



**Certificate of Analysis**  
Compliance Test

**Client Information:**

**Red Mesa Science and Refining**  
4443 E Commerce Dr  
St. George, Utah 84790

Batch # R240202MS89  
Batch Date: 2024-02-02  
Extracted From: Hemp

Test Reg State: Utah

Order # RED240329-010002  
Order Date: 2024-03-29  
Sample # AAFLO81

Sampling Date: 2024-04-01  
Lab Batch Date: 2024-04-01  
Completion Date: 2024-04-09

Initial Gross Weight: 20.303 g



**Potency Tested**

Product Image

**Potency 25 (LCUV)**  
Specimen Weight: 508.230 mg

**Tested**  
SOP13.001 (LCUV)

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBT	5000.000	2.00E-4	0.0015	671.0000	67.1000
CBC	50.000	1.80E-5	0.0015	31.9500	3.1950
CBD	50.000	5.40E-5	0.0015	12.0900	1.2090
CBL	50.000	3.50E-5	0.0015	8.3780	0.8378
CBN	50.000	1.40E-5	0.0015	0.8500	0.0850
THCB *	50.000	1.80E-4	0.00195	0.6460	0.0646
CBDV	50.000	6.50E-5	0.0015	0.4700	0.0470
THCV	50.000	7.00E-6	0.0015	0.4000	0.0400
CBCA	50.000	1.07E-4	0.0015	<LOQ	<LOQ
CBDA	50.000	1.00E-5	0.0015	<LOQ	<LOQ
CBDVA	50.000	1.40E-5	0.0015	<LOQ	<LOQ
CBG	50.000	2.48E-4	0.0015	<LOQ	<LOQ
CBGA	50.000	8.00E-5	0.0015	<LOQ	<LOQ
CBNA	50.000	9.50E-5	0.0015	<LOQ	<LOQ
Delta-8 THC	50.000	2.60E-5	0.0015	<LOQ	<LOQ
Delta-8 THC-O Acetate	50.000	2.70E-5	0.003	<LOQ	<LOQ
Delta-8 THCV	50.000	4.00E-5	0.0015	<LOQ	<LOQ
Delta-9 THC	50.000	1.30E-5	0.0015	<LOQ	<LOQ
Delta-9 THC-O Acetate	50.000	7.70E-5	0.003	<LOQ	<LOQ
Delta8-THCP *	50.000	3.75E-4	0.0015	<LOQ	<LOQ
Delta9-THCP *	50.000	1.17E-5	0.0012	<LOQ	<LOQ
Exo-THC	50.000	2.30E-4	0.0015	<LOQ	<LOQ
THCA-A	50.000	3.20E-5	0.0015	<LOQ	<LOQ
THCH *	50.000	3.50E-4	0.00195	<LOQ	<LOQ
THCVA	50.000	4.70E-5	0.0015	<LOQ	<LOQ
Total Active CBD	50.000			12.090	1.209
Total Active THC	50.000			<LOQ	<LOQ

**Potency Summary**

Total Active THC None Detected	Total Active CBD 1.209%
Total CBG None Detected	Total CBN 0.085%
Other Cannabinoids 4.12%	Total Cannabinoids 72.514%
Total CBT 67.1%	

Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions and Abbreviations used in this report: Total Active CBD = CBD + (CBD-A \* 0.877), \*Total CBDV = CBDV + (CBDVA \* 0.87), Total Active THC = THCA-A \* 0.877 + Delta 9 THC, Total THC = THCV + (THCVA \* 0.87), CBG Total = (CBGA \* 0.877) + CBG, CBN Total = (CBNA \* 0.877) + CBN, Total CBC = CBC + (CBCA \* 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Total THCP = Delta8-THCP + Delta9-THCP, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta6a10a-THC + Delta8-THC + Total CBN + CBT + CBE + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate + Total THCP. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor, (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram, (µg/g) = Microgram per Gram, (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = Water Activity, (mg/Kg) = Milligram per Kilogram. ACS uses simple acceptance criteria. Passed - Analyte/microbe is not detected or is at the level below the action limit per UT rule R68-37. Failed - Analyte/microbe is at the level that equal or above the action limit per UT rule R68-37 Sample not received via laboratory sampling.

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard. The tests and/or calibrations marked with an "\*" are not ISO/IEC 17025:2017 accredited test results.





**Certificate of Analysis**  
Compliance Test

**Client Information:**

**Red Mesa Science and Refining**  
4443 E Commerce Dr  
St. George, Utah 84790

Batch # R240202MS89  
Batch Date: 2024-02-02  
Extracted From: Hemp

Test Reg State: Utah

Production Facility: Red Mesa Science and Refining  
Production Date: 2024-02-02

Order # RED240313-010001  
Order Date: 2024-03-13  
Sample # AAFJ685

Sampling Date: 2024-03-14  
Lab Batch Date: 2024-03-14  
Completion Date: 2024-03-19

Initial Gross Weight: 20.303 g

**Filth and Foreign Material**

Specimen Weight: N/A Dilution Factor: 1,000

Analyte	Action Level (%)	Result (%)	Analyte	Action Level (%)	Passed SOP13,020 (Visual/Microscope)	
					Result (%)	
Covered Area	10	0.000	Weight %	1	0.000	
Feces	0.5	0.000				

**Microbiology (Petrifilm)**

Specimen Weight: 994.100 mg

Dilution Factor: 1,000

Analyte	LOQ (cfu/g)	Action Level (cfu/g)	Result (cfu/g)	Analyte	LOQ (cfu/g)	Passed SOP13,003 (Petrifilm)	
						Action Level (cfu/g)	Result (cfu/g)
Aerobic Bacteria	10	10000	<10	Total Enterobacteriaceae	10	1000	<10
E. Coli / Coliform	10	100	<10	Yeast/Mold	10	1000	<10

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions are found on page 1

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard. The tests and/or calibrations marked with an "\*" are not ISO/IEC 17025:2017 accredited test results.





**Certificate of Analysis**  
Compliance Test

Client Information:

**Red Mesa Science and Refining**  
4443 E Commerce Dr  
St. George, Utah 84790  
Order # RED240313-010001  
Order Date: 2024-03-13  
Sample # AAFJ685

Batch # R240202MS89  
Batch Date: 2024-02-02  
Extracted From: Hemp

Test Reg State: Utah

Production Facility: Red Mesa Science and Refining  
Production Date: 2024-02-02

Sampling Date: 2024-03-14  
Lab Batch Date: 2024-03-14  
Completion Date: 2024-03-19

Initial Gross Weight: 20.303 g

**Heavy Metals (For UT Clients ONLY)**

Specimen Weight: 249.900 mg

**Passed**  
SOP13.048 (ICP-MS)

Dilution Factor: 200,080

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	.014	100	2000	<LOQ	Lead (Pb)	.006	100	1200	<LOQ
Cadmium (Cd)	.002	100	820	<LOQ	Mercury (Hg)	.014	100	400	<LOQ

**Mycotoxin - Utah**

Specimen Weight: 581.900 mg

**Passed**  
SOP13.007 (LCMS)

Dilution Factor: 2,580

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ	Aflatoxin G2	2.7100E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ	Ochratoxin A	7.5400E-1	3.8	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ					

**Residual Solvents (For UT Clients ONLY)**

Specimen Weight: 54.100 mg

**Passed**  
SOP13.056, SOP13.039 (GCMS)

Dilution Factor: 1,000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,2-Dimethoxyethane	.004	6.4	100	<LOQ	Ethyl Acetate	.0017	6.4	5000	<LOQ
1,4-Dioxane	.0022	8	380	<LOQ	Ethyl Ether	.0004	8	5000	<LOQ
1-Butanol	.0103	6.4	5000	<LOQ	Ethylene glycol	.0013	6.4	620	<LOQ
1-Pentanol	.0103	0.32	5000	<LOQ	Ethylene Oxide		0.32	50	<LOQ
1-Propanol	.003	8	5000	<LOQ	Heptane	.002	8	5000	<LOQ
2,2-dimethylbutane	.0016	12	290	<LOQ	Isopropyl acetate	.0012	8	5000	<LOQ
2,3-dimethylbutane	.0011	26.668	290	<LOQ	Isopropyl alcohol	.111	6.4	5000	<LOQ
2-Butanol	.0002	8	5000	<LOQ	Methanol	.0021	4	3000	<LOQ
2-Ethoxyethanol	.0013	4	160	<LOQ	Methylene chloride	.0006	0.8	600	<LOQ
2-methylbutane	.0108	2	5000	<LOQ	Methylpropane	.0366	2	5000	<LOQ
2-Methylpentane	.0108	6.4	290	<LOQ	N,N-dimethylacetamide	.0229	6.4	1090	<LOQ
3-Methylpentane	.0108	2.4	290	<LOQ	N,N-dimethylformamide	.005	0.132	880	<LOQ
Acetone	.0009	12	5000	<LOQ	n-Hexane		0.8	290	<LOQ
Acetonitrile	.0011	0.96	410	<LOQ	Pentane	.0167	12	5000	<LOQ
Benzene	.0003	0.016	2	<LOQ	Propane	.0849	26.668	5000	<LOQ
Butane	.0028	13.32	5000	<LOQ	Pyridine	.0014	6.4	100	<LOQ
Cumene	.0002	0.032	70	<LOQ	Sulfolane	.0518	6.4	160	<LOQ
Cyclohexane	.0024	0.032	3880	<LOQ	Tetrahydrofuran	.0006	6.4	720	<LOQ
Dimethyl sulfoxide	.001	6.4	5000	<LOQ	Toluene	.0003	2.4	890	<LOQ
Ethanol	.0044	16	NA	<LOQ	Total Xylenes	.0002	7.2	1000	<LOQ

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions are found on page 1

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard. The tests and/or calibrations marked with an "\*" are not ISO/IEC 17025:2017 accredited test results.





# Certificate of Analysis

R&D

**Client Information:**

**Red Mesa Science and Refining**  
4443 E Commerce Dr  
St. George, Utah 84790

Batch # R240202MS89  
Batch Date: 2024-03-04  
Extracted From: Distillate

Test Reg State: Utah

Order # RED240307-010001  
Order Date: 2024-03-07  
Sample # AAFJ223

Sampling Date: 2024-03-08  
Lab Batch Date: 2024-03-08  
Completion Date: 2024-03-12

Initial Gross Weight: 20.303 g



**Pesticides**  
Passed

Product Image

**Pesticides (UT Levels)**  
Specimen Weight: 583.200 mg

**Passed**

SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.570

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	500	<LOQ	Fludioxonil	1.7400E+0	30	400	<LOQ
Acephate	2.3000E-2	30	400	<LOQ	Hexythiazox	4.9000E-2	30	1000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazalil	2.4800E-1	30	200	<LOQ
Acetamiprid	5.2000E-2	30	200	<LOQ	Imidacloprid	9.4000E-2	30	400	<LOQ
Aldicarb	2.6000E-2	30	400	<LOQ	Kresoxim Methyl	4.2000E-2	30	400	<LOQ
Azoxystrobin	8.1000E-2	10	200	<LOQ	Metalaxyl	8.1000E-2	10	200	<LOQ
Bifenazate	1.4150E+0	30	200	<LOQ	Methiocarb	2.2000E-2	30	200	<LOQ
Bifenthrin	4.3000E-2	30	200	<LOQ	Methomyl	2.2000E-2	30	400	<LOQ
Boscalid	5.5000E-2	30	400	<LOQ	MGK-264		48	200	<LOQ
Carbaryl	2.2000E-2	10	200	<LOQ	Myclobutanil	1.0290E+0	30	200	<LOQ
Carbofuran	3.0000E-2	30	200	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chlorantraniliprole	3.3000E-2	30	200	<LOQ	Oxamyl	2.5000E-2	30	1000	<LOQ
Chlorfenapyr	8.0000E-2	48	1000	<LOQ	Pacllobutrazol	6.5000E-2	30	400	<LOQ
Chlorpyrifos	3.5000E-2	30	200	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Clofentazine	1.1900E-1	30	200	<LOQ	Piperonylbutoxide	2.9000E-2	30	2000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	200	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	400	<LOQ
Daminozide	8.8500E-1	30	1000	<LOQ	Propoxur		30	200	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	200	<LOQ
Dimethoate	2.1000E-2	30	200	<LOQ	Spinosad	8.8000E-2	30	200	<LOQ
Ethoprophos	3.6000E-1	30	200	<LOQ	Spiromesifen	2.6100E-1	30	200	<LOQ
Etofenprox	1.1600E-1	30	400	<LOQ	Spirotetramat	8.9000E-2	30	200	<LOQ
Etoxazole	1.1600E-1	30	200	<LOQ	Spiroxamine	1.3100E-1	30	400	<LOQ
Fenoxycarb	1.0700E-1	30	200	<LOQ	Tebuconazole	6.7000E-2	30	400	<LOQ
Fenpyroximate	1.3800E-1	30	400	<LOQ	Thiacloprid	6.4000E-2	30	200	<LOQ
Fipronil	1.0700E-1	30	400	<LOQ	Thiamethoxam	5.0000E-2	30	200	<LOQ
Fonicamid	5.1700E-1	30	1000	<LOQ	Trifloxystrobin	3.7000E-2	30	200	<LOQ

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions and Abbreviations used in this report: Total Active CBD = CBD + (CBD-A \* 0.877), \*Total CBDV = CBDV + (CBDVA \* 0.87), Total Active THC = THCA-A \* 0.877 + Delta 9 THC, Total THC = THC + (THCVA \* 0.87), CBG Total = (CBGA \* 0.877) + CBG, CBN Total = (CBNA \* 0.877) + CBN, Total CBC = CBC + (CBCA \* 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Total THCP = Delta8-THCP + Delta9-THCP, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta6a10a-THC + Delta8-THC + Total CBN + CBT + CBE + Delta8-THCV + Total CBG + Total CBD + Total THC + CBL + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate + Total THCP. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor, (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram, (µg/g) = Microgram per Gram, (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = Water Activity, (mg/Kg) = Milligram per Kilogram. ACS uses simple acceptance criteria. Passed - Analyte/microbe is not detected or is at the level below the action limit per UT rule R68-37. Failed - Analyte/microbe is at the level that equal or above the action limit per UT rule R68-37 Sample not received via laboratory sampling.

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard.

