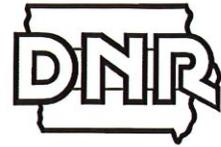




Iowa Department of Natural Resources
Solid Waste Land Application
Permit Application Form



Application for a solid waste land application must be accompanied by the plans, specifications and additional information required by the applicable solid waste rules under Iowa Administrative Code 567 Chapter 121.

Send completed applications with attached information to Becky.Jolly@dnr.iowa.gov, or:

Iowa Department of Natural Resources
 Land Quality Bureau
 Solid Waste Section
 502 E 9th St
 Des Moines, IA 50319-0034

RECEIVED

FEB 23 2026

IOWA DNR
 FIELD OFFICE 3

For questions concerning this application please contact the Department at 515-721-7979.

New Permit

Permit Renewal # 81 -SDP- 05 - 92P -LAN

Section 1. Contact Information

Solid Waste Generator Name: Essentia Protein Solutions Phone: 712-466-8856

Address: 101 Main Street City, State, Zip: Lytton, Iowa 50561

Email: Jack.Wolf@essentiaproteins.com Fax: _____

Physical Location of Generating Facility:

Address: 101 Main Street City, State, Zip: Lytton, Iowa 50561

Responsible Official Name: Jack Wolf Phone: 712-466-8856

Address: 101 Main Street City, State, Zip: Lytton, Iowa 50561

Email: Jack.Wolf@essentiaproteins.com Fax: _____

Certified Professional Agronomist Name: Joe Lally Phone: 712-263-9729

Address: Agri Management Center, 1118 2nd Avenue City, State, Zip: Denison, Iowa 51442

Email: jotbud1@gmail.com License #: TSP032471 Fax: 800-663-2814

Consultant Name (if any): Gregory L. Sindt Phone: 515-233-6100

Address: 1519 Baltimore Drive City, State, Zip: Ames, IA 50010

Email: Greg.Sindt@bolton-menk.com Fax: 515-233-4430

Section 2. Waste Type

Does the material to be land applied contain free liquids¹? Yes No

If the material is a sludge, is it generated by a:

Commercial or industrial wastewater treatment facility

Water supply treatment facility

Air pollution control facility

Other; Please elaborate: _____

Expected weight (tons) of solid waste to be land applied per year by the facility: 2600 Tons

¹ The presence of free liquids is determined by the paint filter test. The paint filter test is done by placing a 100-milliliter or 100-gram representative sample of the material into a standard mesh number 60 (fine mesh size) conical paint filter for five minutes. Any free liquid visible below the funnel indicates sample failure.

Section 3. Permit Application Checklist

The following items must be attached. If the permit is being renewed and there is no change from what was submitted with previous applications, the Doc Id# may be listed in lieu of resubmitting the document. Analytical results and a cost closure estimate (for facilities storing material at the application sites) must be submitted with each renewal. Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with the applicable chapters of Iowa Administrative Code. If an application is found by the DNR to be incomplete, it may be denied and returned to the applicant.

Required Documents		Attached or Doc Id#	
Executive Summary (<i>permit renewals only</i>) <ul style="list-style-type: none"> Summary of each special provision of the current permit to determine if it is to remain the same, be revised or be removed. Summary of each permit amendment, if any, that occurred during the current permit cycle to determine if it shall be included with the renewed permit, be revised or be removed. Provide documentation and certification as required for new permit amendment requests and new variance requests from Iowa Administrative Code, if an 		Yes	
Description of the material including source, quantity and method of treatment prior to land application	567 IAC 121.7(1)"a"(11)	<input type="checkbox"/>	14160
Description of the land application process, including method of application, when application will take place, and equipment to be used	567 IAC 121.7(1)"a"(13) 567 IAC 121.7(1)"a"(14)	<input type="checkbox"/>	14160
Analytical results	567 IAC 121.7(1)"a"(12)	<input checked="" type="checkbox"/>	NA
Evidence waste application will not cause adverse effects	567 IAC 121.7(1)"a"(15) through 567 IAC 121.7(1)"a"(17)	<input type="checkbox"/>	14160
Site Operation Plan	567 IAC 121.7(1)"a"(18)	<input type="checkbox"/>	14160
Emergency Response and Remedial Action Plan	IAC 567 102.14	<input type="checkbox"/>	14160
Site Closure Plan	IAC 567 102.12(10)	<input type="checkbox"/>	14160
Proof of financial assurance and closure cost estimate (only if material will be stored at application sites)	567 IAC 121.8	<input type="checkbox"/>	NA
Table of land application sites. Include the following for each application site: <ul style="list-style-type: none"> Site ID County and township Legal description of site Total acres in site Acres eligible for land application Name of landowner 	567 IAC 121.7(1)"a"(4)	<input type="checkbox"/>	14160
For each <u>new</u> application site, include the following:			
Aerial photograph with the application area(s) designated	567 IAC 121.7(1)"a"(1)	<input type="checkbox"/>	NA
Soil map	567 IAC 121.7(1)"a"(2)	<input type="checkbox"/>	NA
Water table levels	567 IAC 121.7(1)"a"(10)	<input type="checkbox"/>	NA
Location of wells within one mile of the site	567 IAC 121.7(1)"a"(5)	<input type="checkbox"/>	NA
Evidence of Natural Resources Conservation Service (NRCS) review and soil loss information	567 IAC 121.7(1)"a"(3) 567 IAC 121.7(1)"a"(6) through 567 IAC 121.7(1)"a"(8)	<input type="checkbox"/>	NA
Site soil testing	567 IAC 121.7(1)"a"(9)	<input type="checkbox"/>	NA
Proof of ownership or legal entitlement to use the site (agreement with the land owner)	567 IAC 121.7(1)"b"(6)	<input type="checkbox"/>	NA

Section 4. Applicant Certification

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I further certify that the construction and operation of the above described facility will be in accordance with the plans, specifications, reports and related communications accepted by the Iowa Department of Natural Resources and on file in its office; and in accordance with conditions imposed in the permit issued by the Iowa Department of Natural Resources.

Signature: Jack Wolf Date: 2/13/2026
Printed Name: Jack Wolf Title: Plant Manager

Solid Waste Land Application
Essentia Protein Solutions
Permit Number 81-SPD-05-92P-LAN
Permit Application Form
Executive Summary 2026

This solid waste permit application renewal is for land application of by-products from Essentia's Lytton, Iowa protein processing plant.

The current permit includes eight land application sites. This permit renewal application does not request any changes or modifications to this permit.

The application sites associated with this permit are:

1. AC-1 - Field ID Number 13-03-01
2. Proliant Inc. - Field ID Number 13-03-02
3. Dan Akerman (Peyton Home) - Field ID Number 13-03-06
4. Dan Akerman - Field ID Number 81-05-08
5. Dan Akerman, (Verlons) – Field ID Number 81-05-09
6. Rick Hecht 1 - Field ID Number 13-03-07
7. Rick Hecht 2 - Field ID Number 13-03-08
8. Rick Hecht 3 - ID Number 81-05-07



Microbac Laboratories, Inc., Newton
 CERTIFICATE OF ANALYSIS

1JA1737

Essentia Proteins - Lytton

Project Name: Grease Cap

Erik Johnson
 1347 Hwy 44
 Harlan, IA 51537

Project / PO Number: N/A
 Received: 01/23/2026
 Reported: 02/03/2026

Analytical Testing Parameters

Client Sample ID:	Grease Cap Off Anaerobic	Collected By:	Struchen, Matt
Sample Matrix:	Sludge	Collection Date:	01/21/2026 9:00
Lab Sample ID:	1JA1737-01		

Inorganics Total	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 351.2, Rv. 2 (1993) Nitrogen, Kjeldahl, total	1150	97	mg/kg dry		01/28/26 1410	02/02/26 1356	SAA
SM 2540 G-2011 % Solids	77.0	0.10	%		01/22/26 0959	01/23/26 1404	LAW
n-Hexane Extractable Material by Gravametric	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 9071B Oil & Grease	107000000	100	mg/kg dry		02/02/26 0948	02/03/26 1310	RDH
Metals Total by ICP	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3050B/EPA 6010B Phosphorus as P	1610	77.3	mg/kg dry		01/30/26 0716	01/31/26 0042	JAR
Determination of Conventional Chemistry Parameters	Result	RL	Units	Note	Prepared	Analyzed	Analyst
TIMBERLINE - Distilled Nitrogen, Ammonia	6.56	5.00	mg/kg dry		01/27/26 0809	01/28/26 1027	BHF

Definitions

RL: Reporting Limit

Report Comments

Reviewed and Approved By:

Heather Tisdale
 Customer Relationship Specialist
 heather.tisdale@microbac.com
 02/03/26 14:23

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

CHAIN OF CUSTODY RECORD



600 East 17th Street South
 Newton, IA 50208
 Phone: 641-792-8451

Page 1 of 1
 Printed: 1/19/2026 2:45:05PM

SITE INFORMATION

Sampler: Matt Struchen

Project: Grease Cap

REPORT TO

Erik Johnson
 Essentia Proteins - Lytton
 1347 Hwy 44
 Harlan, IA 51537

INVOICE TO

Mark Peterson
 Essentia Proteins - Lytton
 101 Main St, PO Box 139
 Lytton, IA 50561

SPECIAL INSTRUCTIONS

None

Email for PO

Turn Around Time Standard RUSH, need by ___/___/___

LAB USE ONLY



1 J A 1 7 3 7
 Essentia Proteins - Lytton
 PM: Heather Tisdale

Temperature: 0.6 °C

Number Sample Identification / Client ID

Matrix

Sample Type

Date

Time

Containers

Analyses

Lab Sample Number

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses	Lab Sample Number
01-001	Grease Cap Off Anaerobic	Solid	Grease	1/21/26	9:00 AM	1	Percent Solids SM254010B P G-2011 TKN E351.2 nh3-timberline-dist HEM-OG E1644A	01

Relinquished By

Date/Time

Matt Struchen 1/21/26 9:00AM

Relinquished By

Date/Time

[Signature] 1/23/26 11:45AM

Received By

Date/Time

Received for Lab By

Date/Time

Remarks:

[Empty box for remarks]