



Manufacturer: Pacific Energy
Job #_G102598298

Model: KS LISA
Run_1 L1A

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Tech Ken Slater

Pre/Post Checks

Facility Conditions:

Air Velocity.....
Smoke Capture Check.....

Pre-Test	Post-Test
<u>0</u> fpm	<u>0</u> fpm
<u>✓</u>	<u>✓</u>

Wood Heater Conditions:

Date Wood Heater Stack Cleaned.....
Date Dilution Tunnel Cleaned.....
Induced Draft Check.....
Tunnel Velocity.....

<u>7-20-16</u>	
<u>7-20-16</u>	
<u>✓</u>	<u>✓</u>
<u>0.085</u>	<u>0.080</u>

Pitot Leak Check:

Side A.....
Side B.....

<u>✓</u>	<u>✓</u>
<u>✓</u>	<u>✓</u>

Temperature System:

Ambient (65°- 90°F).....

<u>76</u>	°F
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Proportional Checks:

CO Analyzer Drift Check.....
CO₂ Analyzer Check.....
O₂ Analyzer Check.....
Thermocouple check.....

<u>✓</u>
<u>✓</u>
<u>✓</u>
<u>✓</u>

Sampling Train ID Numbers:

Probe.....
Filter Front.....
Filter Back.....
Filter Thermocouple.....
Filter 5G-3 (<90°F).....

Train 1	Train 2	Train 3
<u>1</u>	<u>2</u>	<u>3</u>
<u>1</u>	<u>3</u>	<u>5</u>
<u>2</u>	<u>4</u>	<u>6</u>
<u>19</u>		

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Pre-Test Scale Audit

Scale Type	Audit Weight		Measured Weight	
Platform	25.00	lbs., Class F	25.00	lbs.
Wood	10.00	lbs., Class F	10.00	lbs.
Analytical	100.00	mg, Class S	100.00	mg.

LIMITS OF WEIGHT RANGES

ANALYTICAL SCALE: 50%-150% of dry filter weight, ± 0.1 mg

PLATFORM SCALE 20%-80% of ideal test load weight, ± 0.1 lbs. or 1%

WOOD SCALE 20%-80% of ideal test load weight, ± 0.1 lbs. or 1%

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SAMPLING EQUIPMENT CHECK OUT

Leakage Checks Tunnel Samplers

	SAMPLE 1		Sample 2		SAMPLE 3	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-test	Post-Test
Unplugged Flow Rate = .25cfm						
Vacuum (inches Hg.)	10"	10"	10"	10"	10"	10"
Final 1 minute DGM (ft ³)	0	0	0	0	193.264	198.892
Initial 1 minute DGM (ft ³)	0	0	0	0	193.264	198.892
Change (C) (ft ³)	-	-	-	-	0	0
Allowable leakage .04 x Sample rate or .02cfm	0.0100	0.0100	0.0100	0.0100		0.0100
Check OK	0	✓	0	✓	✓	✓

Leakage Checks Flue Gas Sampler

Plugged Probe	Pre Test	Post Test
Vacuum (inches Hg.)	10"	10"
Rotometer Reading (mm)	0	0
Flow Rate (CFM)	0	0
Allowable (.04 x Sample Rate)		
Check OK	✓	✓

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CONTINUOUS ANALYZERS

Pre-Test (Adjust and Record)

	ZERO		SPAN		CAL. (Record Only)	
CO ₂	<u>0</u>	<u>0</u>	<u>24.55</u>	<u>24.55</u>	<u>12.09</u>	<u>11.98</u>
CO	<u>0</u>	<u>0</u>	<u>9.20</u>	<u>9.195</u>	<u>3.94</u>	<u>4.00</u>
O ₂	<u>0</u>	<u>0</u>	<u>22.00</u>	<u>22.00</u>	<u>10.05</u>	<u>9.99</u>
	Actual	Should Be	Actual	Should Be	Actual	Should Be

Post Test (Record Only)

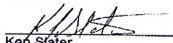
	Zero	Span	Cal.	Zero Drift	Span Drift	Cal. Drift	OK?	Not OK*
CO ₂	<u>0.03</u>	<u>24.47</u>	<u>11.96</u>	<u>.03</u>	<u>.08</u>	<u>.13</u>	<u>✓</u>	
CO	<u>-.0.04</u>	<u>9.14</u>	<u>3.87</u>	<u>.04</u>	<u>.06</u>	<u>.07</u>	<u>✓</u>	
O ₂	<u>0</u>	<u>21.94</u>	<u>16.00</u>	<u>0</u>	<u>.06</u>	<u>.05</u>	<u>✓</u>	

* Greater than ± 5% of the range used.



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TEST DATA LOG

RAW DRY GAS METER READINGS

	System 1	System 2	System 3
Final (ft ³)	86,530	86,537	198.875
Initial (ft ³)	0	0	192.244

AMBIENT CONDITIONS

	Start	End
Barometer. (inches Hg)	28.75	28.81
Temperature (°F)	68.5	81.4
Humidity (%)	53 %	46 %



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COMMENTS

7:55 AM PicTest STARTED
8:58 AM - TEST STARTED MAXIMUM Level (4)
9:58 AM - UNIT ADJUSTED TO Level (2)

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READING #	REAL TIME	ELAPSED TIME	DGM 1	ROTOMETER 1	DGM 2	ROTOMETER 2	DGM 3	ROTOMETER 3	DRAFT	MAX DGM PRESSURE
0	8:58	0	0	120	0	20	193.264			
1		10					194.2			
2		20					195.1			
3		30					196.1			
4		40					197.0			
5		50					197.9			
6		60					198.875			
7		70					—			
8		80					—			
9		90					—			
10		100					—			
11		110					—			
12		120					—			
13		130					—			
14		140					—			
15		150					—			
16		160					—			
17		170					—			
18		180					—			
19		190					—			
20		200					—			
21		210					—			
22		220					—			
23		230					—			
24		240					—			
25		250					—			
26		260					—			
27		270					—			
28		280					—			
29		290					—			
30		300					—			
31		310					—			
32		320					—			
33		330					—			
34		340					—			
35		350					—			
36		360	86.53	86.54						

Level
4

Level
2

Level
1



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Job # 6102598298

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DILUTION TUNNEL PARTICULATE SAMPLER DATA

FILTER TYPE: Gelman 47mm A/E

Pre-test Weight Record		SYSTEM 1			SYSTEM 2			SYSTEM 3			Temp °F	Humidity %
		Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number	Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number	Probe & Housing Number	Front Filter + gasket Number	Back Filter + gasket Number		
Date	Time											
7-10-10		91. 3715	1.8309	1.8634	91. 5748	1.8258	1.8436	93. 0483	1.8198	1.8457		
2-ET-N		91. 3714	1.8307	1.8633	91. 5747	1.8258	1.8455	93. 0482	1.8197	1.8457		
		Total:	3.694		Total:	3.6713		Total:	3.6654			

[illegible]

Dry Down Weight

[illegible]