

2021 Spring Sampling Event

ALTEN, LLC

RECEIVED

JUN 21 2021

IIS# 84069

NE Dept Of Environment and Energy
By: _____ DEE#195 _____

Groundwater Monitoring Report

Submitted by:



449 E. DEERE STREET
WEST POINT, NEBRASKA 68788
402-372-2236





**NUTRIENT
ADVISORS**

June 16, 2021

Patrick Ducey
Agricultural Section
Nebraska Department of Environment and Energy
P.O. Box 98922
Lincoln, NE 68509-8922

RE: 2021 Spring Sampling Event
AltEn, LLC
IIS# 84069

Dear Mr. Ducey:

This report summarizes Nutrient Advisors monitoring operations at AltEn, LLC in Saunders County, Nebraska.

Lyle Kreikemeier (Certification #79745) conducted ground water sampling on June 2, 2021. Prior to sampling, ground water levels and well depths were measured in each well using an electronic water level indicator. Wells were purged using an electric submersible pump. A minimum of three well volumes were purged from each well while groundwater parameters (temperature, pH and conductivity) were monitored by Nutrient Advisors until readings stabilized. Ground water samples were collected following stabilized readings and placed in laboratory-supplied bottles. Complete field data sheets are included.

Samples were shipped via UPS to Ward Laboratories, Inc. in Kearney, Nebraska and analyzed for nitrate (EPA Method 353.2), sulfate (EPA Method 375.4), ammonia (EPA Method 350.1), chloride (EPA Method 325.1), total nitrogen (EPA Method 353.2), and total dissolved solids (EPA Method 160.1). Additional samples were sent to South Dakota Agricultural Laboratories in Brookings, SD and analyzed for brassinazole, cyproconazole, difenoconazole, epoxiconazole, fluconazole, ipconazole, isavuconazole, itraconazole, metconazole, posaconazole, propiconazole, prothioconazole, ravuconazole, tebuconazole, tetraconazole, thiabendazole, uniconazole, voriconazole, acetamiprid, clothianidin, thiacloprid, imidacloprid, thiamethoxam, nitenpyram, dinotefuran, dimoxystrobin, picoxystrobin, azoxystrobin, pyraclostrobin, orysastrobin, trifloxystrobin, fluoxastrobin, glyphosate, glufosinate, abemectin, desthio-prothioconazole, and sulfonic acid prothioconazole. Results from this sampling event are reported on the Ground Water Monitoring Results Reports. The duplicate sample was collected from MW-2. Complete analytical results including laboratory detection limits and chain-of-custody are contained in this report.

If you have any questions please call our office.

Sincerely,

Lyle Kreikemeier
Nutrient Advisors



Field Data Sheet

GENERAL INFORMATION

DATE: 6-2-21

Site Name:	AltEn, LLC	IIS Number:	84069
Sampler:	Lyle Kreikemeier	Sampler License:	79745
Monitoring Well Number:	MW-1	Well Registration:	G-190723A
Sample ID (must match COC):	ALT-S21-1	Weather Conditions:	Sunny, 64°F, Lt. Wind
Top of Casing (TOC) Elev.:	114.77	Description of Top of Casing (TOC) Mark:	North

GROUNDWATER MEASUREMENTS AND PURGE CALCULATIONS

Depth to bottom of casing from TOC (0.00 ft.):		42.61	Well Pipe Volume Table	
	Depth to water from TOC (0.00 ft.):	34.65	Diameter	Gallons/Linear Foot
A	Depth to bottom of casing - Depth to water	7.96	2"	0.17
	Casing diameter (in.):	2"	3"	0.38
B	Gallons/Linear Foot (Refer to Table)	0.17	4"	0.66
	Well volume (gal.) = A x B	1.35	6"	1.5
3 times well volume (gal.) = 3 x C		4.06	8"	2.6
5 times well volume (gal.) = 5 x C			Actual Water Purged (gal.): 4.25	
Groundwater measurement equipment used:		Electric Tape		
Purge equipment used:		<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Dedicated <input checked="" type="checkbox"/> Non Dedicated		
Well evacuated to Dryness		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

PURGE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Approximate Gallons Purged	Observations (clear, cloudy, odors)
9:08	13.7	6.38	1402u	1.0	Clear
9:08	12.8	6.31	1461u	2.0	Clear
9:09	12.5	6.29	1471u	3.0	Clear

STABILIZED GROUNDWATER SAMPLE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Appearance (clear, cloudy, color)	Analysis	Preservatives
9:10AM	12.4	6.29	1470u	Clear	NH4N03	H2SO4

TIMES:

8:56AM UNLOCK WELL

8:57AM DECON EQUIPMENT

9:02AM MEASURE WELL

9:07AM START PURGE

9:14AM LOCK WELL

NOTES:

8:44AM ALT-S21-6 Blank

Field Data Sheet

GENERAL INFORMATION

DATE: 6-2-21

Site Name:	AltEn, LLC	IIS Number:	84069
Sampler:	Lyle Kreikemeier	Sampler License:	79745
Monitoring Well Number:	MW-2	Well Registration:	G-190723B
Sample ID (must match COC):	ALT-S21-2	Weather Conditions:	Sunny, 64°F, Lt. Wind
Top of Casing (TOC) Elev.:	105.64	Description of Top of Casing (TOC) Mark:	North

GROUNDWATER MEASUREMENTS AND PURGE CALCULATIONS

Depth to bottom of casing from TOC (0.00 ft.):		36.22	Well Pipe Volume Table	
	Depth to water from TOC (0.00 ft.):	27.69	Diameter	Gallons/Linear Foot
A	Depth to bottom of casing - Depth to water	8.53	2"	0.17
	Casing diameter (in.):	2"	3"	0.38
B	Gallons/Linear Foot (Refer to Table)	0.17	4"	0.66
	Well volume (gal.) = A x B	1.45	6"	1.5
3 times well volume (gal.) = 3 x C		4.35	8"	2.6
5 times well volume (gal.) = 5 x C			Actual Water Purged (gal.): 4.75	
Groundwater measurement equipment used:		Electric Tape		
Purge equipment used:		<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Dedicated <input checked="" type="checkbox"/> Non Dedicated		
Well evacuated to Dryness		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

PURGE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Approximate Gallons Purged	Observations (clear, cloudy, odors)
9:30	13.7	6.51	1417u	1.0	Clearish
9:30	12.9	6.47	1446u	2.0	Clear
9:31	12.6	6.45	1468u	3.0	Clear
9:31	12.4	6.45	1477u	4.0	Clear

STABILIZED GROUNDWATER SAMPLE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Appearance (clear, cloudy, color)	Analysis	Preservatives
9:32AM	12.4	6.44	1479u	Clear	NH4N03	H2SO4

TIMES:

9:19AM UNLOCK WELL
 9:20AM DECON EQUIPMENT
 9:24AM MEASURE WELL
 9:28AM START PURGE

 9:37AM LOCK WELL

NOTES:

9:32AM ALT-S21-5 Duplicate

Field Data Sheet

GENERAL INFORMATION

DATE: 6-2-21

Site Name:	AltEn, LLC	IIS Number:	84069
Sampler:	Lyle Kreikemeier	Sampler License:	79745
Monitoring Well Number:	MW-3	Well Registration:	G-190723C
Sample ID (must match COC):	ALT-S21-3	Weather Conditions:	Sunny, 64°F, Lt. Wind
Top of Casing (TOC) Elev.:	110.3	Description of Top of Casing (TOC) Mark:	North

GROUNDWATER MEASUREMENTS AND PURGE CALCULATIONS

Depth to bottom of casing from TOC (0.00 ft.):		41.10	Well Pipe Volume Table	
	Depth to water from TOC (0.00 ft.):	32.74	Diameter	Gallons/Linear Foot
A	Depth to bottom of casing - Depth to water	8.36	2"	0.17
	Casing diameter (in.):	2"	3"	0.38
B	Gallons/Linear Foot (Refer to Table)	0.17	4"	0.66
	Well volume (gal.) = A x B	1.42	6"	1.5
3 times well volume (gal.) = 3 x C		4.26	8"	2.6
5 times well volume (gal.) = 5 x C			Actual Water Purged (gal.): 5.00	
Groundwater measurement equipment used:		Electric Tape		
Purge equipment used:		<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Dedicated <input checked="" type="checkbox"/> Non Dedicated		
Well evacuated to Dryness		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

PURGE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Approximate Gallons Purged	Observations (clear, cloudy, odors)
9:54	13.1	5.76	1412u	1.0	Clear
9:55	13.0	5.77	1385u	2.0	Clear
9:56	12.9	6.07	1399u	3.0	Clear
9:56	12.9	6.15	1397u	4.0	Clear

STABILIZED GROUNDWATER SAMPLE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Appearance (clear, cloudy, color)	Analysis	Preservatives
9:57AM	12.9	6.20	1410u	Clear	NH4N03	H2SO4

TIMES:

9:42 AM UNLOCK WELL
 9:44 AM DECON EQUIPMENT
 9:48 AM MEASURE WELL
 9:53 AM START PURGE

 10:00 AM LOCK WELL

NOTES:

Field Data Sheet

GENERAL INFORMATION

DATE: 6-2-21

Site Name:	AltEn, LLC	IIS Number:	84069
Sampler:	Lyle Kreikemeier	Sampler License:	79745
Monitoring Well Number:	MW-4	Well Registration:	G-190723D
Sample ID (must match COC):	ALT-S21-4	Weather Conditions:	Sunny, 64°F, Lt. Wind
Top of Casing (TOC) Elev.:	103.66	Description of Top of Casing (TOC) Mark:	North

GROUNDWATER MEASUREMENTS AND PURGE CALCULATIONS

Depth to bottom of casing from TOC (0.00 ft.):		36.14	Well Pipe Volume Table	
Depth to water from TOC (0.00 ft.):		26.64	Diameter	Gallons/Linear Foot
A	Depth to bottom of casing - Depth to water	9.50	2"	0.17
	Casing diameter (in.):	2"	3"	0.38
B	Gallons/Linear Foot (Refer to Table)	0.17	4"	0.66
	Well volume (gal.) = A x B	1.62	6"	1.5
3 times well volume (gal.) = 3 x C		4.85	8"	2.6
5 times well volume (gal.) = 5 x C			Actual Water Purged (gal.): 5.00	
Groundwater measurement equipment used:		Electric Tape		
Purge equipment used:		<input type="checkbox"/> Bailor <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Dedicated <input checked="" type="checkbox"/> Non Dedicated		
Well evacuated to Dryness		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

PURGE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Approximate Gallons Purged	Observations (clear, cloudy, odors)
10:11	15.3	6.34	1730u	1.0	Cloudy
10:12	13.1	6.38	1870u	2.0	Clear
10:13	12.6	6.40	1879u	3.0	Clear
10:14	12.6	6.40	1880u	4.0	Clear

STABILIZED GROUNDWATER SAMPLE PARAMETERS

Time	Temp. (C or F)	pH	Specific Conductivity (umhos)	Appearance (clear, cloudy, color)	Analysis	Preservatives
10:14 AM	12.6	6.42	1877u	Clear	NH4N03	H2SO4

TIMES:

10:02 AM	UNLOCK WELL
10:03 AM	DECON EQUIPMENT
10:06 AM	MEASURE WELL
10:11 AM	START PURGE
10:20 AM	LOCK WELL

NOTES:

Groundwater Monitoring Results Report

Site Name		Sampling Date		Sampler		Sampler License #		Laboratory			
AltEn, LLC		6/2/2021		Lyle Kreikemeier		79745		Ward Laboratories, Inc.			
Lab #	Well #	Sample #	Stabilized Temp. (C or F)	Stabilized pH	Stabilized Conductivity (uhmos)	Nitrate (ppm)	Sulfate (ppm)	Chloride (ppm)	Total Nitrogen (ppm)	Ammonium (ppm)	Total Dissolved Solids (ppm)
6096	MW-1	ALT-S21-1	12.4 C	6.29	1470	59.4	62	135.0	56.6	n.d.	834
6097	MW-2	ALT-S21-2	12.4 C	6.44	1479	33.7	83	134.0	38.0	n.d.	1121
6098	MW-3	ALT-S21-3	12.9 C	6.20	1410	43.2	73	120.0	48.0	n.d.	1100
6099	MW-4	ALT-S21-4	12.6 C	6.42	1877	98.9	54	97.0	108.2	n.d.	1527
6100	Duplicate	ALT-S21-5	12.4 C	6.44	1479	33.9	85	135.0	38.5	n.d.	1167
6101	Field Blank	ALT-S21-6	n/a	n/a	n/a	n.d.	n.d.	1	0.9	n.d.	52
Well #	TOC Elev. (ft.)	Depth to Water (ft.)	Water Elev.	Amount Purged (gal.)				Parameter	EPA Method	Detection Limit (ppm)	Reporting Limit (ppm)
MW-1	114.77	34.65	80.12	4.25				Nitrate	353.2	0.05	0.1
MW-2	105.64	27.69	77.95	4.75				Sulfate	375.4	0.05	1
MW-3	110.30	32.74	77.56	5.00				Chloride	325.1	0.1	1
MW-4	103.66	26.64	77.02	5.00				Ammonium	350.1	0.01	0.1
								Total Dissolved Solids	160.1	1	1



Groundwater Monitoring Results Report

Site Name	Sampling Date	Sampler	Sampler License #	Laboratory
AltEn, LLC	6/2/2021	Lyle Kreikemeier	79745	SD Agricultural Laboratories

Lab #	21PE004400	21PE004401	21PE004402	21PE004403
Well #	MW-1	MW-2	MW-3	MW-4
Sample #	ALT-S21-1C	ALT-S21-2C	ALT-S21-3C	ALT-S21-4C
Stabilized Temp. (C or F)	12.4 C	12.4 C	12.9 C	12.6 C
Stabilized pH	6.29	6.44	6.20	6.42
Stabilized Conductivity (u/mhos)	1470	1479	1410	1877
Brassinazole (ppb)	n.d.	n.d.	n.d.	n.d.
Cyproconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Difenoconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Epoxiconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Fluconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Ipconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Isavuconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Itraconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Metconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Posaconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Propiconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Prothioconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Ravuconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Tebuconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Tetraconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Thiabendazole (ppb)	n.d.	n.d.	n.d.	n.d.
Uniconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Voriconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Acetamiprid (ppb)	n.d.	n.d.	n.d.	n.d.
Clothianidin (ppb)	n.d.	n.d.	n.d.	34
Thiacloprid (ppb)	n.d.	n.d.	n.d.	n.d.
Imidacloprid (ppb)	n.d.	n.d.	n.d.	n.d.
Thiamethoxam (ppb)	n.d.	n.d.	n.d.	19.2
Nitenpyram (ppb)	n.d.	n.d.	n.d.	n.d.
Dinotefuran (ppb)	n.d.	n.d.	n.d.	n.d.
Dimoxystrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Picoxystrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Azoxystrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Pyraclastrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Orysastrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Trifloxystrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Fluoxastrobin (ppb)	n.d.	n.d.	n.d.	n.d.
Glyphosate (ppb)	n.d.	n.d.	n.d.	n.d.
Glufosinate (ppb)	n.d.	n.d.	n.d.	n.d.
Abemectin (ppb)	n.d.	n.d.	n.d.	n.d.
Desthio-Prothioconazole (ppb)	n.d.	n.d.	n.d.	n.d.
Sulfonic Acid Prothioconazole (ppb)	n.d.	n.d.	n.d.	n.d.

Parameter	EPA Method	Detection Limit (ppb)	Reporting Limit (ppb)
Brassinazole	LC-MS/MS	2	5
Cyproconazole	LC-MS/MS	2	5
Difenoconazole	LC-MS/MS	1	4
Epoxiconazole	LC-MS/MS	1	3
Fluconazole	LC-MS/MS	1	4
Ipconazole	LC-MS/MS	2	6
Isavuconazole	LC-MS/MS	1	4
Itraconazole	LC-MS/MS	1	5
Metconazole	LC-MS/MS	2	5
Posaconazole	LC-MS/MS	1	5
Propiconazole	LC-MS/MS	2	5
Prothioconazole	LC-MS/MS	2	6
Ravuconazole	LC-MS/MS	1	3
Tebuconazole	LC-MS/MS	2	5
Tetraconazole	LC-MS/MS	1	4
Thiabendazole	LC-MS/MS	2	5
Uniconazole	LC-MS/MS	1	3
Voriconazole	LC-MS/MS	1	4
Acetamiprid	LC-MS/MS	1	3
Clothianidin	LC-MS/MS	2.5	8
Thiacloprid	LC-MS/MS	2	6
Imidacloprid	LC-MS/MS	1.2	4
Thiamethoxam	LC-MS/MS	1	3
Nitenpyram	LC-MS/MS	2.5	8
Dinotefuran	LC-MS/MS	1.2	4
Dimoxystrobin	LC-MS/MS	3	8
Picoxystrobin	LC-MS/MS	1	3
Azoxystrobin	LC-MS/MS	1	2
Pyraclastrobin	LC-MS/MS	3	8
Orysastrobin	LC-MS/MS	2	7
Trifloxystrobin	LC-MS/MS	3	8
Fluoxastrobin	LC-MS/MS	1	3
Glyphosate	LC-MS/MS	3	10
Glufosinate	LC-MS/MS	3	10
Abemectin	LC-MS/MS	3	10
Desthio-Prothioconazole	LC-MS/MS	2	5
Sulfonic Acid Prothioconazole	LC-MS/MS	3	8

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6096

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-1

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	59.4	353.2	0.05	0.1
Sulfate, SO ₄ -S	62	375.4	0.05	1
Chloride, Cl	135	325.1	0.1	1
Total Nitrogen, N	56.6	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	834	160.1	1	1

"<" - Not Detected / Below Detection Limit

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6097

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-2

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	33.7	353.2	0.05	0.1
Sulfate, SO ₄ -S	83	375.4	0.05	1
Chloride, Cl	134	325.1	0.1	1
Total Nitrogen, N	38.0	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	1121	160.1	1	1

"<" - Not Detected / Below Detection Limit

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6098

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-3

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	43.2	353.2	0.05	0.1
Sulfate, SO ₄ -S	73	375.4	0.05	1
Chloride, Cl	120	325.1	0.1	1
Total Nitrogen, N	48.0	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	1100	160.1	1	1

"<" - Not Detected / Below Detection Limit

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6099

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-4

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	98.9	353.2	0.05	0.1
Sulfate, SO ₄ -S	54	375.4	0.05	1
Chloride, Cl	97	325.1	0.1	1
Total Nitrogen, N	108.2	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	1527	160.1	1	1

"<" - Not Detected / Below Detection Limit

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6100

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-5

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	33.9	353.2	0.05	0.1
Sulfate, SO ₄ -S	85	375.4	0.05	1
Chloride, Cl	135	325.1	0.1	1
Total Nitrogen, N	38.5	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	1167	160.1	1	1

"<" - Not Detected / Below Detection Limit

Account No. : 20850

Water Analysis Report

NUTRIENT ADVISORS
449 E DEERE ST
WEST POINT

NE 68788

Invoice No. : 1345747
Date Received : 06/03/2021
Date Reported : 06/04/2021

Lab Number : 6101

Results For : ALTEN LLC

Location :

Sample ID : ALT-S21-6

	ppm	EPA Method Number	Detection Limit	Reporting Limit
Nitrate, NO ₃ -N	< 0.1	353.2	0.05	0.1
Sulfate, SO ₄ -S	< 1	375.4	0.05	1
Chloride, Cl	1	325.1	0.1	1
Total Nitrogen, N	0.9	ASTM D8083	0.7	1
Ammonium, NH ₄ -N	< 0.1	350.1	0.01	0.1
Total Dissolved Solids	52	160.1	1	1

"<" - Not Detected / Below Detection Limit



South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, South Dakota 57006
Phone: 605-692-7325
E-Mail: regina.wixon@sdaglabs.com

Report Date: 2021-06-16

Final Report

Report Of Analysis

AltEn LLC-Mead-M. Tingelhoff
1344 County Road 10
Mead, NE 68041

Received: 2021-06-04
Reported: 2021-06-16
Package Id: 20210604-018

21PE004400	Water			ALT-S21-1C	2021-06-02
		<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Method</u>
Abamectin ppb		ND	3	10	LC-MS/MS
Acetamprid ppb		ND	1	3	LC-MS/MS
Azoxystrobin ppb		ND	1	2	LC-MS/MS
Brassinazole ppb		ND	2	5	LC-MS/MS
Clothianidin ppb		ND	2.5	8	LC-MS/MS
Cyproconazole ppb		ND	2	5	LC-MS/MS
Desthio-Prothioconazole ppb		ND	2	5	LC-MS/MS
Difenoconazole ppb		ND	1	4	LC-MS/MS
Dimoxystrobin ppb		ND	3	8	LC-MS/MS
Dinotefuron ppb		ND	1.2	4	LC-MS/MS
Epoxiconazole ppb		ND	1	3	LC-MS/MS
Fluconazole ppb		ND	1	4	LC-MS/MS
Fluoxastrobin ppb		ND	1	3	LC-MS/MS
Glufosinate ppb		ND	3	10	LC-MS/MS
Glyphosate ppb		ND	3	10	LC-MS/MS
Imidacloprid ppb		ND	1.2	4	LC-MS/MS
Ipconazole ppb		ND	2	6	LC-MS/MS
Isavuconazole ppb		ND	1	4	LC-MS/MS
Itraconazole ppb		ND	1	5	LC-MS/MS
Metconazole ppb		ND	2	5	LC-MS/MS
Nitenpyram ppb		ND	2.5	8	LC-MS/MS
Orysastrobin ppb		ND	2	7	LC-MS/MS
Picoxystrobin ppb		ND	1	3	LC-MS/MS
Posaconazole ppb		ND	1	5	LC-MS/MS
Propiconazole ppb		ND	2	5	LC-MS/MS
Prothioconazole ppb		ND	2	6	LC-MS/MS
Pyraclostrobin ppb		ND	3	8	LC-MS/MS
Ravuconazole ppb		ND	1	3	LC-MS/MS
Sulfonic Acid Prothioconazole ppb		ND	3	8	LC-MS/MS
Tebuconazole ppb		ND	2	5	LC-MS/MS
Tetraconazole ppb		ND	1	4	LC-MS/MS
Thiabendazole ppb		ND	2	5	LC-MS/MS
Thiacloprid ppb		ND	2	6	LC-MS/MS
Thiamethoxam ppb		ND	1	3	LC-MS/MS
Trifloxystrobin ppb		ND	3	8	LC-MS/MS
Uniconazole ppb		ND	1	3	LC-MS/MS
Voriconazole ppb		ND	1	4	LC-MS/MS

21PE004401	Water			ALT-S21-2C	2021-06-02
		<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Method</u>
Abamectin ppb		ND	3	10	LC-MS/MS
Acetamprid ppb		ND	1	3	LC-MS/MS
Azoxystrobin ppb		ND	1	2	LC-MS/MS
Brassinazole ppb		ND	2	5	LC-MS/MS
Clothianidin ppb		ND	2.5	8	LC-MS/MS
Cyproconazole ppb		ND	2	5	LC-MS/MS
Desthio-Prothioconazole ppb		ND	2	5	LC-MS/MS
Difenoconazole ppb		ND	1	4	LC-MS/MS
Dimoxystrobin ppb		ND	3	8	LC-MS/MS
Dinotefuron ppb		ND	1.2	4	LC-MS/MS
Epoxiconazole ppb		ND	1	3	LC-MS/MS
Fluconazole ppb		ND	1	4	LC-MS/MS
Fluoxastrobin ppb		ND	1	3	LC-MS/MS
Glufosinate ppb		ND	3	10	LC-MS/MS
Glyphosate ppb		ND	3	10	LC-MS/MS
Imidacloprid ppb		ND	1.2	4	LC-MS/MS
Ipconazole ppb		ND	2	6	LC-MS/MS
Isavuconazole ppb		ND	1	4	LC-MS/MS
Itraconazole ppb		ND	1	5	LC-MS/MS
Metconazole ppb		ND	2	5	LC-MS/MS
Nitenpyram ppb		ND	2.5	8	LC-MS/MS
Orysastrobin ppb		ND	2	7	LC-MS/MS
Picoxystrobin ppb		ND	1	3	LC-MS/MS
Posaconazole ppb		ND	1	5	LC-MS/MS
Propiconazole ppb		ND	2	5	LC-MS/MS
Prothioconazole ppb		ND	2	6	LC-MS/MS
Pyraclostrobin ppb		ND	3	8	LC-MS/MS
Ravuconazole ppb		ND	1	3	LC-MS/MS
Sulfonic Acid Prothioconazole ppb		ND	3	8	LC-MS/MS
Tebuconazole ppb		ND	2	5	LC-MS/MS
Tetraconazole ppb		ND	1	4	LC-MS/MS
Thiabendazole ppb		ND	2	5	LC-MS/MS
Thiacloprid ppb		ND	2	6	LC-MS/MS
Thiamethoxam ppb		ND	1	3	LC-MS/MS
Trifloxystrobin ppb		ND	3	8	LC-MS/MS
Uniconazole ppb		ND	1	3	LC-MS/MS
Voriconazole ppb		ND	1	4	LC-MS/MS

21PE004402	Water			ALT-S21-3C	2021-06-02
		<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Method</u>
Abamectin ppb		ND	3	10	LC-MS/MS
Acetamprid ppb		ND	1	3	LC-MS/MS
Azoxystrobin ppb		ND	1	2	LC-MS/MS
Brassinazole ppb		ND	2	5	LC-MS/MS
Clothianidin ppb		ND	2.5	8	LC-MS/MS
Cyproconazole ppb		ND	2	5	LC-MS/MS
Desthio-Prothioconazole ppb		ND	2	5	LC-MS/MS
Difenoconazole ppb		ND	1	4	LC-MS/MS
Dimoxystrobin ppb		ND	3	8	LC-MS/MS
Dinotefuron ppb		ND	1.2	4	LC-MS/MS
Epoxiconazole ppb		ND	1	3	LC-MS/MS
Fluconazole ppb		ND	1	4	LC-MS/MS
Fluoxastrobin ppb		ND	1	3	LC-MS/MS
Glufosinate ppb		ND	3	10	LC-MS/MS
Glyphosate ppb		ND	3	10	LC-MS/MS
Imidacloprid ppb		ND	1.2	4	LC-MS/MS
Ipconazole ppb		ND	2	6	LC-MS/MS
Isavuconazole ppb		ND	1	4	LC-MS/MS
Itraconazole ppb		ND	1	5	LC-MS/MS
Metconazole ppb		ND	2	5	LC-MS/MS
Nitenpyram ppb		ND	2.5	8	LC-MS/MS
Orysastrobin ppb		ND	2	7	LC-MS/MS
Picoxystrobin ppb		ND	1	3	LC-MS/MS
Posaconazole ppb		ND	1	5	LC-MS/MS
Propiconazole ppb		ND	2	5	LC-MS/MS
Prothioconazole ppb		ND	2	6	LC-MS/MS
Pyraclostrobin ppb		ND	3	8	LC-MS/MS
Ravuconazole ppb		ND	1	3	LC-MS/MS
Sulfonic Acid Prothioconazole ppb		ND	3	8	LC-MS/MS
Tebuconazole ppb		ND	2	5	LC-MS/MS
Tetraconazole ppb		ND	1	4	LC-MS/MS
Thiabendazole ppb		ND	2	5	LC-MS/MS
Thiacloprid ppb		ND	2	6	LC-MS/MS
Thiamethoxam ppb		ND	1	3	LC-MS/MS
Trifloxystrobin ppb		ND	3	8	LC-MS/MS
Uniconazole ppb		ND	1	3	LC-MS/MS
Voriconazole ppb		ND	1	4	LC-MS/MS

21PE004403	Water			ALT-S21-4C	2021-06-02
		<u>Result</u>	<u>LOD</u>	<u>LOQ</u>	<u>Method</u>
Abamectin ppb		ND	3	10	LC-MS/MS
Acetamprid ppb		ND	1	3	LC-MS/MS
Azoxystrobin ppb		ND	1	2	LC-MS/MS
Brassinazole ppb		ND	2	5	LC-MS/MS
Clothianidin ppb		34.0	2.5	8	LC-MS/MS
Cyproconazole ppb		ND	2	5	LC-MS/MS
Desthio-Prothioconazole ppb		ND	2	5	LC-MS/MS
Difenoconazole ppb		ND	1	4	LC-MS/MS
Dimoxystrobin ppb		ND	3	8	LC-MS/MS
Dinotefuron ppb		ND	1.2	4	LC-MS/MS
Epoxiconazole ppb		ND	1	3	LC-MS/MS
Fluconazole ppb		ND	1	4	LC-MS/MS
Fluoxastrobin ppb		ND	1	3	LC-MS/MS
Glufosinate ppb		ND	3	10	LC-MS/MS
Glyphosate ppb		ND	3	10	LC-MS/MS
Imidacloprid ppb		ND	1.2	4	LC-MS/MS
Ipconazole ppb		ND	2	6	LC-MS/MS
Isavuconazole ppb		ND	1	4	LC-MS/MS
Itraconazole ppb		ND	1	5	LC-MS/MS
Metconazole ppb		ND	2	5	LC-MS/MS
Nitenpyram ppb		ND	2.5	8	LC-MS/MS
Orysastrobin ppb		ND	2	7	LC-MS/MS
Picoxystrobin ppb		ND	1	3	LC-MS/MS
Posaconazole ppb		ND	1	5	LC-MS/MS
Propiconazole ppb		ND	2	5	LC-MS/MS
Prothioconazole ppb		ND	2	6	LC-MS/MS
Pyraclostrobin ppb		ND	3	8	LC-MS/MS
Ravuconazole ppb		ND	1	3	LC-MS/MS
Sulfonic Acid Prothioconazole ppb		ND	3	8	LC-MS/MS
Tebuconazole ppb		ND	2	5	LC-MS/MS
Tetraconazole ppb		ND	1	4	LC-MS/MS
Thiabendazole ppb		ND	2	5	LC-MS/MS
Thiacloprid ppb		ND	2	6	LC-MS/MS
Thiamethoxam ppb		19.2	1	3	LC-MS/MS
Trifloxystrobin ppb		ND	3	8	LC-MS/MS
Uniconazole ppb		ND	1	3	LC-MS/MS
Voriconazole ppb		ND	1	4	LC-MS/MS

A "J" preceding the result of analysis indicates that the result falls between the Limit of Detection (LOD) and the Limit of Quantitation (LOQ) and is only an estimate.

The LOD is the lowest quantity of an analyte that can be distinguished from the absence of the analyte.

The LOQ is the limit that an analyte can be accurately detected.

ND Not Detected

Reviewed and approved by Regina Wixon, Ph.D.

The analytical results on this report reflect what was found in the laboratory sample as it was received at the laboratory. Guidelines on taking a representative sample are available at <http://www.southdakotaagriculturallaboratories.com/sample-submission-guidelines.html>.



Also test:
Total Dissolved Solids
Total Kjeldahl Nitrogen
Sulfate

Submitted By
Nutrient Advisors
449 Deere St
West Point, NE 68788
Acct #20850

Sample Type (mark one)		
✓	Water	Wastewater
	Slurry	Potato
	Manure	Herbicide
	Fertilizer	Other

Sample Information	
Date	6/2/21

For Lab Use	Results For	Sample ID 1	Description	Sub-Type	Test
6096	AltEn, LLC	ALT-S21-1	Water	GWM	245 ↓
97	AltEn, LLC	ALT-S21-2	Water	GWM	
98	AltEn, LLC	ALT-S21-3	Water	GWM	
99	AltEn, LLC	ALT-S21-4	Water	GWM	
6100	AltEn, LLC	ALT-S21-5	Water	GWM	
01	AltEn, LLC	ALT-S21-6	Water	GWM	
		B=Acid			

Sample Sub-Types
<p>Water H = Household, I = Irrigation, L = Livestock</p> <p>Slurry H = Hog, B = Beef, P = Poultry, D = Dairy</p> <p>Manure H = Hog, B = Beef, P = Poultry, D = Dairy, C = Compost</p> <p>Fertilizer L = Liquid, D = Dry</p> <p>Wastewater, Potato, Herbicide <i>none</i></p>

Comments:

Chain of Custody			
Relinquished By	Date / Time	Received By	Date / Time
<i>[Signature]</i>	6/2/21 3:00pm	<i>[Signature]</i>	6/3/21 11:
<i>[Signature]</i>	6-7-21		

1:30 pm



Pesticide Residue Sample Submission Form

South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Name: AltEn, LLC *Sample ID: ALT-S21-1C

Address: 1344 County Road 10 City: Mead State: NE

Zip: 68041 Phone: (402) 624 - 2000 **Email: mtingelhoff@mrgkc.com

**Sample ID must be marked clearly on the sample you submit. **Results will be emailed to the provided email address.*

Billing Information: ☒ Check box if billing is the same as the customer information

Name: _____ Address: _____

City: _____ State: _____ Zip: _____

Phone: () - _____ Email: _____

Individual tests are \$162 each, unless otherwise marked. Scans are \$212 and include all of the compounds in a particular category. Acceptable samples include Vegetation, Water or Soil. Call to confirm other substrates.

Thank you for choosing South Dakota Agricultural Labs! We do add analytes to our testing regiment throughout the year. If a chemical of interest is not listed, please call us:

(605) 692-7325.

How much sample should you send?

Please send 30g of vegetation or 100g of soil to run an individual test. What does this look like? For vegetation, it would be about a quart sized bag packed full. If more than one test is required, please fill a gallon sized bag. For soil samples, please send 2 cups, if more than one test is required send 4 cups.

Analyses offered

Please turn page over to view the current pesticide analyses.

If you are interested in a screen of active ingredients, please check the box next to the **bold-faced** heading. This will include all active ingredients within the PGR screen for \$212.

Example: PGR Screen ☒

If you are interested in single analyses, please circle the active ingredients. The cost of each individual analyte is \$162 unless otherwise marked.

Example: Mesotrione

Azoles ☒

Brassinazole
 Cyproconazole
 Difenconazole
 Epoxiconazole
 Fluconazole
 Ipconazole
 Isavuconazole
 Itraconazole
 Metconazole
 Posaconazole
 Propiconazole
 Prothioconazole
 Prothioconazole
Metabolite 1
 Prothioconazole
Metabolite 2
 Ravuconazole
 Tebuconazole
 Tetraconazole
 Thiabendazole
 Uniconazole
 Voriconazole

Permethrins ☐

Bifenthrin
 Cyhalothrin 1-2
 Permethrin 1-2
 Cyhalothrin 1-4
 Cypermethrin 1-4
 Deltamethrin 1-2

IMI ☐

Imazalil (veg only)
 Imazamethabenz (veg only)
 Imazamox
 Imazapic
 Imazapyr
 Imazaquin
 Imazethapyr

Neonics ☒

Acetamiprid
 Clothianidin
 Thiacloprid
 Imidacloprid
 Thiamethoxam
 Nitenpyram
 Dinotefuran

Strobins ☒

Dimoxystrobin
 Picoxystrobin

Azoxystrobin
 Pyraclostrobin
 Orysastrobin
 Trifloxystrobin
 Fluoxastrobin

PGR ☐

2, 4-D
 2,4,5-T
 2,4,5-TP
 2,4-DB
 2,4-DP

Bentazon
 Bromacil
 Bromoxynil
 Clopyralid
 DCPA
 Dicamba
 Fluroxypyr
 MCPA
 MCPP
 Picloram
 Pyrasulfotole
 Quinclorac
 Triclopyr

Pre-Emergents ☐

Acetochlor
 Alachlor
 Atrazine
 Dimethenamid
 Metolachlor
 Metribuzin
 Pendimethalin
 Prometon
 Simazine

SU ☐

Chlorimuron
 Formasulfuron
 Mesosulfuron
 Metsulfuron
 Nicosulfuron
 Primisulfuron
 Prosulfuron
 Rimsulfuron
 Sulfometuron
 Sulfosulfuron
 Thifensulfuron
 Triasulfuron
 Tribenuron
 Triflusulfuron

Sulams ☐

Cloransulam
 Florasulam
 Flumetsulam
 Penoxsulam
 Pyroxsulam

OP Scan ☒ \$262

Glyphosate \$212
 Glufosinate \$212

Individual Active**Ingredients**

Abemectin
 Acetamiprid
 Acifluorfen
 Aldicarb
 Aldicarb sulfone
 Aldicarb sulfoxide
 Aminocyclopyrachlor
 Aminopyralid \$212
 Benzovendiflupry
 Bicyclopyrone
 Carbaryl
 Carbofuran
 Carfentrazone
 Chlorantraniliprole
 Chlorophacinone
 Chlorpyrifos-ethyl
 Chlorpyrifos-methyl
 Chlorsulfuron \$212
 Clethodim
 Clethodim sulfone
 Clethodim sulfoxide
 Clomazone
 Cyanazine
 Diazinon
 Diflufenzopyr
 Dinotefuran
 Diquat \$312
 Dithiopyr
 Diuron
 Diuron metabolite
 Ethalfuralin \$212
 Emamectin benzoate
 Fenoxaprop
 Fipronil
 Fipronil sulfide
 Fipronil sulfone
 Fluazinam
 Flucarbazone
 Fludioxonil

Flumioxazin

Fluopyram
 Fluthiacet methyl
 Flutriafol
 Fluxapyroxad
 Fluaziflop
 Fomesafen
 Halosulfuron \$212
 Hexazinone
 Indaziflam
 Indoxacarb
 Iodosulfuron \$212
 Isoxaflutole
 Lactofen
 Lincomycin
 Linuron
 Malathion
 Mandipropamid
 Mesotrione
 Methiocarb
 Methomyl
 Nitenpyram
 Oryzalin
 Oxamyl
 Oxathiapiprolin
 Oxyfluorfen
 Paclobutrazol
 Paraquat \$312
 Pinoxaden
 Prodiamine
 Propachlor
 Propanil
 Propazine
 Propoxur
 Propoxycarbazine
 Pydiflumetofen
 Pyroxasulfone
 Quizalofop
 Saflufenacil
 Sedaxane
 Sulfameturon methyl
 Sulfentrazone
 Tebuthiuron
 Tembotrione
 Terbacil
 Thienencarbazine
 Thiophanate methyl
 Topramezone \$212
 Trifuralin \$212
 Trimethoprim



**South Dakota Agricultural
Laboratories
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325**

Please feel free to add any notes or comments regarding your testing needs.

Please also send results to: records@nutrientadvisors.com



Pesticide Residue Sample Submission Form

South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Name: AltEn, LLC *Sample ID: ALT-S21-2C

Address: 1344 County Road 10 City: Mead State: NE

Zip: 68041 Phone: (402) 624 - 2000 **Email: mtingelhoff@mrgkc.com

**Sample ID must be marked clearly on the sample you submit. **Results will be emailed to the provided email address.*

Billing Information: ☒ Check box if billing is the same as the customer information

Name: _____ Address: _____

City: _____ State: _____ Zip: _____

Phone: () - _____ Email: _____

Individual tests are \$162 each, unless otherwise marked. Scans are \$212 and include all of the compounds in a particular category. Acceptable samples include Vegetation, Water or Soil. Call to confirm other substrates.

Thank you for choosing South Dakota Agricultural Labs! We do add analytes to our testing regiment throughout the year. If a chemical of interest is not listed, please call us:

(605) 692-7325.

How much sample should you send?

Please send 30g of vegetation or 100g of soil to run an individual test. What does this look like? For vegetation, it would be about a quart sized bag packed full. If more than one test is required, please fill a gallon sized bag. For soil samples, please send 2 cups, if more than one test is required send 4 cups.

Analyses offered

Please turn page over to view the current pesticide analyses.

If you are interested in a screen of active ingredients, please check the box next to the **bold-faced** heading. This will include all active ingredients within the PGR screen for \$212.

Example: PGR Screen ☒

If you are interested in single analyses, please circle the active ingredients. The cost of each individual analyte is \$162 unless otherwise marked.

Example: Mesotrione

Azoles ☒

Brassinazole
 Cyproconazole
 Difenconazole
 Epoxiconazole
 Fluconazole
 Ipconazole
 Isavuconazole
 Itraconazole
 Metconazole
 Posaconazole
 Propiconazole
 Prothioconazole
 Prothioconazole
Metabolite 1
 Prothioconazole
Metabolite 2
 Ravuconazole
 Tebuconazole
 Tetraconazole
 Thiabendazole
 Uniconazole
 Voriconazole

Permethrins ☐

Bifenthrin
 Cyhalothrin 1-2
 Permethrin 1-2
 Cyhalothrin 1-4
 Cypermethrin 1-4
 Deltamethrin 1-2

IMI ☐

Imazalil (veg only)
 Imazamethabenz (veg only)
 Imazamox
 Imazapic
 Imazapyr
 Imazaquin
 Imazethapyr

Neonics ☒

Acetamiprid
 Clothianidin
 Thiacloprid
 Imidacloprid
 Thiamethoxam
 Nitenpyram
 Dinotefuran

Strobins ☒

Dimoxystrobin
 Picoxystrobin

Azoxystrobin
 Pyraclostrobin
 Orysastrobin
 Trifloxystrobin
 Fluoxastrobin

PGR ☐

2, 4-D
 2,4,5-T
 2,4,5-TP
 2,4-DB
 2,4-DP
 Bentazon
 Bromacil
 Bromoxynil
 Clopyralid
 DCPA
 Dicamba
 Fluroxypyr
 MCPA
 MCPP
 Picloram
 Pyrasulfotole
 Quinclorac
 Triclopyr

Pre-Emergents ☐

Acetochlor
 Alachlor
 Atrazine
 Dimethenamid
 Metolachlor
 Metribuzin
 Pendimethalin
 Prometon
 Simazine

SU ☐

Chlorimuron
 Formasulfuron
 Mesosulfuron
 Metsulfuron
 Nicosulfuron
 Primisulfuron
 Prosulfuron
 Rimsulfuron
 Sulfometuron
 Sulfosulfuron
 Thifensulfuron
 Triasulfuron
 Tribenuron
 Triflusulfuron

Sulams ☐

Cloransulam
 Florasulam
 Flumetsulam
 Penoxsulam
 Pyroxsulam

OP Scan ☒ \$262

Glyphosate \$212
 Glufosinate \$212

Individual Active Ingredients

Abemectin
 Acetamiprid
 Acifluorfen
 Aldicarb
 Aldicarb sulfone
 Aldicarb sulfoxide
 Aminocyclopyrachlor
 Aminopyralid \$212
 Benzovendiflupry
 Bicyclopyrone
 Carbaryl
 Carbofuran
 Carfentrazone
 Chlorantraniliprole
 Chlorophacinone
 Chlorpyrifos-ethyl
 Chlorpyrifos-methyl
 Chlorsulfuron \$212
 Clethodim
 Clethodim sulfone
 Clethodim sulfoxide
 Clomazone
 Cyanazine
 Diazinon
 Diflufenzopyr
 Dinotefuran
 Diquat \$312
 Dithiopyr
 Diuron
 Diuron metabolite
 Ethalfuralin \$212
 Emamectin benzoate
 Fenoxaprop
 Fipronil
 Fipronil sulfide
 Fipronil sulfone
 Fluazinam
 Flucarbazone
 Fludioxonil

Flumioxazin
 Fluopyram
 Fluthiacet methyl
 Flutriafol
 Fluxapyroxad
 Fluaziflop
 Fomesafen
 Halosulfuron \$212
 Hexazinone
 Indaziflam
 Indoxacarb
 Iodosulfuron \$212
 Isoxaflutole
 Lactofen
 Lincomycin
 Linuron
 Malathion
 Mandipropamid
 Mesotrione
 Methiocarb
 Methomyl
 Nitenpyram
 Oryzalin
 Oxamyl
 Oxathiapiprolin
 Oxyfluorfen
 Paclobutrazol
 Paraquat \$312
 Pinoxaden
 Prodiamine
 Propachlor
 Propanil
 Propazine
 Propoxur
 Propoxycarbazine
 Pydiflumetofen
 Pyroxasulfone
 Quizalofop
 Saflufenacil
 Sedaxane
 Sulfameturon methyl
 Sulfentrazone
 Tebuthiuron
 Tembotrione
 Terbacil
 Thienencarbazine
 Thiophanate methyl
 Topramezone \$212
 Trifuralin \$212
 Trimethoprim



**South Dakota Agricultural
Laboratories**
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Please feel free to add any notes or comments regarding your testing needs.

Please also send results to: records@nutrientadvisors.com



Pesticide Residue Sample Submission Form

South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Name: AltEn, LLC *Sample ID: ALT-S21-3C

Address: 1344 County Road 10 City: Mead State: NE

Zip: 68041 Phone: (402) 624 - 2000 **Email: mtingelhoff@mrgkc.com

**Sample ID must be marked clearly on the sample you submit. **Results will be emailed to the provided email address.*

Billing Information: ☒ Check box if billing is the same as the customer information

Name: _____ Address: _____

City: _____ State: _____ Zip: _____

Phone: () - _____ Email: _____

Individual tests are \$162 each, unless otherwise marked. Scans are \$212 and include all of the compounds in a particular category. Acceptable samples include Vegetation, Water or Soil. Call to confirm other substrates.

Thank you for choosing South Dakota Agricultural Labs! We do add analytes to our testing regiment throughout the year. If a chemical of interest is not listed, please call us:

(605) 692-7325.

How much sample should you send?

Please send 30g of vegetation or 100g of soil to run an individual test. What does this look like? For vegetation, it would be about a quart sized bag packed full. If more than one test is required, please fill a gallon sized bag. For soil samples, please send 2 cups, if more than one test is required send 4 cups.

Analyses offered

Please turn page over to view the current pesticide analyses.

If you are interested in a screen of active ingredients, please check the box next to the **bold-faced** heading. This will include all active ingredients within the PGR screen for \$212.

Example: PGR Screen ☒

If you are interested in single analyses, please circle the active ingredients. The cost of each individual analyte is \$162 unless otherwise marked.

Example: Mesotrione

Azoles ☒

Brassinazole
Cyproconazole
Difenoconazole
Epoxiconazole
Fluconazole
Ipconazole
Isavuconazole
Itraconazole
Metconazole
Posaconazole
Propiconazole
Prothioconazole
Prothioconazole
Metabolite 1
Prothioconazole
Metabolite 2
Ravuconazole
Tebuconazole
Tetraconazole
Thiabendazole
Uniconazole
Voriconazole

Permethrins ☐

Bifenthrin
Cyhalothrin 1-2
Permethrin 1-2
Cyhalothrin 1-4
Cypermethrin 1-4
Deltamethrin 1-2

IMI ☐

Imazalil (veg only)
Imazamethabenz (veg only)
Imazamox
Imazapic
Imazapyr
Imazaquin
Imazethapyr

Neonics ☒

Acetamiprid
Clothianidin
Thiacloprid
Imidacloprid
Thiamethoxam
Nitenpyram
Dinotefuran

Strobins ☒

Dimoxystrobin
Picoxystrobin

Azoxystrobin
Pyraclostrobin
Orysastrobin
Trifloxystrobin
Fluoxastrobin

PGR ☐

2, 4-D
2,4,5-T
2,4,5-TP
2,4-DB
2,4-DP

Bentazon
Bromacil
Bromoxynil
Clopyralid
DCPA
Dicamba
Fluroxypyr
MCPA
MCPP
Picloram
Pyrasulfotole
Quinclorac
Triclopyr

Pre-Emergents ☐

Acetochlor
Alachlor
Atrazine
Dimethenamid
Metolachlor
Metribuzin
Pendimethalin
Prometon
Simazine

SU ☐

Chlorimuron
Formasulfuron
Mesosulfuron
Metsulfuron
Nicosulfuron
Primisulfuron
Prosulfuron
Rimsulfuron
Sulfometuron
Sulfosulfuron
Thifensulfuron
Triasulfuron
Tribenuron
Triflusulfuron

Sulams ☐

Cloransulam
Florasulam
Flumetsulam
Penoxsulam
Pyroxsulam

OP Scan ☒ \$262

Glyphosate \$212
Glufosinate \$212

Individual Active Ingredients

Abemectin
Acetamiprid
Acifluorfen
Aldicarb
Aldicarb sulfone
Aldicarb sulfoxide
Aminocyclopyrachlor
Aminopyralid \$212
Benzovendiflupry
Bicyclopyrone
Carbaryl
Carbofuran
Carfentrazone
Chlorantraniliprole
Chlorophacinone
Chlorpyrifos-ethyl
Chlorpyrifos-methyl
Chlorsulfuron \$212
Clethodim
Clethodim sulfone
Clethodim sulfoxide
Clomazone
Cyanazine
Diazinon
Diflufenzopyr
Dinotefuran
Diquat \$312
Dithiopyr
Diuron
Diuron metabolite
Ethalfuralin \$212
Emamectin benzoate
Fenoxaprop
Fipronil
Fipronil sulfide
Fipronil sulfone
Fluazinam
Flucarbazone
Fludioxonil

Flumioxazin

Fluopyram
Fluthiacet methyl
Flutriafol
Fluxapyroxad
Fluaziflop
Fomesafen
Halosulfuron \$212
Hexazinone
Indaziflam
Indoxacarb
Iodosulfuron \$212
Isoxaflutole
Lactofen
Lincomycin
Linuron
Malathion
Mandipropamid
Mesotrione
Methiocarb
Methomyl
Nitenpyram
Oryzalin
Oxamyl
Oxathiapiprolin
Oxyfluorfen
Paclobutrazol
Paraquat \$312
Pinoxaden
Prodiamine
Propachlor
Propanil
Propazine
Propoxur
Propoxycarbazon
Pydiflumetofen
Pyroxasulfone
Quizalofop
Saflufenacil
Sedaxane
Sulfameturon methyl
Sulfentrazone
Tebuthiuron
Tembotrione
Terbacil
Thiencarbazon
Thiophanate methyl
Topramezone \$212
Trifuralin \$212
Trimethoprim



**South Dakota Agricultural
Laboratories**
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Please feel free to add any notes or comments regarding your testing needs.

Please also send results to: records@nutrientadvisors.com



Pesticide Residue Sample Submission Form

South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Name: AltEn, LLC *Sample ID: ALT-S21-4C

Address: 1344 County Road 10 City: Mead State: NE

Zip: 68041 Phone: (402) 624 - 2000 **Email: mtingelhoff@mrgkc.com

**Sample ID must be marked clearly on the sample you submit. **Results will be emailed to the provided email address.*

Billing Information: ☒ Check box if billing is the same as the customer information

Name: _____ Address: _____

City: _____ State: _____ Zip: _____

Phone: () - _____ Email: _____

Individual tests are \$162 each, unless otherwise marked. Scans are \$212 and include all of the compounds in a particular category. Acceptable samples include Vegetation, Water or Soil. Call to confirm other substrates.

Thank you for choosing South Dakota Agricultural Labs! We do add analytes to our testing regiment throughout the year. If a chemical of interest is not listed, please call us:

(605) 692-7325.

How much sample should you send?

Please send 30g of vegetation or 100g of soil to run an individual test. What does this look like? For vegetation, it would be about a quart sized bag packed full. If more than one test is required, please fill a gallon sized bag. For soil samples, please send 2 cups, if more than one test is required send 4 cups.

Analyses offered

Please turn page over to view the current pesticide analyses.

If you are interested in a screen of active ingredients, please check the box next to the **bold-faced** heading. This will include all active ingredients within the PGR screen for \$212.

Example: PGR Screen ☒

If you are interested in single analyses, please circle the active ingredients. The cost of each individual analyte is \$162 unless otherwise marked.

Example: Mesotrione

Azoles ☒

Brassinazole
 Cyproconazole
 Difenoconazole
 Epoxiconazole
 Fluconazole
 Ipconazole
 Isavuconazole
 Itraconazole
 Metconazole
 Posaconazole
 Propiconazole
 Prothioconazole
 Prothioconazole
Metabolite 1
 Prothioconazole
Metabolite 2
 Ravuconazole
 Tebuconazole
 Tetraconazole
 Thiabendazole
 Uniconazole
 Voriconazole

Permethrins ☐

Bifenthrin
 Cyhalothrin 1-2
 Permethrin 1-2
 Cyhalothrin 1-4
 Cypermethrin 1-4
 Deltamethrin 1-2

IMI ☐

Imazalil (veg only)
 Imazamethabenz (veg only)
 Imazamox
 Imazapic
 Imazapyr
 Imazaquin
 Imazethapyr

Neonics ☒

Acetamiprid
 Clothianidin
 Thiacloprid
 Imidacloprid
 Thiamethoxam
 Nitenpyram
 Dinotefuran

Strobins ☒

Dimoxystrobin
 Picoxystrobin

Azoxystrobin
 Pyraclostrobin
 Orysastrobin
 Trifloxystrobin
 Fluoxastrobin

PGR ☐

2, 4-D
 2,4,5-T
 2,4,5-TP
 2,4-DB
 2,4-DP
 Bentazon
 Bromacil
 Bromoxynil
 Clopyralid
 DCPA
 Dicamba
 Fluroxypyr
 MCPA
 MCPP
 Picloram
 Pyrasulfotole
 Quinclorac
 Triclopyr

Pre-Emergents ☐

Acetochlor
 Alachlor
 Atrazine
 Dimethenamid
 Metolachlor
 Metribuzin
 Pendimethalin
 Prometon
 Simazine

SU ☐

Chlorimuron
 Formasulfuron
 Mesosulfuron
 Metsulfuron
 Nicosulfuron
 Primisulfuron
 Prosulfuron
 Rimsulfuron
 Sulfometuron
 Sulfosulfuron
 Thifensulfuron
 Triasulfuron
 Tribenuron
 Triflusulfuron

Sulams ☐

Cloransulam
 Florasulam
 Flumetsulam
 Penoxsulam
 Pyroxsulam

OP Scan ☒ **\$262**

Glyphosate **\$212**
 Glufosinate **\$212**

Individual Active Ingredients

Abemectin
 Acetamiprid
 Acifluorfen
 Aldicarb
 Aldicarb sulfone
 Aldicarb sulfoxide
 Aminocyclopyrachlor
 Aminopyralid **\$212**
 Benzoventdiflupry
 Bicycloporyne
 Carbaryl
 Carbofuran
 Carfentrazone
 Chlorantraniliprole
 Chlorophacinone
 Chlorpyrifos-ethyl
 Chlorpyrifos-methyl
 Chlorsulfuron **\$212**
 Clethodim
 Clethodim sulfone
 Clethodim sulfoxide
 Clomazone
 Cyanazine
 Diazinon
 Diflufenzopyr
 Dinotefuran
 Diquat **\$312**
 Dithiopyr
 Diuron
 Diuron metabolite
 Ethalfuralin **\$212**
 Emamectin benzoate
 Fenoxaprop
 Fipronil
 Fipronil sulfide
 Fipronil sulfone
 Fluazinam
 Flucarbazone
 Fludioxonil

Flumioxazin
 Fluopyram
 Fluthiacet methyl
 Flutriafol
 Fluxapyroxad
 Fluaziflop
 Fomesafen
 Halosulfuron **\$212**
 Hexazinone
 Indaziflam
 Indoxacarb
 Iodosulfuron **\$212**
 Isoxaflutole
 Lactofen
 Lincomycin
 Linuron
 Malathion
 Mandipropamid
 Mesotrione
 Methiocarb
 Methomyl
 Nitenpyram
 Oryzalin
 Oxamyl
 Oxathiapiprolin
 Oxyfluorfen
 Paclobutrazol
 Paraquat **\$312**
 Pinoxaden
 Prodiamine
 Propachlor
 Propanil
 Propazine
 Propoxur
 Propoxycarbazine
 Pydiflumetofen
 Pyroxasulfone
 Quizalofop
 Saflufenacil
 Sedaxane
 Sulfameturon methyl
 Sulfentrazone
 Tebuthiuron
 Tembotrione
 Terbacil
 Thienencarbazine
 Thiophanate methyl
 Topramezone **\$212**
 Trifluralin **\$212**
 Trimethoprim



**South Dakota Agricultural
Laboratories**
1335 Western Avenue
Brookings, SD. 57006
(605) 692-7325

Please feel free to add any notes or comments regarding your testing needs.

Please also send results to: records@nutrientadvisors.com

Chain of Custody

[illegible]

Chain of Custody

20210604-018
21PE004400-4403

20210604-018
21PE004400-004403

	Sampler	Sampler (Signature)	Sampler License #
9	Lyle Kreikemeier	<i>Lyle Kreikemeier</i>	79745

	Sample ID Number			
	ALT-S21-1C	ALT-S21-2C	ALT-S21-3C	ALT-S21-4C
Lab Number (Lab Use)				
Date	6/2/2021	6/2/2021	6/2/2021	6/2/2021
Time	9:10 AM	9:32 AM	9:57 AM	10:14 AM
Media	water	water	water	water
Number of glass containers	1	1	1	1
Brassinazole	x	x	x	x
Cyproconazole	x	x	x	x
Difenoconazole	x	x	x	x
Epoxiconazole	x	x	x	x
Fluconazole	x	x	x	x
Ispiconazole	x	x	x	x
Isavuconazole	x	x	x	x
Itraconazole	x	x	x	x
Metconazole	x	x	x	x
Posaconazole	x	x	x	x
Propiconazole	x	x	x	x
Prothioconazole	x	x	x	x
Metabolite 1	x	x	x	x
Metabolite 2	x	x	x	x
Ravuconazole	x	x	x	x
Tebuconazole	x	x	x	x
Tetraconazole	x	x	x	x
Thiabendazole	x	x	x	x
Uniconazole	x	x	x	x
Voriconazole	x	x	x	x
Acetamiprid	x	x	x	x
Clothianidin	x	x	x	x
Thiacloprid	x	x	x	x
Imidacloprid	x	x	x	x
Thiamethoxam	x	x	x	x
Nitenpyram	x	x	x	x
Dinotefuran	x	x	x	x
Dimoxystrobin	x	x	x	x
Picoxystrobin	x	x	x	x
Azoxystrobin	x	x	x	x
Pyraclostrobin	x	x	x	x
Orysastrobin	x	x	x	x
Trifloxystrobin	x	x	x	x
Fluoxastrobin	x	x	x	x
Glyphosate	x	x	x	x
Glufosinate	x	x	x	x
Abemectin	x	x	x	x
Acetamiprid	x	x	x	x
Preservation	cool	cool	cool	cool

Parameters and Lab Methods

Relinquished By: (Signature)	Date/Time
<i>Lyle Kreikemeier</i>	6/2/21 3:00PM
(Print)	Company
Lyle Kreikemeier	Nutrient Advisors
Received By: (Signature)	Date/Time
<i>Emilie Rodengen</i>	2021.06.04 3:00PM
(Print)	Company
Emilie Rodengen	SDAL

Relinquished By: (Signature)	Date/Time
(Print)	Company
Received By: (Signature)	Date/Time
(Print)	Company