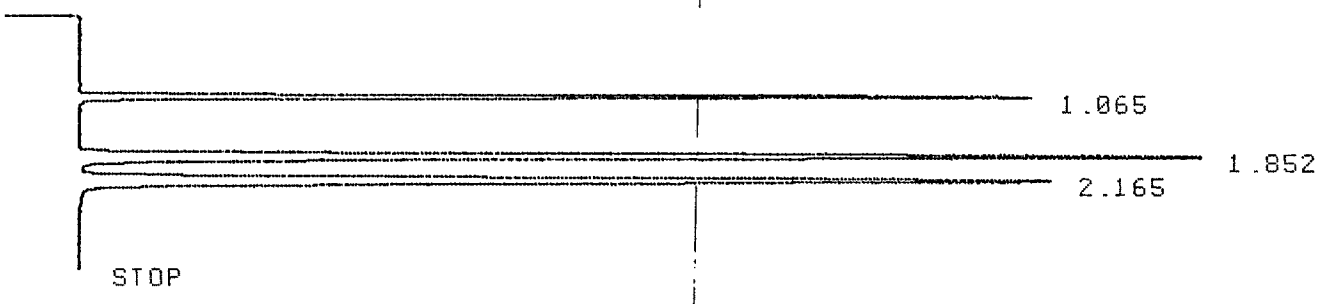
RUN# 19268 JAN 31, 2022 11:40:12

IDENTIFIER : CAL4-50PPM
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.070	82128	PB	.045	20.28803
1.858	162385	PB	.075	40.11387
2.171	160297	BB	.088	39.59808

TOTAL AREA= 404810
MUL FACTOR=1.0000E+00

*ID CAL5-100PPM



RUN# 19269 JAN 31, 2022 11:45:49

IDENTIFIER : CAL5-100PPM
AREA%

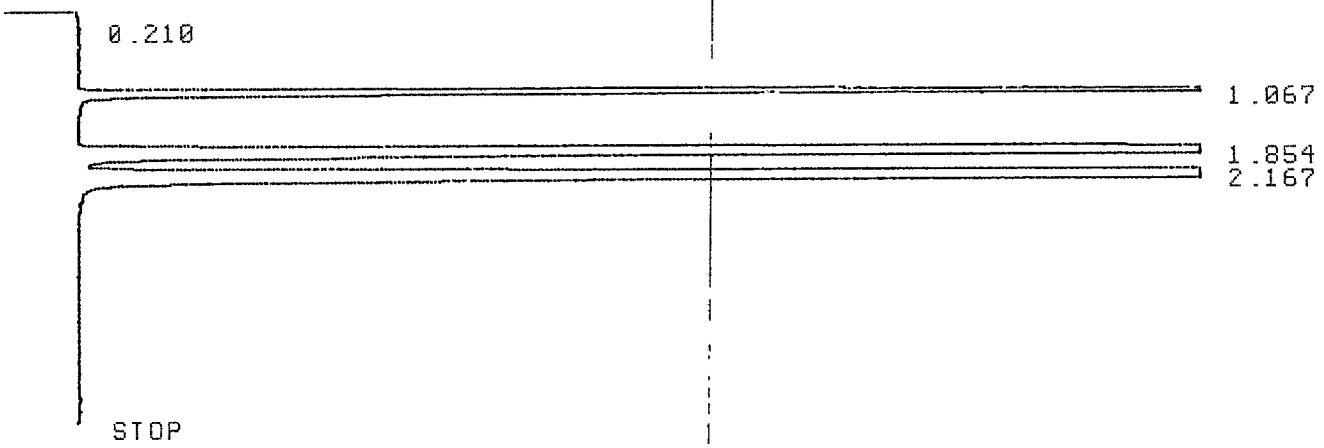
RT	AREA	TYPE	WIDTH	AREA%
1.065	148585	PB	.046	20.14206
1.852	296746	VV	.075	40.22666
2.165	292354	VP	.088	39.63126

TOTAL AREA= 737685
MUL FACTOR=1.0000E+00

~~*ID CAL5-500PPM~~ JOW 1/31/2022

*ID CAL6-500PPM

* RUN #19270   JAN 31, 2022 11:51:57
START



RUN# 19270   JAN 31, 2022 11:51:57

IDENTIFIER : CAL6-500PPM
AREA%

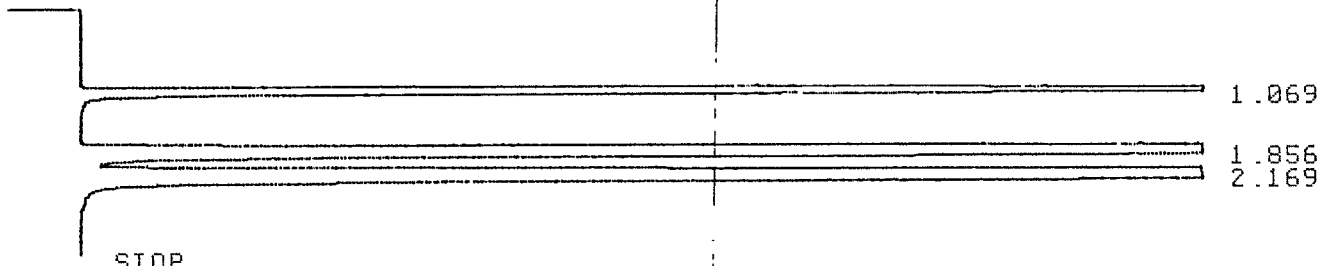
RT	AREA	TYPE	WIDTH	AREA%
1.067	706974	BB	.047	20.68110
1.854	1373289	PB	.078	40.17278
2.167	1338192	BB	.091	39.14610

TOTAL AREA=3418454
MUL FACTOR=1.0000E+00

*

*ID CAL7-1000PPM

* RUN #19271   JAN 31, 2022 12:02:20
START



RUN# 19271   JAN 31, 2022 12:02:20

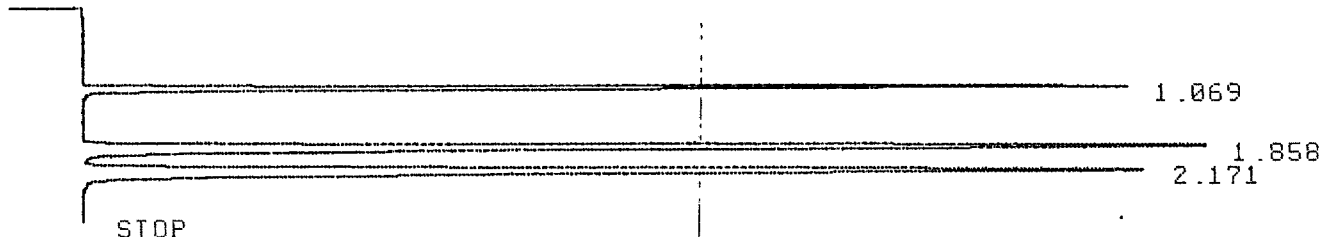
IDENTIFIER : CAL7-1000PPM
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.069	1440794	PB	.048	22.10318
1.856	2645432	PB	.082	40.58349
2.169	2432269	BB	.097	37.31334

TOTAL AREA=6518493
MUL FACTOR=1.0000E+00

*ID 12173-500X-CCV

* RUN #19272   JAN 31, 2022 12:08:57
START



RUN# 19272   JAN 31, 2022 12:08:57

IDENTIFIER : 12173-500X-C
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.069	162295	PB	.045	20.20449
1.858	324172	PB	.075	40.35684
2.171	316795	BB	.088	39.43858

TOTAL AREA= 803262
MUL FACTOR=1.0000E+00

Energy Laboratories Inc

ANALYTICAL RUN Summary

13-Mar-22

Run ID FID-HEADSPACE_220307A

Run Start Date: 3/7/2022
Analyst: Jeff Whitmer
Ical:
Column ID: porapak Q
Comments: See Preservation Comment column for sample pH; thermometer used for temp:S94278.

Instrument ID	Description
1000_SGE_041819	1000 mL SGE Syringe _ Gas Tight

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
10711	HC-Methane-W-CCV	0.3	ml			lcs	8/9/2022
12173	HC-Methane-W-CCV	0.3	ml			CCV	11/23/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073434	CCV	HC-METHANE-	CCV		3/7/2022 9:17:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	ppm		93.4877136		100	0	0	2	2	0	93%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073435	LCS	HC-METHANE-	LCS		3/7/2022 9:29:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	ppm		99.9369946		100	0	0	2	2	0	100%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073436	LCSD	HC-METHANE-	LCSD		3/7/2022 9:29:00	1	R375734		0	2E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	ppm		96.7123541		100	0	99.936995	2	2	0	97%	85	115	3%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073437	MBLK	HC-METHANE-	MBLK		3/7/2022 11:00:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.001	0	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073438	B22030244-001	HC-METHANE-	SAMP		3/7/2022 11:05:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073439	B22030244-006	HC-METHANE-	SAMP		3/7/2022 11:11:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073440	B22030244-007	HC-METHANE-	SAMP		3/7/2022 11:15:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073441	B22030244-011	HC-METHANE-	SAMP		3/7/2022 11:19:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073442	B22030244-012	HC-METHANE-	SAMP		3/7/2022 11:27:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073443	B22030244-016	HC-METHANE-	SAMP		3/7/2022 11:32:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073444	B22030244-017	HC-METHANE-	SAMP		3/7/2022 11:38:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073445	B22030244-021	HC-METHANE-	SAMP		3/7/2022 11:45:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073446	B22030244-022	HC-METHANE-	SAMP		3/7/2022 11:55:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073447	B22030244-026	HC-METHANE-	SAMP		3/7/2022 12:02:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073448	B22030244-027	HC-METHANE-	SAMP		3/7/2022 12:06:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073449	B22030244-031	HC-METHANE-	SAMP		3/7/2022 12:17:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073450	B22030244-032I	HC-METHANE-	SAMP		3/7/2022 12:23:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073451	B22030244-036	HC-METHANE-	SAMP		3/7/2022 12:28:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073452	B22030244-037	HC-METHANE-	SAMP		3/7/2022 12:37:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0.00072177			0	0	0.000704	0.002	0	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073453	B22030244-037	HC-METHANE-	DUP		3/7/2022 12:50:0	1	R375734		0	2E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0.0007038			0	0.0007218	0	0.002	0	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073454	B22030244-041	HC-METHANE-	SAMP		3/7/2022 12:59:0	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073455	B22030244-042	HC-METHANE-	SAMP		3/7/2022 1:05:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073456	B22030244-046	HC-METHANE-	SAMP		3/7/2022 1:12:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073457	B22030244-047	HC-METHANE-	SAMP		3/7/2022 1:18:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073458	B22030244-051	HC-METHANE-	SAMP		3/7/2022 1:29:00	1	R375734		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	mg/L		0			0	0	0.000704	0.002	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
15073459	CCV	HC-METHANE-	CCV		3/7/2022 1:34:00	1	R375734		0	0	

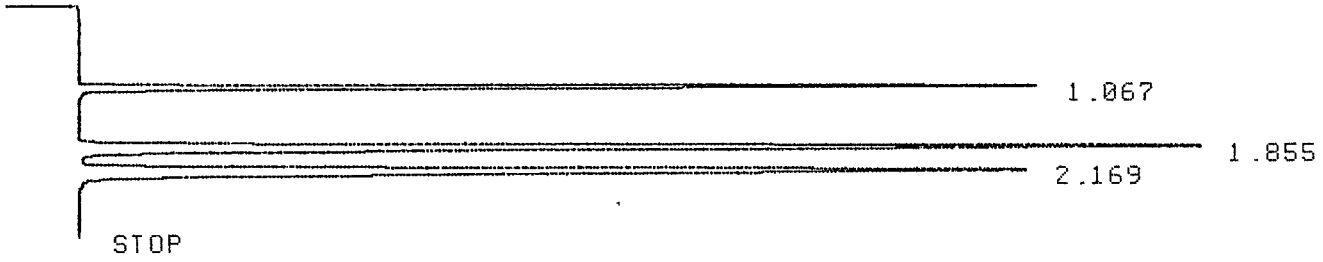
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Methane	A	ppm		96.9118955		100	0	0	2	2	0	97%	85	115	0%	

Sample ID	Area Count	Dilution Factor	Temperature (C)	Concentration	Date/Time Analyzed	Analyst	Sample Type	Test Code	Analyte	Headspace Volume	Liquid Volume
CCV	146176	1	20	93.48771358	3/7/2022 9:17	jdw	CCV	HC-METHANE-CCV	Methane		
LCS	156260	1	20	99.93699461	3/7/2022 9:29	jdw	LCS	HC-METHANE-CCV	Methane		
LCSD	151218	1	20	96.7123541	3/7/2022 9:29	jdw	LCSD	HC-METHANE-CCV	Methane		
MBLK	665	1	20	9.88E-05	3/7/2022 11:00	jdw	MBLK	HC-METHANE-W	Methane	10	32
B22030244-001H	1428	1	20	1.13E-04	3/7/2022 11:05	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-006A	1301	1	20	9.45E-05	3/7/2022 11:11	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-007H	736	1	20	1.05E-05	3/7/2022 11:15	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-011A	961	1	20	4.40E-05	3/7/2022 11:19	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-012H	1274	1	20	9.05E-05	3/7/2022 11:27	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-016A	941	1	20	4.10E-05	3/7/2022 11:32	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-017H	1863	1	20	1.78E-04	3/7/2022 11:38	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-021A	838	1	20	2.57E-05	3/7/2022 11:45	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-022H	1026	1	20	5.36E-05	3/7/2022 11:55	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-026A	897	1	20	3.45E-05	3/7/2022 12:02	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-027H	0	1	20	-9.88E-05	3/7/2022 12:06	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-031A	941	1	20	4.10E-05	3/7/2022 12:17	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-032I	906	1	20	3.58E-05	3/7/2022 12:23	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-036A	1068	1	20	5.99E-05	3/7/2022 12:28	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-037H	5524	1	20	0.000721773	3/7/2022 12:37	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-037HDUP	5403	1	20	0.000703799	3/7/2022 12:50	jdw	DUP	HC-METHANE-W	Methane	10	32
B22030244-041A	795	1	20	1.93E-05	3/7/2022 12:59	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-042H	1048	1	20	5.69E-05	3/7/2022 13:05	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-046A	549	1	20	-1.72E-05	3/7/2022 13:12	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-047H	1447	1	20	0.000116161	3/7/2022 13:18	jdw	SAMP	HC-METHANE-W	Methane	10	32
B22030244-051A	0	1	20	-9.88E-05	3/7/2022 13:29	jdw	SAMP	HC-METHANE-W	Methane	10	32
CCV	151530	1	20	96.91189552	3/7/2022 13:34	jdw	CCV	HC-METHANE-CCV	Methane		

JJW
3/7/2022

*ID 12173-500X-CCV

* RUN #19447   MAR 7, 2022 09:17:01
START



RUN# 19447   MAR 7, 2022 09:17:01

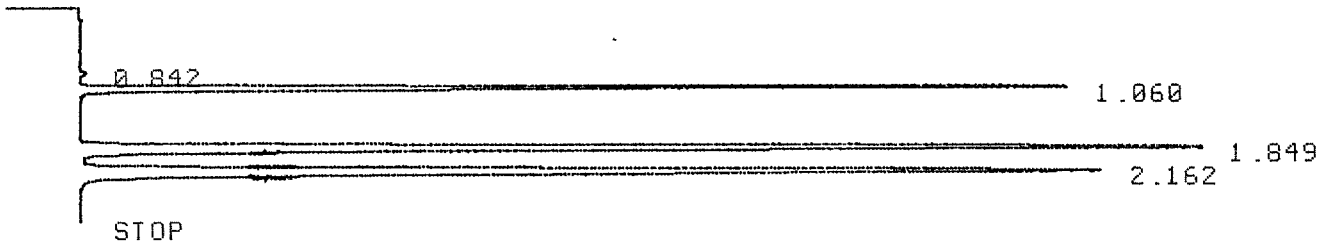
IDENTIFIER : 12173-500X-C
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.067	146176	BB	.044	20.33082
1.855	288663	PB	.075	40.14858
2.169	284148	BP	.088	39.52059

TOTAL AREA= 718987
MUL FACTOR=1.0000E+00

*ID 10711-LCS

* RUN #19448   MAR 7, 2022 09:29:43
START



RUN# 19448   MAR 7, 2022 09:29:43

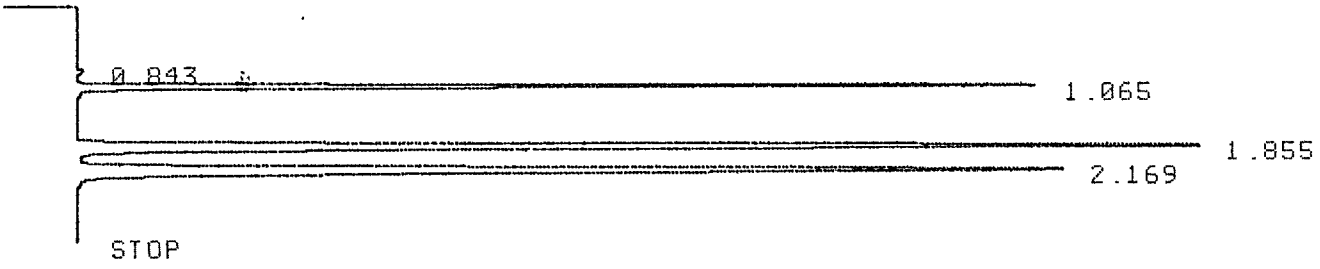
IDENTIFIER : 10711-LCS
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.842	1279	PP	.054	.16539
1.060	156260	PB	.046	20.20651
1.849	310627	BB	.074	40.16824
2.162	305149	PB	.087	39.45986

TOTAL AREA= 773315
MUL FACTOR=1.0000E+00

*ID 10711-LCSD

* RUN #19449   MAR 7, 2022 09:35:43
START



RUN# 19449   MAR 7, 2022 09:35:43

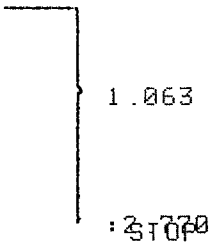
IDENTIFIER : 10711-LCSD
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.843	1377	VP	.055	.18405
1.065	151218	VB	.046	20.21218
1.855	300713	PB	.074	40.19405
2.169	294845	BP	.087	39.40971

TOTAL AREA= 748153
MUL FACTOR=1.0000E+00

*ID MB

* RUN #19450   MAR 7, 2022 11:00:35
START



RUN# 19450   MAR 7, 2022 11:00:35

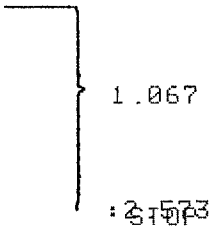
IDENTIFIER : MB
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.063	665	VP	.051	100.00000

TOTAL AREA=   665
MUL FACTOR=1.0000E+00

*ID 244-1H

* RUN #19451   MAR 7, 2022 11:05:10
START



RUN# 19451   MAR 7, 2022 11:05:10

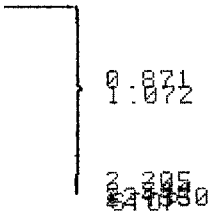
IDENTIFIER : 244-1H
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.067	1428	PU	.056	100.00000

TOTAL AREA= 1428
MUL FACTOR=1.0000E+00

*ID 244-6A

* RUN #19452   MAR 7, 2022 11:11:11
START



RUN# 19452   MAR 7, 2022 11:11:11

IDENTIFIER : 244-6A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.871	714	VP	.080	23.60330
1.072	1301	PP	.077	43.00826
2.205	621	PU	.067	20.52892
2.435	389	I VP	.060	12.85950

TOTAL AREA= 3025
MUL FACTOR=1.0000E+00

*ID 244-7H

```
*
*ID 244-7H

*  RUN #19453     MAR  7, 2022  11:15:48
START
      1.065
      STOP

RUN# 19453          MAR  7, 2022  11:15:48

IDENTIFIER : 244-7H
AREA%
      RT       AREA TYPE  WIDTH      AREA%
   1.065        736   VP    .056  100.00000

TOTAL AREA=     736
MUL FACTOR=1.0000E+00




*ID 244-11A

*  RUN #19454     MAR  7, 2022  11:19:54
START
      0.159
      1.065
      STOP

RUN# 19454          MAR  7, 2022  11:19:54

IDENTIFIER : 244-11A
AREA%
      RT       AREA TYPE  WIDTH      AREA%
    .159        339   PV    .040   26.07692
   1.065        961   PV    .055   73.92307

TOTAL AREA=    1300
MUL FACTOR=1.0000E+00
```

*
*ID 244-12H

* RUN #19455   MAR 7, 2022 11:27:20
START

RUN# 19455   MAR 7, 2022 11:27:20

IDENTIFIER : 244-12H
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.061	1274	BV	.060	100.00000

TOTAL AREA=   1274
MUL FACTOR=1.0000E+00

*ID 244-16A

* RUN #19456   MAR 7, 2022 11:32:36
START

RUN# 19456   MAR 7, 2022 11:32:36

IDENTIFIER : 244-16A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.429	357	I PB	.052	19.59385
.787	524	PV	.070	28.75960
1.067	941	VV	.052	51.64654

TOTAL AREA=   1822
MUL FACTOR=1.0000E+00

*

*ID 244-17H

* RUN #19457   MAR 7, 2022 11:38:50
START

RUN# 19457   MAR 7, 2022 11:38:50

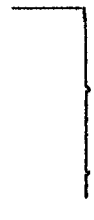
IDENTIFIER : 244-17H
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.065	1863	PP	.083	100.00000

TOTAL AREA=   1863
MUL FACTOR=1.0000E+00

*ID 244-21A

* RUN #19458   MAR 7, 2022 11:45:26
START



RUN# 19458   MAR 7, 2022 11:45:26

IDENTIFIER : 244-21A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.069	838	PV	.057	57.20139
2.129	627	PP	.080	42.79862

TOTAL AREA=   1465
MUL FACTOR=1.0000E+00

*
*ID 244-22H

* RUN #19459   MAR 7, 2022 11:55:14
START

RUN# 19459   MAR 7, 2022 11:55:14

IDENTIFIER : 244-22H
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.078	1026	VV	.063	100.00000

TOTAL AREA=   1026
MUL FACTOR=1.0000E+00

*ID 244-26A

* RUN #19460   MAR 7, 2022 12:02:13
START

RUN# 19460   MAR 7, 2022 12:02:13

IDENTIFIER : 244-26A
AREA%

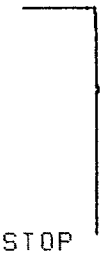
RT	AREA	TYPE	WIDTH	AREA%
1.066	897	BP	.053	100.00000

TOTAL AREA=   897
MUL FACTOR=1.0000E+00

*

*ID 244-27H

* RUN #19461   MAR 7, 2022 12:06:12
START



STOP

RUN# 19461   MAR 7, 2022 12:06:12

IDENTIFIER : 244-27H
NO RUN PEAKS STORED

*ID 244-31A

* RUN #19462   MAR 7, 2022 12:10:28
START

1.262

STOP

JDW 3/7/2022
Use Repeat run below

RUN# 19462   MAR 7, 2022 12:10:28

IDENTIFIER : 244-31A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.262	328	PU	.044	100.00000

TOTAL AREA=   328
MUL FACTOR=1.0000E+00

*

*ID 244-31A

* RUN #19463   MAR 7, 2022 12:17:17
START

RUN# 19463   MAR 7, 2022 12:17:17

IDENTIFIER : 244-31A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.068	941	PP	.054	100.00000

TOTAL AREA=   941
MUL FACTOR=1.0000E+00

*ID 244-32I

* RUN #19464   MAR 7, 2022 12:23:14
START

RUN# 19464   MAR 7, 2022 12:23:14

IDENTIFIER : 244-32I
AREA%

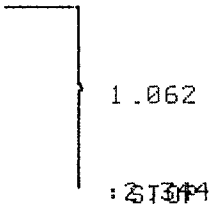
RT	AREA	TYPE	WIDTH	AREA%
1.063	906	PP	.055	100.00000

TOTAL AREA=   906
MUL FACTOR=1.0000E+00

*

*ID 244-36A

* RUN #19465   MAR 7, 2022 12:28:42
START



RUN# 19465   MAR 7, 2022 12:28:42

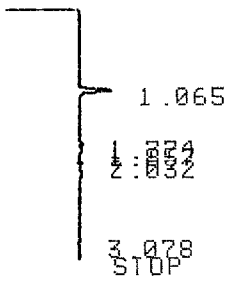
IDENTIFIER : 244-36A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.062	1068	PP	.069	100.00000

TOTAL AREA=   1068
MUL FACTOR=1.0000E+00

*ID 244-37H

* RUN #19466   MAR 7, 2022 12:37:35
START



RUN# 19466   MAR 7, 2022 12:37:35

IDENTIFIER : 244-37H
AREA%

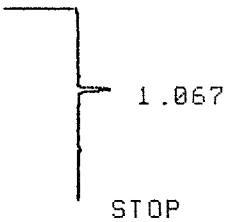
RT	AREA	TYPE	WIDTH	AREA%
1.065	5524	PP	.049	74.28726
1.774	431	BP	.028	5.79613
1.857	978	PU	.080	13.15223
2.032	503	PU	.025	6.76439

TOTAL AREA=   7436
MUL FACTOR=1.0000E+00

```
*  PLOT
```

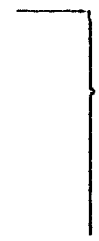
```
STOP

*
```

```
*ID 244-37H-DUP

*  RUN #19467     MAR  7, 2022  12:50:21
START
```




```
RUN# 19467          MAR  7, 2022  12:50:21

IDENTIFIER : 244-37H-DUP
AREA%
      RT       AREA TYPE  WIDTH      AREA%
   1.067       5403   PV    .047  100.00000

TOTAL AREA=   5403
MUL FACTOR=1.0000E+00

*
```

```
*ID 244-41A


*  RUN #19468     MAR  7, 2022  12:59:17
START
```

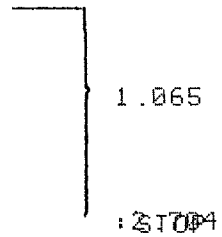



```
RUN# 19468  .        MAR  7, 2022  12:59:17

IDENTIFIER : 244-41A
AREA%
      RT       AREA TYPE  WIDTH      AREA%
   1.070        795   PV    .049  100.00000

TOTAL AREA=    795
MUL FACTOR=1.0000E+00




*ID 244-42H


*  RUN #19469     MAR  7, 2022  13:05:09
START
```


```
RUN# 19469           MAR  7, 2022  13:05:09

IDENTIFIER : 244-42H
AREA%
      RT       AREA TYPE  WIDTH      AREA%
   1.063       1048   PP    .053  100.00000

TOTAL AREA=   1048
MUL FACTOR=1.0000E+00
```

*
*ID 244-46A

* RUN #19470   MAR 7, 2022 13:12:47
START



RUN# 19470   MAR 7, 2022 13:12:47

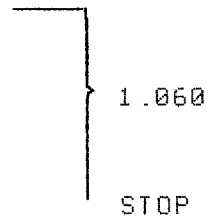
IDENTIFIER : 244-46A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.065	549	BV	.045	100.00000

TOTAL AREA=   549
MUL FACTOR=1.0000E+00

*ID 244-47H

* RUN #19471   MAR 7, 2022 13:18:07
START



RUN# 19471   MAR 7, 2022 13:18:07

IDENTIFIER : 244-47H
AREA%

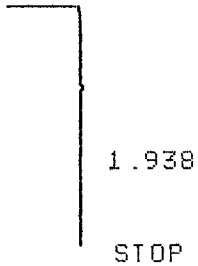
RT	AREA	TYPE	WIDTH	AREA%
1.060	1447	PP	.062	100.00000

TOTAL AREA=   1447
MUL FACTOR=1.0000E+00

*

*ID 244-51A

* RUN #19472   MAR 7, 2022 13:29:58
START



RUN# 19472   MAR 7, 2022 13:29:58

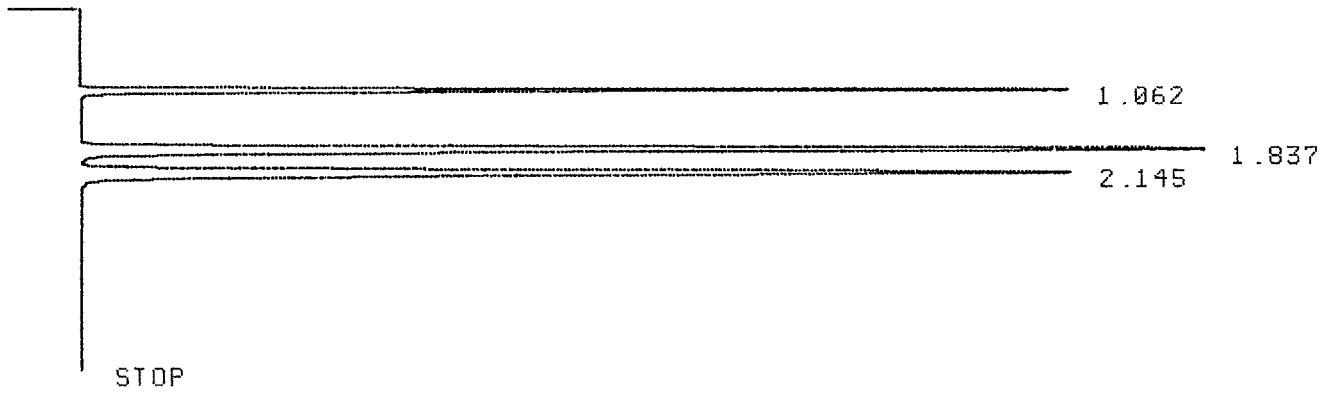
IDENTIFIER : 244-51A
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.938	404	PU	.060	100.00000

TOTAL AREA=   404
MUL FACTOR=1.0000E+00

*ID 12173-500X-CCV

* RUN #19473   MAR 7, 2022 13:34:46
START



RUN# 19473   MAR 7, 2022 13:34:46

IDENTIFIER : 12173-500X-C
AREA%

RT	AREA	TYPE	WIDTH	AREA%
1.062	151530	BB	.045	20.34758
1.837	298962	PB	.074	40.14486
2.145	294216	BP	.087	39.50757

Energy Laboratories Inc

Spike LOG

Standard ID:	12173		
Standard Name	HC-Methane-W-CCV	Type:	Primary
Date Prepared	11/22/2019	BY:	
Date Expires:	11/23/2023		
Department	GAS	Status:	New
Vendor:	Matheson		
Lot Number:	109-96-04454		
Balance ID:			

Comments: CCV Gas Standard for Methane, Ethene, Ethane: 50000ppm stock diluted from 100 - 500ppm with Helium for CCV. Diluted from 2.5ppm - 1000ppm with Helium for Calibration.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
3 Multi-Component Gas Standard in Ni	12173		mL	11/23

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

MATHESON TRI-GAS INC
1650 Enterprise Pkwy
Twinsburg, OH 44087
1-215-648-4000

CERTIFICATE OF ANALYSIS

Energy Laboratories Inc
1120 South 27th Street
Billings, MT 59101

Ref Po# 3008099

14 LITER DISPOSABLE

LOT NUMBER: 109-96-04454

COMPONENT	CONCENTRATION	
methane	50010	ppm
ethane	50030	ppm
ethylene	50030	ppm
nitrogen	Bal	

ITEM NUMBER: GMT2685284TC

CGA: 160

PSIG: 240

FILL DATE: 11/22/19

EXPIRATION DATE: 11/23/23

ID #: 12173
Opened:_____
3 Multi-Component Gas Standard in Nitrogen
Expires: 11/23/2023
Rec'd: 12/3/2019
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Above are the results of the analysis you requested, as reported by our laboratory. Results are in mole percent, unless otherwise indicated. Mixture accuracy is ± 2%. NIST traceable by weights or gaseous standards.

Judith M Zadravec

Judy Zadravec, Chemist

10/19/2018

DATE

Energy Laboratories Inc

Spike LOG

Standard ID:	10711		
Standard Name	HC-Methane-W-CCV	Type:	Primary
Date Prepared	8/8/2018	BY:	
Date Expires:	8/9/2022		
Department	GAS	Status:	New
Vendor:	Matheson		
Lot Number:	109-86-03507		
Balance ID:			

Comments: LCS Gas Standard for Methane, Ethene, Ethane: 100ppm per standard used undiluted for LCS

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
3 Multi-Component Gas Standard in Ni	10711		mL	8/9/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

Page: *1 of 1*

MATHESON TRI-GAS INC
1650 Enterprise Pkwy
Twinsburg, OH 44087
1-215-648-4000

CERTIFICATE OF ANALYSIS

Energy Laboratories Inc
1120 South 27th Street
Billings, MT 59101

Ref Po# 3005062

14 LITER DISPOSABLE

LOT NUMBER: 109-86-03507

COMPONENT	CONCENTRATION	
methane	100.0	ppm
ethane	100.0	ppm
ethylene	100.0	ppm
nitrogen	Bal	

ITEM NUMBER: GMT2677328TC

CGA: *160*

PSIG: 240

FILL DATE: 08/08/18

EXPIRATION DATE: 08/09/22

Above are the results of the analysis you requested, as reported by our laboratory. Results are in mole percent, unless otherwise indicated. Mixture accuracy is ± 2%. NIST traceable by weights or gaseous standards.

Judith M Zadravec

Judy Zadravec, Chemist

8/14/2018

DATE

ID #: 10711
Opened:
3 Multi-Component Gas Standard in Nitrogen
Expires: 8/9/2022
Rec'd: 8/27/2018
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107