CREEKSIDE ENVIRONMENTAL CONSULTING, LLC

with EVREN NORTHWEST INC.
environmental & natural resource consultants

CLEANER AIR OREGON

LEVEL 1 RISK ASSESSMENT

Lacamas Albany Facility

1290 Industrial Way
Albany, Oregon

Agency Information
Source TBA

Prepared for:

Lacamas Laboratories, Inc.

Issued on:

June 24, 2025
Project No. 351-24004-03

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This

Cleaner Air Oregon
Level 1 Risk Assessment

for:

Lacamas Albany

1290 Industrial Way
Albany, Oregon

Has been prepared for the sole benefit and use of our Client:

Lacamas Laboratories, Inc.

and its assignees

Issued June 24, 2025 *by:*

Brent Jorgensen

Lisa K. Simmons for

Brent Jorgensen
Project Manager
*Creekside Environmental Consulting LL***C**

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Principal Engineering Geologist

Limitations

No warranties are expressed, or implied concerning potential contaminants or environmental media not addressed through sampling and analysis. Creekside Environmental Consulting LLC and EVREN Northwest, Inc. are not responsible for conditions or consequences arising from information not available at the time of report preparation. This Level 1 Risk Assessment was prepared in accordance with generally accepted professional practice in the area at this time for the exclusive use of our client and their agents or authorized third parties. No other warranty, either expressed or implied, is made.

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Tables (in text)

Figures (after text)

Attachment

List of Acronyms and Abbreviations

CAO	Cleaner Air Oregon
ETS	Elephant Trunk System
Lacamas	Lacamas Laboratories, Inc.
OAR	Oregon Administrative Rule
ODEQ	Oregon Department of Environmental Quality
PACT	powder activated carbon treatment
R&D	research and development
RALs	Risk Action Levels
RBCs	Risk-Based Concentrations
TACs	Toxic Air Contaminants
TEU	Toxic Emission Unit

1.0 Introduction

Lacamas Laboratories, Inc. (Lacamas) has applied for an air discharge permit from the Oregon Department of Environmental Quality (ODEQ). As part of the process, the Cleaner Air Oregon (CAO) program evaluates facility risk based on toxic air contaminant emissions and proximity to exposure locations.

This Level 1 Risk Assessment uses the Level 1 Risk Assessment dispersion factor table presented in Oregon Administrative Rule (OAR) 340-245-8050 Table 5 to model risk of toxic air contaminant (TAC) concentrations at approved exposure locations. Lacamas has previously submitted an emissions inventory, which has been approved by CAO. The Level 1 Risk Assessment is considered a conservative approach to estimating risk.

1.1 Facility Process

Lacamas manufactures "make-to-order" pharmaceutical intermediates and fine chemicals for a variety of customers. Onsite operations include chemical manufacturing, research and development (R&D), wastewater treatment and limited welding.

1.2 Facility Description

The subject property consists of three tax lots located in a commercial, residential, and industrial area of Linn County, Oregon (Figure 1). The subject property is identified as TLs 02622, 02626, and 02618 of Linn County tax map 11S03W07CB located in the SW ¼ of the NW ¼ of Section 7, Township 11 South, Range 3 West of the Willamette Meridian. The subject site is irregularly shaped and measures approximately 4.82 acres, occupying commercial property on the northwest and southeast sides of Industrial Way SW near the western terminus of SE 13th Avenue. A railroad spur and drainage ditch border the property on the north. Pertinent site features related to air discharge include:

- Building 1 complex, which contains manufacturing facilities, a R&D laboratory, quality control laboratories, wastewater laboratory, packaging room, cold and warming rooms, and office spaces including offices, closets, restrooms, and a lunchroom. Manufacturing operations occur at a small scale.
- Building 2 complex, which contain manufacturing and wastewater facilities, warehousing, and office spaces including offices, electrical room, closets, and rest rooms. Manufacturing operations occur at medium to large scale.
- Building 6 complex, which contain manufacturing facilities. Manufacturing operations occur at a medium scale.
- Maintenance complex, which consists of storage spaces, utility area, cooling tower, boiler and chiller room, treated water sampling and discharge room.
- Warehouse complex, which consists of chemical storage areas and a freezer.
- Wastewater Treatment complex, which consists of a distillation unit (including supporting tanks), a biological powder activated carbon treatment (PACT) tank, filter press for sludge removal, and associated water tanks.

- West Tank Farm, which consists of ten tanks for solvent storage and two tanks for hazardous waste storage.

1.3 Local Topography

The subject site is located within the United States Geological Survey Albany, OR 7.5-minute quadrangle, at an approximate elevation of 214 feet above mean sea level. The subject site is paved and generally level, with no discernable surface gradient. A drainage feature associated with the storm water system in the area runs along the west side of the property. Surrounding areas slope very gently to the north. The site lies outside the 500-year flood plain and contains no mappable wetlands or deepwater habitats according to geospatial datasets managed by Federal Emergency Management Agency and National Wetlands Inventory.

2.0 Toxic Emission Units (TEUs)

The following TEUs have been identified as associated with Lacamas operations at this facility:

- **CoolTower** – Biocide use in cooling tower water.
- **NatGas** – Emissions from facility-wide natural gas use (boiler operation is the only equipment over 2 MMBtu/hr).
- **R&D+QC LABS** – Emissions from fume hoods and equipment in the R&D lab and the Quality Control (QC) lab
- **PILOT (Kilo Lab)** – Location of small production runs, any operations conducted here will be covered under future batch emission
- **cGMP Suite** – Location of small production runs, any operations conducted here will be covered under future batch emission
- **DC505** – Distillation column for a specific process, not currently used but may be in the future
- **Weld** – Welding during equipment repair or replacement
- **PACT** – Powder activated carbon treatment (PACT) wastewater treatment system
- **DC504-A** – Distillation Column (wastewater separation process) emissions through stack B295
- **DC504-ETS** – Distillation Column (wastewater separation process) emissions collected by the "Elephant Trunk System" (ETS) during tote transfers
- **P001 through P007** – "Make to Order" batch processes with potential for production (dependent on timing of issuance of air permit). Emissions from each process are further subdivided by emission location (P001-A, P001-B, etc.)
    - P001-A
        - Process P001 emissions through stack R212
    - P001-B
        - No TAC emissions - Process P001 emissions through stack B298

- P001-ETS
  - No TAC emissions - Process P001 emissions from tote transfers (Elephant Trunk System)
- P001-FE
  - No TAC emissions - Process P001 fugitive emissions (at Tank Farm)
- P002-A
  - Process P002 emissions through stack B295
- P002-B
  - Process P002 emissions through stack B299
- P002-ETS
  - Process P002 emissions from tote transfers (Elephant Trunk System)
- P003-A
  - No TAC emissions - Process P003 emissions through stack B295
- P003-B
  - No TAC emissions - Process P003 emissions through stack B296
- P003-ETS
  - No TAC emissions - Process P003 emissions from tote transfers (Elephant Trunk System)
- P004-A
  - No TAC emissions - Process P004 emissions through stack B295
- P004-B
  - No TAC emissions - Process P004 emissions through stack B296
- P004-ETS
  - No TAC emissions - Process P004 emissions from tote transfers (Elephant Trunk System)
- P005-A
  - Process P005 emissions through stack B296
- P005-B
  - Process P005 emissions through stack B295
- P005-C
  - Process P005 emissions through stack B299
- P005-ETS
  - Process P005 emissions from tote transfers (Elephant Trunk System)

  - P006-A
    - Process P006 emissions through stack B295
  - P006-B
    - Process P006 emissions through stack B298
  - P006-C
    - No TAC emissions - Process P006 emissions through stack B299
  - P006-ETS
    - Process P006 emissions from tote transfers (Elephant Trunk System)
  - P007-A
    - Process P007 emissions through stack B295
  - P007-B
    - Process P007 emissions through stack B296
  - P007-C
    - Process P007 emissions through stack B299
  - P007-ETS
    - Process P007 emissions from tote transfers (Elephant Trunk System)
- **2023 Product Processes** – Summary of 12-month 2023 TAC Emissions
- **Likely Future Batch TACs** – TACs that are likely to be present in future product processes
- **Potential Future Batch TACs** – TACs that could potentially be present in future product processes

Detail information on the toxic air contaminants (TACs) [1] emitted from each TEU can be found on the ODEQ-approved Emissions Inventory. Stack locations can be found on Figure 3.

[1] TACs as identified by Oregon Administrative Rule (OAR) 340-245-8020 Table 2.

3.0 Modeling Protocol

Below are the Level 1 Modeling Protocol used for the Lacamas facility's CAO risk assessment.

3.1 Stack Heights

The following stack heights were determined by Lacamas:

Table 3-1. Vent Stack Details

Stack Name	Type	Height Above the Ground (feet)	Stack Inside Diameter (feet)	Orientation (Horiz or Vert)
B298	Vertical	68.5	1.25	Vert
B299	Vertical	68.5	1.5	Vert
B295	Vertical	68.5	1.5	Vert
B296	Vertical	68.5	1	Vert
B291	Vertical	75.5	0.5	Vert
R212 Exhaust	Downward Facing Vent	60	0.25	Vert
R206 Relief	Goose Neck	53	0.25	Vert
R203 Relief	Goose Neck	63	0.25	Vert
cGMP Lab Suite	Vertical with Rain Cap	35.6	1.3	Vert
B100 (Bldg 1 Production)	Vertical	28.5	0.75	Vert
GL200 Relief	Goose Neck	28	3	Vert
B663	Vertical	33.75	0.6	Vert
R602 Exhaust	Goose Neck	33.5	0.25	Vert
Boiler 1	Vertical with Rain cap	23.6	1.3	Vert
Boiler 2	Vertical with Rain cap	24.3	1.3	Vert

3.2 Building Details for Fugitive Emissions

For fugitive emissions, the dimensions in Table 3-2 were used. Note: the boilers have stacks, however they are being included in fugitive emissions as they are part of the facility-wide natural gas use emission unit.

Table 3-2. Fugitive Emission Details

Location	Associated Building	Estimated Release Height (in feet)[2]	Building Area (in square feet)
cGMP Lab Suite	Building 1	21	17,000
Tank Farm	Building 2	25	3,360
PACT	None[3]	14	2860
Weld	Building 2	25	3,360
R212 Exhaust	Building 2	25	3,360
Boiler 1 and Boiler 2	Building 3	17	2,000

[2] Building height may be taller.

[3] Dimensions reflect those of the PACT wastewater treatment system.

3.3 Exposure Locations

Figure 3 presents a zoning map with stack locations and distances to nearest residential/child receptors. For receptor locations less than 50 meters from the site (nearest worker and acute exposures), a distance of 50 meters was used.

3.4 Methodology

Level 1 methodology is consistent with the ODEQ-provided "Level1Tool" excel spreadsheet with built-in macros. The process supported by this tool includes:

- Entering TEU information including emission height, number of TACs, stack height (point source), and building dimensions (fugitive emissions).
- Identifying the TACs associated with each TEU and providing their annual emissions (lbs/year) and daily max emissions (lbs/day) from the ODEQ-approved Emission Inventory.
- Identify the closest receptors and provide the distance from each TEU.
- From the above, the tool will then:
    - Calculate the dispersion factors for each TEU and each receptor (referencing the appropriate sub-table in OAR 340-245-8020 Table 5.
    - Calculate the risk associated with each TAC.
    - Summarize the cumulative risk by TEU.

4.0 Level I Risk Assessment Modeling Summary

Level 1 Modeling was conducted following CAO-approved Level 1 Modeling Protocol. For each TEU, the pollutant risks were summed. The excess chronic cancer risk used in this evaluation is the maximum of the residential chronic cancer risk, the child chronic cancer risk or the worker chronic cancer risk. The chronic hazard risk used in this evaluation is the maximum of the residential chronic non-cancer risk, the child chronic non-cancer risk or the worker chronic non-cancer risk. The NatGas TEU was modeled separately using CAO's combustion modeling tool. The two Level 1 models were provided to ODEQ electronically.

4.1 Reporting of Natural Gas Risk

The NatGas TEU falls under the Natural Gas Exemption [OAR 340-245-0050(5)] and is excluded from determining compliance with the Risk Action Levels. However, risk from natural gas use must still be assessed and reported. Based on CAO's Level 1 modeling, below is a summary of rounded risk from the Natural Gas TEUs. A summary of unrounded risk is included in Attachment A.

Table 4-1. Summary of Rounded Risk: Natural Gas TEU

TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
NatGas	1.9	<0.1	0.2	0.1	<0.1	<0.1	<0.1
Total Rounded Risk	1.9	<0.1	0.2	0.1	<0.1	<0.1	<0.1

4.2 Summary of TEU Risk

Based on CAO's Level 1 modeling, below is a summary of rounded risk for the TEUs. A summary of unrounded risk is included as Attachment A.

Table 4-2. Summary of Rounded Risk: TEUs

TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
CoolTower	0	0	0	0.2	<0.1	0.1	<0.1
R&D+QC LABS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PILOT (Kilo Lab)	0	0	0	0	0	0	0
cGMP Suite Lab	0	0	0	0	0	0	0
DC505	0	0	0	0	0	0	0
Weld	2.6	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
DC504-A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DC504-ETS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PACT	0	0	0	<0.1	<0.1	<0.1	<0.1
P001-A	0	0	0	<0.1	<0.1	<0.1	<0.1
P001-B	0	0	0	0	0	0	0
P001-ETS	0	0	0	0	0	0	0
P001-FE	0	0	0	0	0	0	0
P002-A	0	0	0	<0.1	<0.1	<0.1	0
P002-B	0	0	0	<0.1	<0.1	<0.1	0
P002-ETS	0	0	0	<0.1	<0.1	<0.1	0
P003-A	0	0	0	0	0	0	0
P003-B	0	0	0	0	0	0	0
P003-ETS	0	0	0	0	0	0	0
P004-A	0	0	0	0	0	0	0
P004-B	0	0	0	0	0	0	0
P004-ETS	0	0	0	0	0	0	0
P005-A	0	0	0	<0.1	<0.1	<0.1	<0.1
P005-B	0	0	0	<0.1	<0.1	<0.1	<0.1
P005-C	0	0	0	<0.1	<0.1	<0.1	<0.1
P005-ETS	0	0	0	<0.1	<0.1	<0.1	0
P006-A	0	0	0	<0.1	<0.1	<0.1	<0.1
P006-B	0	0	0	<0.1	<0.1	<0.1	<0.1
P006-C	0	0	0	0	0	0	0
P006-ETS	0	0	0	<0.1	<0.1	<0.1	<0.1
P007-A	0	0	0	<0.1	<0.1	<0.1	<0.1
P007-B	0	0	0	<0.1	<0.1	<0.1	<0.1
P007-C	0	0	0	<0.1	<0.1	<0.1	<0.1
P007-ETS	0	0	0	<0.1	<0.1	<0.1	<0.1
2023 Product Processes	1	<0.1	0.1	<0.1	<0.1	<0.1	0.2
Likely Future Batch TACs	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Potential Future Batch TACs	0.5	<0.1	0.1	0.1	<0.1	<0.1	0.2
Total Rounded Risk	4	<0.1	0.3	0.4	<0.1	0.1	0.5

Based on the models predicated risk outputs, the following risk summary is presented for these TEUs:

- Maximum excess cancer risk: 4 (based on residential exposure)
- Maximum chronic hazard (noncancer) risk: 0.5 (based on residential exposure)
- Maximum acute risk: 0.5

Notes:

- Cancer risk is described in terms of the number of excess cancer cases in 1 million lifetimes that may be caused by long-term exposure to a specific chemical concentration.
- Noncancer risk is presented as a Hazard Index and is assessed for both chronic and short-term health effects (acute). A Hazard Index below 1 means the facility is below the level that is expected to harm health.

4.3 Summary of Risk Assessment and Risk Action Levels

Risk Action Levels (RALs) determine the specific actions required of facilities that pose different levels of health risk. Facilities with higher health risks would be required to take more actions to reduce risk and RALs are different for new and existing facilities. Since CAO considered this permit a new source, the following table summarized the RALs based on new sources.

Table 4-2. Risk Action Levels for New Sources

Risk Action Level	Cancer	Noncancer
Source Permit Level	0.5	0.5
Community Engagement	5	1
Toxics Best Available Control Technology (TBACT)	10	1
Immediate Curtailment	25	1

Neither total cancer risk nor total noncancer risk exceed the levels that trigger required community engagement, and both fall within the source permit level.

4.4 Uncertainty Analysis

Although the Level 1 risk assessments were conducted using readily available information, there is uncertainty associated with these assessments of risk related to both quantitative and qualitative uncertainties, such as:

- Lacamas' 'make-to-order' business model presents uncertainty due to its unknown and variable nature. To address this uncertainty in the Level 1 Risk Assessment, a thorough review of past and potential future TACs was conducted and these were all conservatively included. Actual risk will be monitored in a rolling fashion to ensure compliance with the air permit.
- The risk-based concentrations (RBCs) developed by ODEQ for excess cancer risk and chronic noncancer risk assume an exposure duration of 70 years for 24 hours per day. It is unlikely that a person would remain at the same location or in areas potentially impacted by emissions from this specific facility for 70 consecutive years and be exposed for 24 hours per day. Therefore, the Level 1 Risk Assessments likely overestimated cancer and chronic noncancer risk due to this exposure duration assumption.

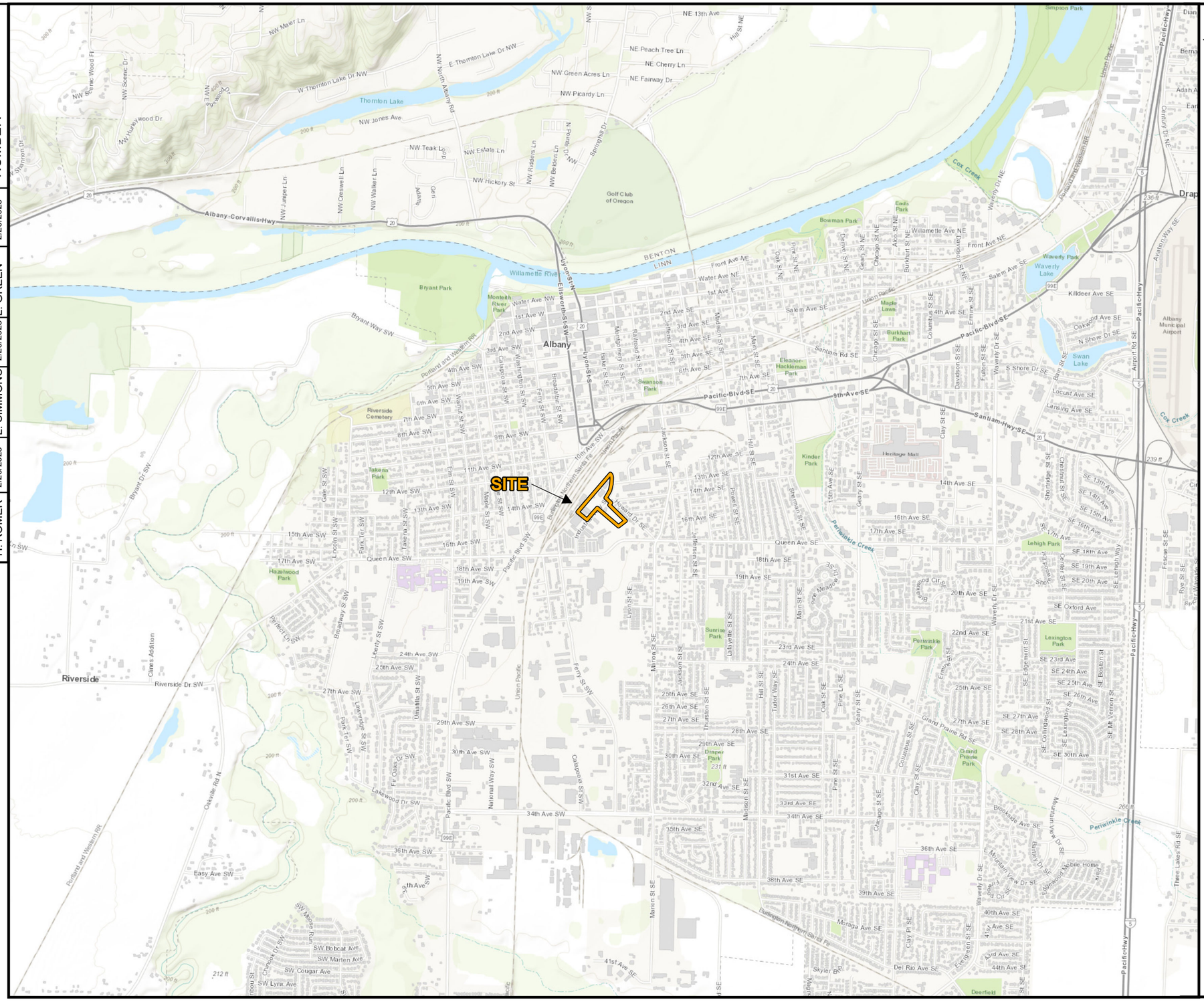
- The excess cancer risk and chronic noncancer risk assessments were performed assuming that all non-process related TEUs operate at their maximum operational capacities and emissions were estimated assuming higher-risk TACs are emitted. It is physically impossible for the facility to operate the facility TEUs at maximum capacity without shutdown time for maintenance and cleaning. Therefore, the Level 1 risk assessments likely overestimated cancer and chronic noncancer risk due to the overestimation of emissions resulting from continuous maximum capacity facility operation and only including higher-risk TACs.
- To assess acute hazard index (noncancer risk), a 24-hour exposure duration was assumed. This risk assessment assumes 24 hours of exposure; however, it is very unlikely that any individual would be exposed for a consecutive 24-hour period outside of a residential location. If the Toxicity Reference Value is based on data collected for a lower exposure duration other than a 24-hour exposure duration, the estimated risk may differ. Therefore, this Level 1 risk assessments may have overestimated or underestimated acute noncancer risk due to the 24-hour exposure duration assumption.
- A Level 1 risk assessment does not use site-specific meteorological or terrain data but instead relies on a table of dispersion factors that ODEQ developed based on conservative modeling analyses. As a result of the conservative nature of the dispersion factors in lieu of site-specific meteorological and terrain data, this Level 1 risk assessments likely overestimated cancer and noncancer risk.
- Only excess cancer risk and chronic and acute noncancer hazard index from TACs that have generic RBCs provided by ODEQ were assessed. As a result, the Level 1 risk assessments may have underestimated cancer and/or noncancer risk associated with those TACs that do not have generic ODEQ RBC. However, the development of RBCs generally relies on a level of conservatism that may overestimate cancer and/or noncancer risk from TACs with known RBCs.

5.0 Conclusion

Neither total cancer risk or total noncancer risk exceed the levels that trigger required community engagement, and both fall within the source permit level. Lacamas has already applied for an air contaminate discharge permit with ODEQ.

Figures

DRAWN BY	CHECKED BY		APPROVED BY	DRAWING NUMBER
H. ROMER	L. SIMMONS	L. GREEN		351-24004(V01)
2/20/2025	2/20/2025	2/20/2025	2/20/2025	



LEGEND:

SUBJECT PROPERTY BOUNDARY

NOTES:

1. BASE MAP DEVELOPED BY ESRI (2024).

0 1,000 2,000 4,000

Feet

(APPROXIMATE 1" = 2,000 FEET WHEN PRINTED 11X17)

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FIGURE 1

SITE VICINITY MAP

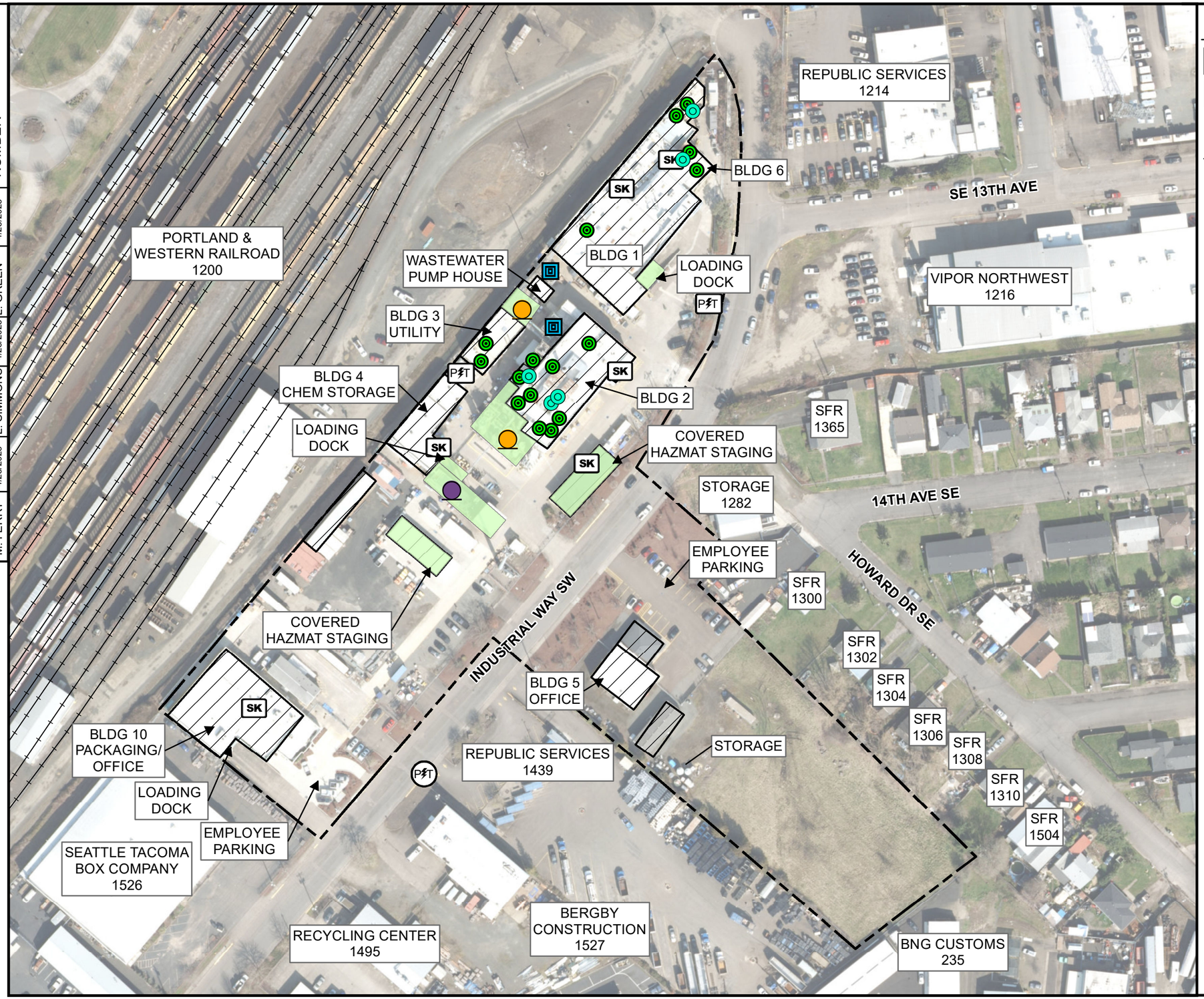
LACAMAS LABORATORIES INC.
1290 INDUSTRIAL WAY
ALBANY OREGON

DRAWING NUMBER 351-24004(V16)

APPROVED BY L. GREEN 4/23/2025

CHECKED BY L. SIMMONS 4/23/2025

DRAWN BY M. FERRY 4/23/2025



LEGEND:

- SUBJECT PROPERTY BOUNDARY
- SUBJECT BUILDING
- DIKED CONTAINMENT WHICH DRAINS TO POTW
- RAILROAD
- CONTROL DEVICE - WET SCRUBBER
- STACKS
- SK SPILL KIT
- PT PAD TRANSFORMER
- PT POLE TRANSFORMER
- COOLING TOWER
- AST FARM
- PACT TANK

SFR = SINGLE FAMILY RESIDENCE

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 AND ENW FIELD NOTES.

2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.

3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 55 110 220

Feet

(APPROXIMATE 1" =115 FEET WHEN PRINTED 11X17)

N

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FIGURE 2

SITE PLAN

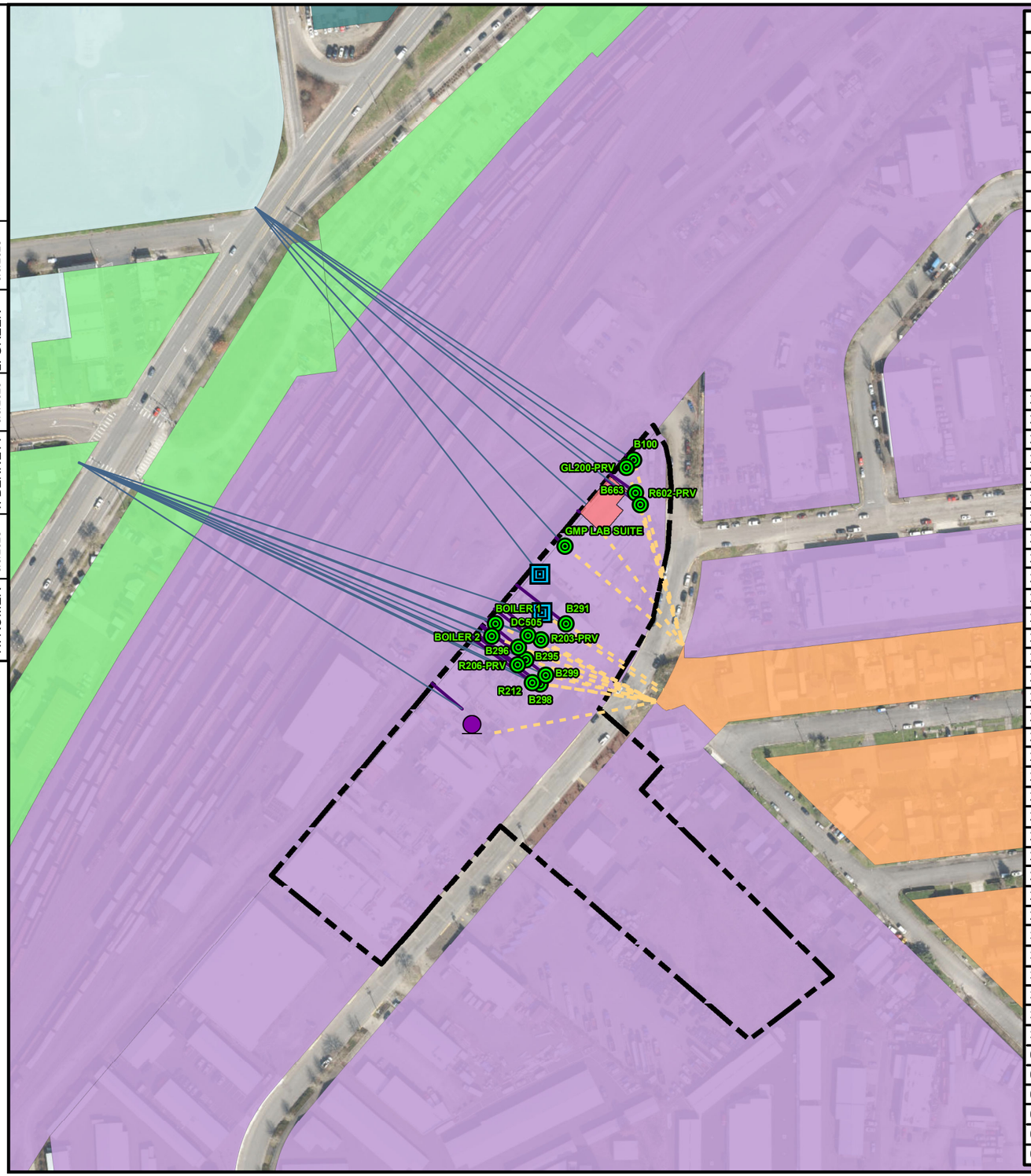
LACAMAS LABORATORIES INC.
1290 INDUSTRIAL WAY
ALBANY OREGON

DRAWING NUMBER 351-24004(V17)

APPROVED BY L. GREEN 6/6/2025

CHECKED BY T. BENNETT 6/6/2025

DRAWN BY H. ROMER 6/6/2025



BLDG	ID	TYPE	DISTANCE (M)
	COOLER	INDUSTRIAL	5
	COOLER	RESIDENTIAL	73
	COOLER	SCHOOL	238
	PACT	INDUSTRIAL	20
	PACT	RESIDENTIAL	84
	PACT	SCHOOL	234
	R&D+QC LABS	INDUSTRIAL	1
	R&D+QC LABS	RESIDENTIAL	70
	R&D+QC LABS	SCHOOL	228
1	B100	INDUSTRIAL	5
1	B100	RESIDENTIAL	98
1	B100	SCHOOL	233
1	GL200-PRV	INDUSTRIAL	5
1	GL200-PRV	RESIDENTIAL	96
1	GL200-PRV	SCHOOL	232
1	GMP LAB SUITE	INDUSTRIAL	6
1	GMP LAB SUITE	RESIDENTIAL	79
1	GMP LAB SUITE	SCHOOL	235
2	203-PRV	INDUSTRIAL	28
2	203-PRV	RESIDENTIAL	66
2	203-PRV	SCHOOL	253
2	206-PRV	INDUSTRIAL	27
2	206-PRV	RESIDENTIAL	73
2	206-PRV	SCHOOL	247
2	B291	INDUSTRIAL	32
2	B291	RESIDENTIAL	60
2	B291	SCHOOL	263
2	B295	INDUSTRIAL	29
2	B295	RESIDENTIAL	70
2	B295	SCHOOL	251
2	B296	INDUSTRIAL	22
2	B296	RESIDENTIAL	75
2	B296	SCHOOL	245
2	B298	INDUSTRIAL	42
2	B298	RESIDENTIAL	60
2	B298	SCHOOL	262
2	B299	INDUSTRIAL	42
2	B299	RESIDENTIAL	58
2	B299	SCHOOL	263
2	DC505	INDUSTRIAL	22
2	DC505	RESIDENTIAL	74
2	DC505	SCHOOL	247
2	R212	INDUSTRIAL	38
2	R212	RESIDENTIAL	64
2	R212	SCHOOL	258
3	BOILER 1	INDUSTRIAL	4
3	BOILER 1	RESIDENTIAL	91
3	BOILER 1	SCHOOL	229
3	BOILER 2	INDUSTRIAL	8
3	BOILER 2	RESIDENTIAL	90
3	BOILER 2	SCHOOL	229
6	B663	INDUSTRIAL	16
6	B663	RESIDENTIAL	82
6	B663	SCHOOL	244
6	R602-PRV	INDUSTRIAL	22
6	R602-PRV	RESIDENTIAL	75
6	R602-PRV	SCHOOL	249

LEGEND:

- SUBJECT PROPERTY BOUNDARY
- R&B AND QC LABS
- HM -- HACKLEMAN MONTEITH
- LI -- LIGHT INDUSTRIAL
- RM -- RESIDENTIAL MEDIUM DENSITY
- LE -- LYON ELLSWORTH
- PB -- PACIFIC BOULEVARD
- STACKS
- PACT TANK
- COOLING TOWER

DISTANCE FROM STACK TO

- INDUSTRIAL
- RESIDENTIAL
- SCHOOL

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023.

0 100 200 400 Feet

(APPROXIMATE 1" = 200 FEET WHEN PRINTED 11X17)

N

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FIGURE 3

DISTANCES TO CLOSEST RECEPTORS

LACAMAS LABORATORIES INC.
1290 INDUSTRIAL WAY
ALBANY OREGON

Attachment A

Summary of Unrounded Risk: TEUs

TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
CoolTower	0	0	0	0.21916125	0.005455313	0.078271875	0.002093978
R&D+QC LABS	0.0322715	0.000263273	0.00339	0.004242109	0.000202221	0.001230911	0.036436851
PILOT (Kilo Lab)	0	0	0	0	0	0	0
cGMP Suite Lab	0	0	0	0	0	0	0
DC505	0	0	0	0	0	0	0
Weld	2.63814117	0.008051545	0.08197	0.003437362	3.30671E-05	0.000645595	0.012902885
DC504-A	0.02198645	0.00023871	0.00374	2.53903E-05	1.63103E-06	1.17434E-05	0.000157543
DC504-ETS	0.03838263	0.0002701	0.00423	0.000173941	7.17949E-06	5.16923E-05	0.000328571
PACT	0	0	0	1.4295E-10	4.60617E-12	7.1475E-11	1.34278E-10
P001-A	0	0	0	9.43299E-07	1.45229E-08	2.83543E-07	2.11313E-07
P001-B	0	0	0	0	0	0	0
P001-ETS	0	0	0	0	0	0	0
P001-FE	0	0	0	0	0	0	0
P002-A	0	0	0	5.31818E-09	3.45336E-10	2.48642E-09	0
P002-B	0	0	0	9.25714E-12	3.8961E-13	2.80519E-12	0
P002-ETS	0	0	0	1.36753E-07	5.75561E-09	4.14404E-08	0
P003-A	0	0	0	0	0	0	0
P003-B	0	0	0	0	0	0	0
P003-ETS	0	0	0	0	0	0	0
P004-A	0	0	0	0	0	0	0
P004-B	0	0	0	0	0	0	0
P004-ETS	0	0	0	0	0	0	0
P005-A	0	0	0	0.009817861	0.00072181	0.00519703	0.000674996
P005-B	0	0	0	0.002611368	0.000169922	0.001223437	0.000168315
P005-C	0	0	0	0.008637654	0.00036385	0.002619718	0.000393941
P005-ETS	0	0	0	0.002590207	0.000110693	0.000796987	0
P006-A	0	0	0	8.64518E-07	5.61375E-08	4.0419E-07	6.2874E-06
P006-B	0	0	0	1.27265E-07	5.35625E-09	3.8565E-08	5.5622E-07
P006-C	0	0	0	0	0	0	0
P006-ETS	0	0	0	2.67894E-07	1.1275E-08	8.118E-08	1.20092E-06
P007-A	0	0	0	1.32518E-05	8.65377E-07	6.23072E-06	2.52117E-06
P007-B	0	0	0	0.005521749	0.000404958	0.002915697	0.002015485
P007-C	0	0	0	8.43778E-07	3.57082E-08	2.57099E-07	3.8784E-07
P007-ETS	0	0	0	2.99997E-05	1.26892E-06	9.1362E-06	4.84847E-05
2023 Product Processes	1.0123067	0.007345336	0.1106	0.014803879	0.000624792	0.004498505	0.189551915
Likely Future Batch TACs	0.03964286	0.000291667	0.00445	0.084423273	0.003552727	0.025579636	0.014478796
Potential Future Batch TACs	0.53228765	0.003809638	0.05951	0.066991073	0.002841218	0.020456769	0.230884995
Total Risk	4.31501896	0.020270269	0.26788	0.422483556	0.014491644	0.143516071	0.49014792

Summary of Unrounded Risk: Natural Gas

TEU Identifier	Cancer Risk			Chronic Risk			Acute
	Residential	Child	Worker	Residential	Child	Worker	
NatGas	1.87426824	0.01846647	0.16282	0.051801045	0.000984166	0.013186542	0.012477649
Total Risk	1.87426824	0.01846647	0.16282	0.051801045	0.000984166	0.013186542	0.012477649