Current page(s) of operating plan or supplemental operating plan being amended.

Alcohol and Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Operating Plan Supplemental

Form MJ-06: Marijuana Testing Facility

What is this form?

This operating plan supplemental form is required for all applicants seeking a marijuana testing facility license and must accompany the **Marijuana Establishment Operating Plan (Form MJ-01)**, per 3 AAC 306.020(b)(11). Applicants should review **Chapter 306: Article 6** of the **Alaska Administrative Code.** This form will be used to document how an applicant intends to meet the requirements of those regulations. If your business has a formal operating plan, you may include a copy of that operating plan with your application, but all fields of this form must still be completed per 3 AAC 306.020 and 3 AAC 306.615(2).

What additional information is required for testing facilities?

Applicants must identify how the proposed establishment will comply with applicable regulations regarding the following:

- Prohibitions
- Testing practices and procedures
- Employee qualification and training
- Security
- Reporting and records retention

This form must be submitted to AMCO's main office before any marijuana testing facility license application will be considered complete.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Southeast Alaska Laboratories LLC	**License Number:**	10512		
License Type:	Marijuana Testing Facility				
Doing Business As:	Southeast Alaska Laboratories LLC				
Premises Address:	5450B Jenkins Dr				
City:	Juneau	**State:**	ALASKA	**ZIP:**	99801

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Operating Plan Supplemental

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Section 2 – Prohibitions

Applicants should review 3 AAC 306.610 and be able to answer "Agree" to all items below.

The marijuana testing facility will not:	Agree	Disagree
Sell, deliver, distribute or transfer any marijuana or marijuana product to a consumer, with or without compensation	☑	☐
Allow any person to consume marijuana or marijuana product on its licenses premises	☑	☐

Section 3 – Testing Practices and Procedures

Review the requirements under 3 AAC 306.615, 3 AAC 306.635 – 3AAC 306.645, and 3 AAC 306.660, and identify how the proposed establishment will meet the listed requirements.

Describe each test the marijuana testing facility will offer:

SEAL will offer moisture content, foreign matter content, cannabinoid potency testing and microbial contamination testing for all client samples. For any samples that are extracts/concentrates, residual solvent testing will be performed. Per client request, we will offer pesticide screening and terpene profiles.

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Standard Operating Procedure Manual (3 AAC 306.640):

Applicants for marijuana testing facilities must have a written procedures manual with detailed instructions explaining how to perform each testing method the applicant or marijuana testing facility uses, and minimum standards for each test. Applicants should be able to answer "Agree" to all items below.

The marijuana testing facility will ensure that the standard operating procedure manual:	Agree	Disagree
Is available to each employee at all times	☑	☐
Will cover at least the required procedures listed under 3 AAC 306.640	☑	☐

Describe the marijuana testing facility's standard operating procedure for each test the facility will offer:

SEAL will use high-performance liquid chromatography (HPLC) using a modified version of Smith et al. (2013), the method validated by the American Herbal Pharmacopoeia. SEAL will test for THC, THC-A, CBD, CBD-A, and CBN. Additional cannabinoids can be added per client request.
SEAL will use qPCR using a BioRad qPCR machine and DNA primers obtained from Medicinal Genomics. This is a multi-plex qPCR procedure that enables us to simultaneously screen for several microbial species at once.
SEAL will quantify residual solvents using a GC with FID (probably an Agilent?). We will use a method based on Hillard et al. 2016, validated in the cannabis industry.
SEAL will determine organophosphate, organochloride, pyrethroid and carbamate pesticides via enzyme linked immuosorbant assay (ELISA). This method uses antibodies that bind any pesticides in the samples. We will use EPA validated assay kits from Abraxis Scientific. The kits will be read with a standard spectrophotometer.
Total moisture content will be determined with a lab grade scale (accuracy down to 0.0001 g) and a drying oven (capable of being heated to at least 105°C). Foreign matter inspection will be conducted visually with the aid of a dissecting (10x objective) microscope.

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Laboratory Testing of Marijuana and Marijuana Products (3 AAC 306.645):

A licensed marijuana testing facility must meet minimum standards for laboratory testing. Applicants should be able to answer "Agree" to all items below.

The marijuana testing facility applicant has:	Agree	Disagree
Read and understands and agrees to the requirements listed under 3 AAC 306.645	☑	☐

Describe the acceptable range of results for each test the marijuana testing facility will offer:

For potency we will have the ability to detect down to 2µg/ml, with an upper limit of 1mg/ml. Calibration curves will be set to accurately determine any amount between our minimum detection limit and our upper reporting limit. Anything above the reporting limit will be diluted and potency calculated based on the dilution.
Solvent testing will detect solvents down to 1 part per million (ppm). Our highest calibrant for solvents will be 1000 µg/mL, so samples will be diluted down as needed. An acceptable solvent test will be below state required thresholds for the various solvents, presently butanes less than 800 parts per million (PPM) solvent-based concentrates Heptanes less than 500 parts per million (PPM) Benzene less than .025 parts per million (PPM) Toluene less than 1 parts per million (PPM) Hexane less than 10 parts per million (PPM) Total Xylenes (meta-xylenes, para-xylenes, or ortho-xylenes) less than 1 parts per million (PPM). The client will be notified of any test above these thresholds. Anything below detection limit is acceptable for retail sale.
Per state regulations we will test for E. coli, Salmonella, and fungi/yeast down to 1 cfu/g. Any sample testing positive for microorganisms will be flagged and the client notified. Negative tests are acceptable for client release.
For pyrethroid pesticides we can test to 1 part per billion. Since there is presently no state guidelines for pesticide, we will report any data to client. The World Health Organization recommends pyrethroid levels less than 20 ppb for drinking water, so we will notify clients that any result above this is potentially hazardous. We can detect carbamates and organophosphates down to 0.5 ppb and will flag any result above 20 ppb.
Terepenes can be detected down to 200µg/ml; there are no reporting guidelines for terpenes and any data that is above the detection limit will be reported to the client without a flag.
Moisture content can be measured down to 0.001% moisture per sample. All moistures will be reported.

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Operating Plan Supplemental

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Section 4 – Employee Qualification and Training

Review the requirements under 3 AAC 306.625 – 3 AAC 306.630, and identify how the proposed establishment will meet the listed requirements.

Proficiency Testing Program (3 AAC 306.625):

Describe how the marijuana testing facility will ensure the scientific director and all testing analysts are proficient in utilizing testing equipment and analyzing samples:

All lab staff, including the scientific director, will have to provide an initial demonstration of capability (DOC) for each test offered. Details for the DOCs are provided in SEALs Quality Manual. Briefly, each analyst will have to perform a standard number of tests (usually 4) of a known spiked sample, alongside with a method blank. Samples have to have recoverability of 90-110%, and repeatability within 10%. Demonstrations of capability are performed annually by each analyst and for any new method that SEAL develops and offers. Where applicable, SEAL will participate in nationally validated proficiency testing for different testing methodologies and keep records of these tests on file for state auditors. Additionally, all lab staff will be hired only if they meet minimum state requirements (science degree and a minimum of lab experience).

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Operating Plan Supplemental

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Scientific Director (3 AAC 306.630):

All marijuana testing facilities must employ a scientific director with responsibilities and qualifications set out in 3 AAC 306.630 and 3 AAC 306.640(b).

Name the scientific director and describe how he/she meets the qualifications set out in 3 AAC 306.630(b).

Ryland has an undergraduate degree from Penn State University in Energy Engineering which is essentially a chemical engineering degree with a focus on energy related science. This degree included advanced chemistry coursework. Ryland worked for 4 months as a research assistant at Penn State at the Energy Institute. Ryland also conducted research, ran experiments, collected and analyzed data as well as fabricated and maintained equipment. Ryland has worked for 5 years, 9 months at the Alaskan Brewing Co. as a Chemical Engineer. At which his job spanned a wide range of responsibilities but included frequent laboratory work for R&D in wastewater, water quality, product formulation, and analytical chemistry related to beer quality.

Section 5 – Security

Review the requirements under 3 AAC 306.650, and identify how the proposed establishment will meet the listed requirements.

Chain of Custody (3 AAC 306.650):

Describe how the marijuana testing facility will meet the chain of custody requirements as listed in this section:

SEAL will meet the chain of custody requirements by implementing the following operations: (1) issuing instructions for the minimum sample requirements and storage requirements; (2) documenting the condition of the external package and integrity seals utilized to prevent contamination of or tampering with the sample; (3) documenting the condition and amount of sample provided at the time the sample is received at the marijuana testing facility; (4) documenting each person handling the original samples, aliquots, and extracts; (5) documenting any transfer of samples, aliquots, and extracts to another marijuana testing facility for additional testing or at the request of the marijuana cultivation facility or marijuana product manufacturing facility that provided the testing sample; (6) maintaining a current list of authorized persons and restricting entry to the marijuana testing facility to those authorized persons; (7) securing the marijuana testing facility during non-working hours; (8) securing short-term and long-term storage areas when not in use; (9) using a secured area to log in and aliquot samples; (10) ensuring samples are stored appropriately; and (11) documenting the disposal of samples, aliquots, and extracts.

Received by AMCO 4.10.19

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Section 6 – Reporting and Records Retention

Applicants should review 3 AAC 306.670 – 3 AAC 306.675 and be able to answer "Agree" to all items below.

Reporting, Verification (3 AAC 306.670):

The marijuana testing facility applicant:	Agree	Disagree
Has read, understands, and agrees to the reporting requirements outlined in 3 AAC 306.670(a)	☑	☐
Has read, understands, and agrees to the reporting requirements outlined in 3 AAC 306.670(b)	☑	☐

Records Retention (3 AAC 306.675):

The marijuana testing facility applicant:	Agree	Disagree
Has read, understands, and agrees to the records retention requirements listed in 3 AAC 306.675	☑	☐

I declare under penalty of perjury that I have examined this form, including all accompanying schedules and statements, and to the best of my knowledge and belief find it to be true, correct, and complete.

_____
Signature of licensee

_____
Printed name

Subscribed and sworn to before me this _____ day of _____, 20_____.

_____
Notary Public in and for the State of Alaska.

My commission expires: _____

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Applicants should review 3 AAC 306.670 – 3 AAC 306.675 and be able to answer "Agree" to all items below.

Reporting, Verification (3 AAC 306.670):

The marijuana testing facility applicant:	Agree	Disagree
Has read, understands, and agrees to the reporting requirements outlined in 3 AAC 306.670(a)	☒	☐
Has read, understands, and agrees to the reporting requirements outlined in 3 AAC 306.670(b)	☒	☐

Records Retention (3 AAC 306.675):

The marijuana testing facility applicant:	Agree	Disagree
Has read, understands, and agrees to the records retention requirements listed in 3 AAC 306.675	☒	☐

I declare under penalty of perjury that I have examined this form, including all accompanying schedules and statements, and to the best of my knowledge and belief find it to be true, correct, and complete.

Signature of licensee

Jessica Dreibelbis

Printed name

Subscribed and sworn to before me this 11th day of August, 20 16.

Christina Thibodeaux

Notary Public in and for the State of Alaska.

My commission expires: with office

STATE OF ALASKA
OFFICIAL SEAL
Christina N. Thibodeaux
NOTARY PUBLIC
My Commission Expires With Office

ALCOHOL & MARIJUANA CONTROL
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(Additional Space as Needed):