CLOW VALVE CO.

Clow Valve Company
902 South 2nd Street
Oskaloosa, IA 52577
Phone: 641-673-8611

February 09, 2026

CON 12-1-1
Doc # 116215

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste and Contaminated Sites Section
6200 Park Ave, Ste 200
Des Moines, IA 50321-1371

Dear Sir:
Please accept the enclosed Beneficial Use Determination Renewal Application for Clow Valve, Oskaloosa, Iowa, prepared in accordance with IAC 567—108.5(455B, 455D).

Current Beneficial Use DNR #:	**Current Beneficial Use Determination Expiration Date:**
62-BUD-06-93	06/17/2026

Feel free to contact me if you have any questions at rob.saunders@clowvalve.com or (641) 569-6124.

Sincerely,

Rob Saunders
Environmental Director

RECEIVED
FEB 11 2026

IOWA DEPARTMENT OF NATURAL RESOURCES

BENEFICIAL USE DETERMINATION
APPLICATION FORM

Send completed applications with attached information to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste and Contaminated Sites Section
6200 Park Ave Ste 200
Des Moines IA 50321

For questions concerning this application please contact the Department at (515) 201-8272.

SECTION 1. CONTACT INFORMATION [IAC 567-108.5] Provide the name, address and telephone number for the following

Address of the site where the project will be located

Site Owner Name: Oldcastle APG Phone Number: (815) 617-2497

Site Address: P.O. Box 1053. 2245 275th Street County: Mahaska

City: Oskaloosa State: Iowa Zip Code: 52577

____ ¼ of ____ ¼ of ____ ¼ Section ____ Township ____ N Range ____ ☐ East ☐ West

(you may attach a legal description from your county assessor)

Beneficial Use Determination Applicant

Name: Rob Saunders Phone Number: (641) 569-6124

Site Address: 902 South 2nd Street

City: Oskaloosa State: Iowa Zip Code: 52577

Individual responsible for operation of the project

Name: Mark Willett Phone Number: (641) 569-6122

Site Address: 902 South 2nd St

City: Oskaloosa State: Iowa Zip Code: 52577

Professional engineer (P.E.) licensed in the state of Iowa and retained for the design of the facility, if any

Name: ____ License #: ____

Site Address: ____ Phone Number: ____

City: ____ State: ____ Zip Code: ____

Agency to be served by the project, if any

Name of Agency: ____

Responsible Official: ____ Phone Number: ____

Site Address: ____

City: ____ State: ____ Zip Code: ____

SECTION 2. FACILITY OPERATIONAL INFORMATION

A description of the solid by-product under review and its proposed use:

The spent iron foundry sand would come from the Clow Valve Company Iron Foundry located at 1607 17th Ave, Oskaloosa, Iowa 52577. The spent iron foundry sand is a green sand system using a mixture of silica sand, montmorillonite (bentonite) clay, fillers like sea coal, and water as ingredient within the molding sand. Molding sand that is removed from the foundry has already come into contact wit the high temperature molten metal causing some of the bentonite clay and resin coated cores to break down into their chemical components. New silica sand is continually being added into the foundry sand system through the addition of new cores. This addition of new core sand causes spent molding sand to be continually removed from the molding sand system. currently the spent iron foundry sand is either utilized at the Mahaska County Landfill as daily cover as specified within their permit or the spent iron foundry sand enters the landfill as waste.

Oldcastle APG proposed to make manufactured topsoil for retail sale utilizing spent foundry sand as an ingredient.

The chemical and physical characteristics of the solid by-product:

Appearance: Grey to black.
Physical State: Solid, non homogeneous particulates
Vapor Pressure: 10mm @1730 degrees Celsius (quartz)
Solubility (H2O): Insoluble
Octanol/H2O Coeff: ND
Odor: None
Melting Point: 1710 degrees Celsius (quartz)

A demonstration that there is a known or reasonably probable market for the intended use of the solid by-product:

Oldcastle APG (formerly B & B Bedding) has been in business selling bagged landscaping mulch to the landscape industry for over 20 years. Oldcastle has also produced manufactured topsoil which has been a good seller to chains such as Home Depot, Menards, Hy-Vee, Early May, Dahl's and many smaller independent stores.

A demonstration that the proposed use of the solid by-product will not adversely affect human health and environment:

The total metal concentration indicated for the spent iron foundry sand are well below the State standards for soil. Additionally, the synthetic precipitation leaching procedure (SPLP, Method 1312) concentrations associated with the spent iron foundry sand were also well below the required limits (10 X MCL Limits).
The volatile organic scan (EPA SW 846 Method 9066) also indicated no detectable volatile organic compounds. See the attached analytical results.

SECTION 3. PERMIT APPLICATION CHECKLIST

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 the Iowa Administrative Code. If an application is found by the department to be incomplete, it may be denied and returned to the applicant.

Required Documents

☒ Solid By-product Management Plan [IAC 567 Chapter 108.5(6)]
☒ Site Map
☒ Solid By-product Analytical Results [IAC 567 Chapter 108.5]

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 project 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 determination issued by the Iowa Department of Natural Resources.

Signature: Mark Wilett Date: 2-9-26

Printed Name: Mark A. Wilett Title: VP/Gm

Mahaska County, IA

Summary

Parcel ID	1131100006
Office Map	591
Property Address	
Sec/Twp/Rng	31-75-15
Brief Legal Description	NE NW (Note: Not to be used on legal documents)
Document(s)	DED: 2020-1904 (2020-07-01) DED: 2014-318 (2014-01-29) REC: 256-494
Gross Acres	0.00
Exempt Acres	N/A
Net Acres	0.00
Class	C - Commercial (Note: This is for tax purposes only. Not to be used for zoning.)
Tax District	SPRING CREEK OSKALOOSA SCH OSKA FIRE
School District	OSKALOOSA SCH

If this property is being split, please contact the Assessor's Office at 641-673-5805 for property information.
Sales data may be available below before owner of record is updated by the County Auditor.

Owner

Primary Owner (Deed Holder)	Secondary Owner	Mailing Address
Oldcastle Lawn & Garden, Inc 1130 Queeny Ave Sauget, IL 62206-1150		

Land

Lot Area 39.00 Acres :1,698,840 SF

Sales

Date	Seller	Buyer	Recording	Sale Condition - NUTC	Type	Multi Parcel	Amount
6/25/2020	ANN THORP BROUWER RENTAL PROPERTY LLC	OLDCASTLE LAWN & GARDEN, INC	2020-1904	Other with explaination	Warranty Deed		$1,725,000.00
1/29/2014	BROUWER, ANN THORP/CORNELIS	ANN THORP BROUWER RENTAL PROPERTY LLC	2014-318	No consideration	Quit Claim Deed		$0.00

⊟ Show There are other parcels involved in one or more of the above sales:

Valuation

	Classification	2025	2024	2023	2022	2021
+	Land	$58,500	$54,990	$16,620	$12,100	$12,100
+	Dwelling			$52,090	$44,850	$44,850
=	**Total Assessed Value**	**$58,500**	**$54,990**	**$68,710**	**$56,950**	**$56,950**

Taxation

		2024 Pay 2025-2026	2023 Pay 2024-2025	2022 Pay 2023-2024
	Classification	Commercial	Agriculture	Agriculture
+	Taxable Land Value	$45,787	$11,939	$11,089
+	Taxable Building Value	$0	$0	$0
+	Taxable Dwelling Value	$0	$24,140	$24,511
=	Gross Taxable Value	$45,787	$36,079	$35,600
-	Military Exemption	$0	$0	$0
-	Homestead 65+ Exemption	$0	$0	$0
=	Net Taxable Value	$45,787	$36,079	$35,600
x	Levy Rate (per $1000 of value)	27.79645	27.59829	27.55881
=	Gross Taxes Due	$1,272.71	$995.72	$981.09
-	Ag Land Credit	$0.00	($12.65)	($11.85)
-	Disabled and Senior Citizens Credit	$0.00	$0.00	$0.00
-	Family Farm Credit	$0.00	$0.00	$0.00
-	Homestead Credit	$0.00	$0.00	$0.00
-	Business Property Credit	$0.00	$0.00	$0.00
-	Prepaid Tax	$0.00	$0.00	$0.00
=	Net Taxes Due	$1,230.00	$984.00	$970.00

Tax History

Year	Due Date	Amount	Paid	Date Paid	Receipt
2024	March 2026	$615	Yes	2025-09-08	10715
	September 2025	$615	Yes	2025-09-08	
2023	March 2025	$492	Yes	2024-08-27	10691
	September 2024	$492	Yes	2024-08-27	
2022	March 2024	$485	Yes	2023-08-22	10673
	September 2023	$485	Yes	2023-08-22	
2021	March 2023	$483	Yes	2022-08-30	10645
	September 2022	$483	Yes	2022-08-30	
2020	March 2022	$426	Yes	2021-09-13	10608
	September 2021	$426	Yes	2021-09-13	
2019	March 2021	$486	Yes	2020-10-02	9948
	September 2020	$486	Yes	2020-10-02	
2018	March 2020	$477	Yes	2020-03-27	9887
	September 2019	$477	Yes	2019-09-30	

No data available for the following modules: Comp Search Report Generator, Comp Search Report Generator, Residential Dwellings, Commercial Buildings, Agricultural Buildings, Yard Extras, Tax Sale Certificate, Photos, Sketches, Board of Review Petition.

Mahaska County, IA

Summary

Parcel ID	1131100010
Office Map	591
Property Address	2737 Merino Oskaloosa
Sec/Twp/Rng	31-75-15
Brief Legal Description	SE NW (Note: Not to be used on legal documents)
Document(s)	REC: 2020-2310 (2020-07-31) DED: 2020-1904 (2020-07-01) REC: 2014-659 (2014-03-18) DED: 2014-318 (2014-01-29) REC: 256-494
Gross Acres	0.00
Exempt Acres	N/A
Net Acres	0.00
Class	C - Commercial (Note: This is for tax purposes only. Not to be used for zoning.)
Tax District	SPRING CREEK OSKALOOSA SCH OSKA FIRE
School District	OSKALOOSA SCH

If this property is being split, please contact the Assessor's Office at 641-673-5805 for property information
Sales data may be available below before owner of record is updated by the County Auditor.

Owner

Primary Owner	Secondary Owner	Mailing Address
(Deed Holder) Oldcastle Lawn & Garden, Inc 1130 Queeny Ave Sauget, IL 62206-1150		

Land

Lot Area 38.03 Acres ;1,656,587 SF

Residential Dwellings

Residential Dwelling	
Occupancy	Single-Family / Owner Occupied
Style	2 Story Frame
Architectural Style	N/A
Year Built	1925
Condition	Very Good
Grade what's this?	3-10
Brick or Stone Veneer	
Total Gross Living Area	2,144 SF
Attic Type	None:
Basement Area Type	Full
Basement Area	768
Basement Finished Area	450 - Rec. Room (Single)
Plumbing	1 Toilet Room (1/2 Bath); 1 Sink; 1 Shower Stall/Tub; 1 Cust Bath - 3 Fixt;
Fireplaces	1 Masonry:
Porches	1S Frame Enclosed (256 SF);
Decks	Wood Deck (438 SF);
Additions	1 Story Frame (32 SF);
	1 Story Frame (576 SF);
Garages	1,058 SF (23F W x 46F L) - Det Metal (Built 1963);

Agricultural Buildings

Plot #	Type	Description	Width	Length	Year Built
1	Steel Utility Building	MTL/P	28	40	1975
2	Steel Utility Building	MTL/P	0	0	1979

Yard Extras

#1 - (1) WALKWAYS Quantity=260.00, Units=Square Feet, Height=0, Built 1985
#2 - (1) Shed 0 SF, Frame Shed, High Pricing, Built 1989
#3 - (1) GARAGE ADDN W12.00 x L34.00 408 SF, Built 2003

Sales

Date	Seller	Buyer	Recording	Sale Condition - NUTC	Type	Multi Parcel	Amount
7/16/2020	ANN THORP BROUWER RENTAL PROPERTY L L C	OLDCASTLE LAWN & GARDEN, INC	2020-2310	Other with explaination	Bill of Sale		$1,541,480.00
6/25/2020	ANN THORP BROUWER RENTAL PROPERTY L L C	OLDCASTLE LAWN & GARDEN, INC	2020-1904	Normal	Warranty Deed		$1,725,000.00
3/4/2014	BROUWER, ANN THORP/CORNELIS	ANN THORP BROUWER RENTAL PROPERTY L L C	2014-659	Corporate merger or reorganization	Bill of Sale		$0.00
1/29/2014	BROUWER, ANN THORP/CORNELIS	ANN THORP BROUWER RENTAL PROPERTY L L C	2014-318	No consideration	Quit Claim Deed		$0.00
5/10/1993			256-494	Unuseable Sale - Other	Warranty Deed		$165,000.00

⊟ Show There are other parcels involved in one or more of the above sales.

Valuation

	2025	2024	2023	2022	2021
Classification	Commercial	Commercial	Agriculture	Agriculture	Agriculture
+ Land	$140,020	$131,620	$38,790	$28,080	$28,080
+ Dwelling			$225,680	$160,990	$160,990
+ Building	$230,700	$177,930	$2,730	$1,570	$1,570
= Total Assessed Value	$370,720	$309,550	$267,200	$190,640	$190,640

Taxation

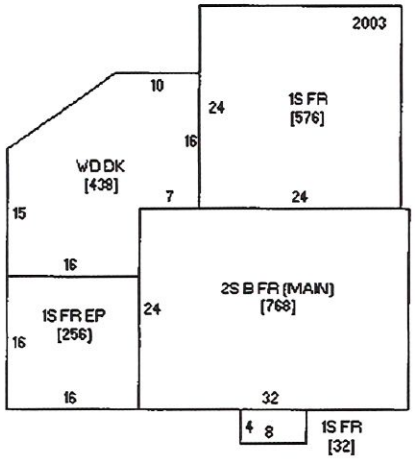
		2024 Pay 2025-2026	2023 Pay 2024-2025	2022 Pay 2023-2024
	Classification	Commercial	Agriculture	Agriculture
+	Taxable Land Value	$109,592	$27,866	$25,733
+	Taxable Building Value	$148,151	$1,961	$1,439
+	Taxable Dwelling Value	$0	$104,586	$87,981
=	Gross Taxable Value	$257,743	$134,413	$115,153
-	Military Exemption	$0	$0	$0
-	Homestead 65+ Exemption	$0	$0	$0
=	Net Taxable Value	$257,743	$134,413	$115,153
x	Levy Rate (per $1000 of value)	27.79645	27.59829	27.55881
=	Gross Taxes Due	$7,164.34	$3,709.57	$3,173.48
-	Ag Land Credit	$0.00	($29.37)	($27.50)
-	Disabled and Senior Citizens Credit	$0.00	$0.00	$0.00
-	Family Farm Credit	$0.00	$0.00	$0.00
-	Homestead Credit	$0.00	$0.00	$0.00
-	Business Property Credit	$0.00	$0.00	$0.00
-	Prepaid Tax	$0.00	$0.00	$0.00
=	Net Taxes Due	$6,928.00	$3,680.00	$3,146.00

Tax History

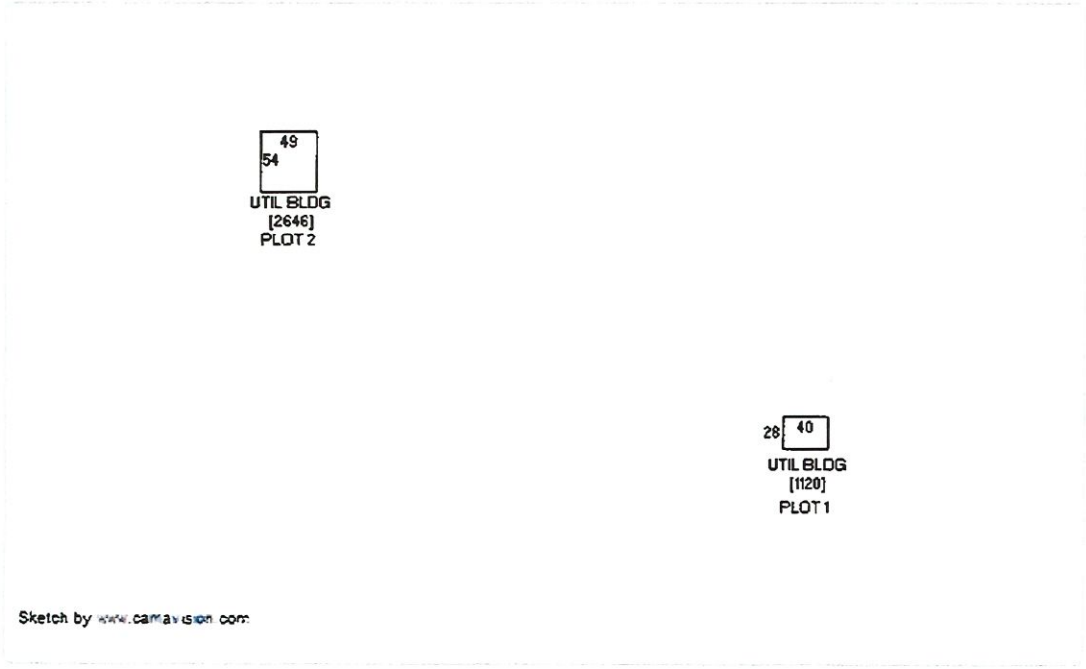
Year	Due Date	Amount	Paid	Date Paid	Receipt
2024	March 2026	$3,464	Yes	2025-09-08	10716
	September 2025	$3,464	Yes	2025-09-08	
2023	March 2025	$1,840	Yes	2024-09-17	10692
	September 2024	$1,840	Yes	2024-09-17	
2022	March 2024	$1,573	Yes	2023-08-22	10674
	September 2023	$1,573	Yes	2023-08-22	
2021	March 2023	$1,564	Yes	2022-08-30	10646
	September 2022	$1,564	Yes	2022-08-30	
2020	March 2022	$1,535	Yes	2021-09-13	10609
	September 2021	$1,535	Yes	2021-09-13	
2019	March 2021	$1,579	Yes	2020-10-02	9949
	September 2020	$1,579	Yes	2020-10-02	
2018	March 2020	$1,619	Yes	2020-03-27	9888
	September 2019	$1,619	Yes	2019-09-30	

Photos

Sketches



Sketch by www.camavision.com



No data available for the following modules: Comp Search Report Generator, Comp Search Report Generator, Commercial Buildings, Tax Sale Certificate, Board of Review Petition.

SCHNEIDER GEOSPATIAL

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Mahaska County, IA

Summary

Parcel ID	1131100016
Office Map	591
Property Address	2705 Merino Oskaloosa
Sec/Twp/Rng	31-75-15
Brief Legal Description	RES BLL ON NE NW (Note: Not to be used on legal documents)
Document(s)	DED: 2020-1904 (2020-06-25) DED: 2014-318 (2014-01-29)
Gross Acres	0.00
Exempt Acres	N/A
Net Acres	N/A
Class	R - Residential (Note: This is for tax purposes only. Not to be used for zoning.)
Tax District	SPRING CREEK OSKALOOSA SCH OSKA FIRE
School District	OSKALOOSA SCH

If this property is being split, please contact the Assessor's Office at 641-673-5805 for property information.
Sales data may be available below before owner of record is updated by the County Auditor.

Owner

Primary Owner	Secondary Owner	Mailing Address
(Deed Holder) Oldcastle Lawn & Garden, Inc 1130 Queeny Ave Sauget, IL 62206-1150		

Residential Dwellings

Residential Dwelling	
Occupancy	Single-Family / Owner Occupied
Style	1 Story Brick
Architectural Style	N/A
Year Built	1950
Condition	Below Normal
Grade what's this?	5+10
Brick or Stone Veneer	
Total Gross Living Area	728 SF
Attic Type	None:
Basement Area Type	Full
Basement Area	728
Basement Finished Area	
Plumbing	1 Standard Bath - 3 Fixt:
Fireplaces	
Porches	15 Frame Enclosed (216 SF);
Decks	
Additions	
Garages	672 SF (24F W x 28F L) - Det Metal (Built 2002);

Sales

Date	Seller	Buyer	Recording	Sale Condition - NUTC	Type	Multi Parcel	Amount
6/25/2020	ANN THORP BROUWER RENTAL PROPERTY LLC	OLDCASTLE LAWN & GARDEN, INC	2020-1904	Other with explaination	Warranty Deed		$1,725,000.00
1/29/2014	BROUWER, ANN THORP/CORNELIS	ANN THORP BROUWER RENTAL PROPERTY LLC	2014-318	No consideration	Quit Claim Deed		$0.00

⊟ Show There are other parcels involved in one or more of the above sales.

Valuation

	Classification	2025	2024
		Residential	Residential
+	Build LI	$59,220	$52,090
=	**Total Assessed Value**	**$59,220**	**$52,090**

Taxation

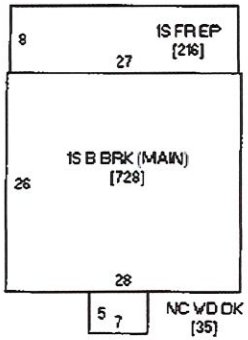
	Classification	2024 Pay 2025-2026
		Residential
+	Taxable Land Value	$0
+	Taxable Building Value	$24,707
+	Taxable Dwelling Value	$0
=	Gross Taxable Value	$24,707
-	Military Exemption	$0
-	Homestead 65+ Exemption	$0
=	Net Taxable Value	$24,707
x	Levy Rate (per $1000 of value)	27.79645
=	Gross Taxes Due	$686.77
-	Ag Land Credit	$0.00
-	Disabled and Senior Citizens Credit	$0.00
-	Family Farm Credit	$0.00
-	Homestead Credit	$0.00
-	Business Property Credit	$0.00
-	Prepaid Tax	$0.00
=	**Net Taxes Due**	$686.00

Tax History

Year	Due Date	Amount	Paid	Date Paid	Receipt
2024	March 2026	$343	Yes	2025-09-30	10718
	September 2025	$343	Yes	2025-09-30	

Photos

Sketches



Sketch by www.bsavision.com

No data available for the following modules: Comp Search Report Generator, Comp Search Report Generator, Land, Commercial Buildings, Agricultural Buildings, Yard Extras, Tax Sale Certificate, Board of Review Petition.

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Solid By-Product Management Plan RY 2025
Clow Valve, Oskaloosa
DNR ID #62-BUD-06-93
Spent Iron Foundry Sand Delivered to Oldcastle APG, Oskaloosa, Iowa, for Manufactured Topsoil
Revised: 01/07/2026

The following Solid By-Product Management Plan is prepared according to IAC 108.6(2)(a)-(c).

> *108.6(2) Solid by-product management plans. All recipients of beneficial use determinations granted pursuant to 567—108.5(455B, 455D) and coal combustion by-product and foundry sand beneficial uses listed in 567—108.5(455B, 455D) shall develop and maintain a solid by-product management plan that satisfies the following requirements:*

108.6(2)a. List the sources of the solid by-product.
The source of spent iron foundry sand is the Clow Valve Company Iron Foundry located at 1607 17th Avenue, Oskaloosa, Iowa 52577. The spent iron foundry sand is the waste sand from the molds and cores used for pouring molten ductile iron.

108.6(2)b. List procedures for periodic testing of the solid by-product to ensure that the chemical and physical composition has not changed significantly.
Spent iron foundry sand will be analyzed at least annually by a certified lab for the analytes listed on Iowa DNR Form 542-0652. (These analytes are also listed in our Beneficial Use Determination 62-BUD-06-93, Section VIII, paragraph 2). If a significant change is made to our molding process, a new analysis of the spent iron foundry sand will be conducted.

Analytical results will be promptly compared to the limits on the DNR form 542-0652. Any exceedances will be handled according to the procedure listed in our Beneficial Use Determination 62-BUD-06-93, Section VIII, paragraph 3.

108.6(2)c. Provides a description of storage procedures including:

(1) Storage locations(s).

The spent iron foundry sand will be stored at the Clow Valve Foundry located at 1607 17th Avenue East, Oskaloosa, IA 52577.

(2) Maximum anticipated inventory, including dimensions of any stockpiles.

The spent iron foundry sand destined for Oldcastle APG will be stored in a dumpster, not a stockpile, and will be limited to approximately 25,000 lbs.

(3) Run-on and run-off controls, which may include a storm water National Pollutant Discharge Elimination System (NPDES) permit.

Spent iron foundry sand is stored in dumpster under an awning, protected from precipitation. Therefore, run-on and run-off controls are not relevant. The Clow

Valve Foundry has a Storm Water Pollution Prevention Plan and best management practices are in place to manage incidental spills of spent iron foundry sand.

(4) Management practices to minimize uncontrolled dispersion of the solid by-product.

Spent iron foundry sand is stored in dumpsters under an awning. During transportation of the dumpsters off site, the product is covered with a tarp to prevent wind dispersion.

(5) Maximum storage time, not to exceed six months unless authorized in writing by the department.

Typically, the spent iron foundry sand is taken to Oldcastle APG approximately once per week. If Oldcastle APG is not taking spent foundry sand because their operations are seasonal, then the spent iron foundry sand is taken to the Mahaska County Landfill. Spent iron foundry sand destined for Oldcastle APG will not exceed the six month storage limit.

Iowa Department of Natural Resources

Beneficial Use Determination: Solid By-Product Management Plan

Analytical Testing Report

Beneficial Use ID#: 62 -BUD 06 - 93

DNR Certified Lab: Microbac Labs, Newton, Iowa

Lab Report Date: 02/27/2025

By-Product Generator: Clow Valve Company

City: Oskaloosa State: IA Zip: 52577

By-Product Name: Spent Foundry Sand

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste & Contaminated Sites Section
6200 Park Ave Ste 200
Des Moines, IA 50321

For questions concerning this report form please contact the DNR at (515) 201-8272.

ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals		
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result	
☐	Antimony	0.006 mg/L	0.06 mg/L	<0.0100 mg/L	31 mg/kg	10.7	mg/kg
☐	Arsenic	0.010 mg/L	0.10 mg/L	<0.0100 mg/L	17 mg/kg	<1.00	mg/kg
☐	Barium	2.0 mg/L	20.0 mg/L	0.0854 mg/L	15,000 mg/kg	18.9	mg/kg
☐	Beryllium	0.004 mg/L	0.04 mg/L	<0.0100 mg/L	110 mg/kg	<1.0	mg/kg
☐	Boron				16,000 mg/kg	40.1	mg/kg
☐	Cadmium	0.005 mg/L	0.05 mg/L	<0.0050 mg/L	70 mg/kg	<1.0	mg/kg
☐	Chromium	0.1 mg/L	1.0 mg/L	<0.0200 mg/L	**(Total)	<3.00	mg/kg
					(Hexavalent - VI) 210 mg/kg	<5.0	mg/kg
					(Trivalent - III) 97,000 mg/kg	<3.00	mg/kg
☐	Cobalt				23 mg/kg	<1.00	mg/kg
☐	Copper	1.3 mg/L	13.0 mg/L	0.0173 mg/L	15,000 mg/kg	<3.0	mg/kg
☐	Fluoride	4.0 mg/L	40.0 mg/L	0.4 mg/L	4,700 mg/kg	<10.0	mg/kg
☐	Lead	0.015 mg/L	0.15 mg/L	0.0154 mg/L	400 mg/kg	<5.00	mg/kg
☐	Lithium				160 mg/kg	<5	mg/kg
☐	Manganese				10,000 mg/kg	24.2	mg/kg
☐	Mercury	0.002 mg/L	0.02 mg/L	<0.00500 mg/L	23 mg/kg	<0.05	mg/kg
☐	Molybdenum				390 mg/kg	<1.0	mg/kg
☐	Nickel				1,500 mg/kg	<5.0	mg/kg
☐	Selenium	0.05 mg/L	0.5 mg/L	<0.0100 mg/L	390 mg/kg	3.0	mg/kg
☐	Silver				370 mg/kg	<1.0	mg/kg
☐	Thallium	0.002 mg/L	0.02 mg/L	<0.0050 mg/L	0.78 mg/kg	<0.5	mg/kg
☐	Vanadium				350 mg/kg	<5.00	mg/kg
☐	Zinc				23,000 mg/kg	8.0	mg/kg

*Required contaminant

**If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results.

Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory Limits

Metals					Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Arsenic	5.0 mg/L	<0.030	mg/L	☐	Benzene	0.5 mg/L	<0.050	mg/L
☐	Barium	100.0 mg/L	0.247	mg/L	☐	Carbon tetrachloride	0.5 mg/L	<0.050	mg/L
☐	Cadmium	1.0 mg/L	<0.005	mg/L	☐	Chlorobenzene	100.0 mg/L	<10.0	mg/L
☐	Chromium	5.0 mg/L	<0.010	mg/L	☐	Chloroform	6.0 mg/L	<0.600	mg/L
☐	Lead	5.0 mg/L	<0.020	mg/L	☐	1,2-Dichloroethane	0.5 mg/L	<0.050	mg/L
☐	Mercury	0.2 mg/L	<0.00050	mg/L	☐	1,1-Dichloroethylene	0.7 mg/L	<0.070	mg/L
☐	Selenium	1.0 mg/L	<0.050	mg/L	☐	Methyl ethyl ketone	200.0 mg/L	<20.0	mg/L
☐	Silver	5.0 mg/L	<0.010	mg/L	☐	Tetrachloroethylene	0.7 mg/L	<0.070	mg/L
					☐	Trichloroethylene	0.5 mg/L	<0.050	mg/L
					☐	Vinyl chloride	0.2 mg/L	<0.020	mg/L

Pesticides					Semi-Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Chlordane	0.03 mg/L		mg/L	☐	o-Cresol	200.0 mg/L	<20.0	mg/L
☐	Endrin	0.02 mg/L		mg/L	☐	m-Cresol	200.0 mg/L	<20.0	mg/L
☐	Heptachlor (and its epoxide)	0.008 mg/L		mg/L	☐	p-Cresol	200.0 mg/L	<20.0	mg/L
☐	Lindane	0.4 mg/L		mg/L	☐	Cresol	200.0 mg/L	<20.0	mg/L
☐	Methoxychlor	10.0 mg/L		mg/L	☐	1,4-Dichlorobenzene	7.5 mg/L	<0.750	mg/L
☐	Toxaphene	0.5 mg/L		mg/L	☐	2,4-Dinitrotoluene	0.13 mg/L	<0.013	mg/L
					☐	Hexachlorobenzene	0.13 mg/L	<0.013	mg/L
					☐	Hexachlorobutadiene	0.5 mg/L	<0.050	mg/L
					☐	Hexachloroethane	3.0 mg/L	<0.300	mg/L
Herbicides					☐	Nitrobenzene	2.0 mg/L	<0.200	mg/L
*	Contaminant	Regulatory Limit	Test Result		☐	Pentachlorophenol	100.0 mg/L	<10.0	mg/L
☐	2,4-D	10.0 mg/L		mg/L	☐	Pyridine	5.0 mg/L	<0.500	mg/L
☐	2,4,5-TP (Silvex)	1.0 mg/L		mg/L	☐	2,4,5-Trichlorophenol	400.0 mg/L	<40.0	mg/L
					☐	2,4,6-Trichlorophenol	2.0 mg/L	<0.200	mg/L

*Required contaminant

BY-PRODUCT GENERATOR 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.

Signature: Mark A Willett **Date:** 2-9-26

Printed Name: Mark A. Willett **Title:** VP/Gm

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IA1673

Revised Report: Amended in response to client complaint

Clow Valve Company

Dain Netland
902 S 2nd St
Oskaloosa, IA 52577

Project Name: Reuse Material

Project / PO Number: JAXT024
Received: 01/24/2025
Reported: 02/27/2025

Case Narrative

Amended Report February 27, 2025: The Cobalt result originally reported for sample 1IA1673-01 was incorrect due to analysis error. The corrected result is included in this report.

Tammy McDermott
Quality Assurance Specialist

Analytical Testing Parameters

Client Sample ID:	Metal Casting Facility		
Sample Matrix:	Bulk-Solid	**Collected By:**	Thompson, Andy
Lab Sample ID:	1IA1673-01	**Collection Date:**	01/22/2025 12:40

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3050B/EPA 6010B								
Barium, total	18.9	1.00	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Boron, total	40.1	10.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Cadmium, total	<1.0	1.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Copper, total	<3.0	3.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Lead, total	<5.00	5.00	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Lithium, total	<5	5	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Manganese, total	24.2	1.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Molybdenum, total	<1.0	1.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Nickel, total	<5.0	5.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Selenium, total	3.0	3.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Silver, total	<1.0	1.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Vanadium, total	<5.00	5.00	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
Zinc, total	8.0	3.0	mg/kg	1		01/27/25 1457	01/29/25 0216	JAR
EPA 3050B/EPA 6020A								
Antimony, total	10.7	1.00	mg/kg	10		01/27/25 1457	01/30/25 0048	ZZZ
Arsenic, total	<1.00	1.00	mg/kg	10		01/27/25 1457	01/30/25 0048	ZZZ
Beryllium, total	<1.0	1.0	mg/kg	10		01/27/25 1457	01/30/25 0048	ZZZ
Cobalt, total	<1.00	1.00	mg/kg	10		01/27/25 1457	02/26/25 0956	RVV
Thallium, total	<0.5	0.5	mg/kg	10		01/27/25 1457	01/30/25 0048	ZZZ
EPA 7471A								
Mercury, total	<0.05	0.05	mg/kg	1		01/27/25 1245	01/28/25 1345	JAR
EPA 9056A								
Fluoride	<10.0	10.0	mg/kg	1	H	02/21/25 0000	02/21/25 1429	MID

Determination of TCLP Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3010A/EPA 6010B								
Arsenic (TCLP)	<0.030	0.030	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
Barium (TCLP)	0.247	0.010	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
Cadmium (TCLP)	<0.005	0.005	mg/L	1		01/27/25 1517	01/29/25 2333	JAR

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CERTIFICATE OF ANALYSIS

1IA1673

Client Sample ID:	Metal Casting Facility		
Sample Matrix:	Bulk-Solid	**Collected By:**	Thompson, Andy
Lab Sample ID:	1IA1673-01	**Collection Date:**	01/22/2025 12:40

Determination of TCLP Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chromium (TCLP)	<0.010	0.010	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
Lead (TCLP)	<0.020	0.020	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
Selenium (TCLP)	<0.050	0.050	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
Silver (TCLP)	<0.010	0.010	mg/L	1		01/27/25 1517	01/29/25 2333	JAR
EPA 7470A								
Mercury (TCLP)	<0.00050	0.00050	mg/L	1		01/29/25 1023	01/30/25 1338	JAR

Determination of TCLP Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 1311/EPA 5030B/EPA 8260D								
Vinyl Chloride (TCLP)	<0.020	0.020	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
1,1-Dichloroethylene (TCLP)	<0.070	0.070	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
2-Butanone (MEK) (TCLP)	<20.0	20.0	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Chloroform (TCLP)	<0.600	0.600	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Carbon Tetrachloride (TCLP)	<0.050	0.050	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Benzene (TCLP)	<0.050	0.050	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
1,2-Dichloroethane (TCLP)	<0.050	0.050	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Trichloroethylene (TCLP)	<0.050	0.050	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Tetrachloroethylene (TCLP)	<0.070	0.070	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Chlorobenzene (TCLP)	<10.0	10.0	mg/L	1		02/06/25 0000	02/06/25 1505	CSM
Surrogate: Dibromofluoromethane	97.9	Limit: 57-134	% Rec	1		02/06/25 0000	02/06/25 1505	CSM
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 53-140	% Rec	1		02/06/25 0000	02/06/25 1505	CSM
Surrogate: Toluene-d8	99.0	Limit: 86-114	% Rec	1		02/06/25 0000	02/06/25 1505	CSM
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 78-121	% Rec	1		02/06/25 0000	02/06/25 1505	CSM

Determination of TCLP Semi-Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
Pyridine (TCLP)	<0.500	0.500	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
1,4-Dichlorobenzene (TCLP)	<0.750	0.750	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
o-Cresol (TCLP)	<20.0	20.0	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
m+p-Cresol (TCLP)	<20.0	20.0	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Total Cresols (TCLP)	<20.0	20.0	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Hexachloroethane (TCLP)	<0.300	0.300	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Nitrobenzene (TCLP)	<0.200	0.200	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Hexachlorobutadiene (TCLP)	<0.050	0.050	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
2,4,6-Trichlorophenol (TCLP)	<0.200	0.200	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
2,4,5-Trichlorophenol (TCLP)	<40.0	40.0	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
2,4-Dinitrotoluene (TCLP)	<0.013	0.013	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Hexachlorobenzene (TCLP)	<0.013	0.013	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Pentachlorophenol (TCLP)	<10.0	10.0	mg/L	1		01/30/25 1506	02/05/25 1103	EPP
Surrogate: 2-Fluorophenol	62.8	Limit: 10-161	% Rec	1		01/30/25 1506	02/05/25 1103	EPP
Surrogate: Phenol-d6	65.2	Limit: 10-155	% Rec	1		01/30/25 1506	02/05/25 1103	EPP
Surrogate: Nitrobenzene-d5	69.3	Limit: 18-151	% Rec	1		01/30/25 1506	02/05/25 1103	EPP

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CERTIFICATE OF ANALYSIS

1IA1673

Client Sample ID:	Metal Casting Facility		
Sample Matrix:	Bulk-Solid	**Collected By:**	Thompson, Andy
Lab Sample ID:	1IA1673-01	**Collection Date:**	01/22/2025 12:40

Determination of TCLP Semi-Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Surrogate 2-Fluorobiphenyl	63.7	Limit: 15-147	% Rec	1		01/30/25 1506	02/05/25 1103	EPP
Surrogate 2,4,6-Tribromophenol	72.5	Limit: 10-162	% Rec	1		01/30/25 1506	02/05/25 1103	EPP
Surrogate Terphenyl-d14	66.7	Limit: 35-160	% Rec	1		01/30/25 1506	02/05/25 1103	EPP

TCLP Extraction	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 1311/EPA 1311								
TCLP pH, Initial	4.9		pH	1		01/27/25 1111	01/28/25 1420	KKJ
TCLP pH Final	5.0		pH	1		01/27/25 1111	01/28/25 1420	KKJ

Determination of SPLP Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony (SPLP)	<0.0100	0.0100	mg/L	10	M2	01/28/25 1427	01/30/25 1817	RVV
Arsenic (SPLP)	<0.0100	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Barium (SPLP)	0.0854	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Beryllium (SPLP)	<0.0100	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Cadmium (SPLP)	<0.0050	0.0050	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Chromium (SPLP)	<0.0200	0.0200	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Copper (SPLP)	0.0173	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Lead (SPLP)	0.0154	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Selenium (SPLP)	<0.0100	0.0100	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
Thallium (SPLP)	<0.0050	0.0050	mg/L	10		01/28/25 1427	01/30/25 1817	RVV
EPA 7470A								
Mercury (SPLP)	<0.00500	0.00500	mg/L	1		01/29/25 1024	01/30/25 1356	JAR
EPA 9056A								
Fluoride (SPLP)	0.4	0.1	mg/L	1		02/03/25 0000	02/03/25 2258	MID

SPLP Extraction	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 1312/EPA 1312								
SPLP pH, Initial	5.0		pH	1		01/27/25 1114	01/28/25 1421	KKJ
SPLP pH, Final	10.1		pH	1		01/27/25 1114	01/28/25 1421	KKJ

Definitions

H:	Sample was analyzed past holding time.
M2:	Matrix spike recovery is below acceptance limits.
RL:	Reporting Limit
RPD:	Relative Percent Difference

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IA1673

Report Comments

Reviewed and Approved By:

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>.

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
02/27/25 10:32

CHAIN O[illegible]

MICROBAC

☐ 600 E 17th Street S
Newton, IA 50208
Phone: 641-792-8451

1 I A 1 6 7 3
Clow Valve Company
PM: Heather Murphy

et
215
1-7856

☐ 205 E Van Buren Street
Centerville, IA 52544
Phone: 641-437-7023

PRINT OR TYPE INFORMATION BELOW	REPORT TO:	BILL TO:
SAMPLER: Andy Thompson	NAME: Cindy Thompson	NAME: Dain Netland
SITE NAME: Clow Valve Co MCF	COMPANY NAME: Clow Valve Co	COMPANY NAME: Clow Valve Co
ADDRESS: 1607 17th Ave E	ADDRESS: 902 S 2nd St	ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA, 52577	CITY/ST/ZIP: Oskaloosa, IA, 52577	CITY/ST/ZIP: Oskaloosa, IA, 52577
PHONE: 641-569-6202	PHONE: 641-569-6248 FAX: email cindy.thompson@clowvalve.com	PHONE: 641-569-6093
		Keystone Quote No: _____ (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB / COMPOSITE	ANALYSES REQUIRED: TCLP Metals (8): As, Ba, Cd, Cr, Pb, Hg, Se, Ag	ANALYSES REQUIRED: SPLP Metals (13): Sb, Ba, As, Cd, Cr, Cu, Pb, Hg, Be, Se, Tl	ANALYSES REQUIRED: RCRA TCLP - EPA [illegible]; Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, [illegible], Mo, Ni, Se, Ag, Tl, Zn, F	LAB USE ONLY
Iron Sand Beneficial Reuse	1/22/25	12:40	Metal Casting Facility (Iron)	4	S	G	X	X	X	01

LAB USE ONLY: 1IA1673; 14.7 on ice °C

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	
Andy Thompson	Date 1/24/25 Time 9:46 AM	[signature]	Date 1/24/2025 Time 9:46 AM	Turn-Around: ☒ Standard ☐ Rush _____ Contact Lab Prior to Submission
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature) [signature]	Date 1-24-25 Time	Remarks: PO HAXT024 See attached page for analytical test numbers

Original - Lab Copy · Yellow - Sampler Copy

CHAIN OF CUSTO

MICROBAC

☐ 600 E 17th Street S
Newton, IA 50208
Phone: 641-792-8451

☐ 3012 Ans
Waterloo
Phone: 3

1 I A 1 6 7 3

Clow Valve Company
PM Heather Murp

05 E Van Buren Stree
Centerville, IA 52544
Phone: 641-437-7023

Page 6 of 7

PAGE 2 OF 3

PRINT OR TYPE INFORMATION BELOW

SAMPLER: Andy Thompson
SITE NAME: Clow Valve Co MCF
ADDRESS: 1607 17th Ave E
CITY/ST/ZIP: Oskaloosa, IA, 52577
PHONE: 641-569-6202

REPORT TO:

NAME: Cindy Thompson
COMPANY NAME: Clow Valve Co
ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA, 52577
PHONE: 641-569-6248 email cindy.thompson FAX @clowvalve.com

BILL TO:

NAME: Dain Wetland
COMPANY NAME: Clow Valve Co
ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA, 52577
PHONE: 641-569-6093
Keystone Quote No: (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB / COMPOSITE	ANALYSES REQUIRED: VOC Compounds, Benzene, Chlorobenzene, Chloroform, 1,2-Dichloroethane, 1,1-Dichloroethylene, Methyl Ethyl Ketone, Tetrachloroethylene, Trichloroethylene, Vinyl Chloride	LAB USE ONLY: SAMPLE CONDITION / COMMENTS	LABORATORY SAMPLE NUMBER
Iron Sand Beneficial Reuse	1/22/25	12:40	Metal Casting Facility (Iron)	4	S	G			01

LABORATORY WORK ORDER NO: I1A1673

SAMPLE TEMPERATURE UPON RECEIPT: 14.7 no ice °C

Relinquished by: (Signature)	Date	Received by: (Signature)	Date	Turn-Around:
Andy Thompson	Time 1/24/25 9:46AM		Time 1/24/2025 9:24AM	☒ Standard ☐ Rush (Contact Lab Prior to Submission)
Relinquished by: (Signature)	Date	Received for Lab by: (Signature)	Date	Remarks: PO HAXT024
	Time		Time	

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CHAIN OF CUSTO[DY]

- ☐ 600 E 17th Street S, Newton, IA 50208, Phone: 641-792-8451
- ☐ 3012 A[...], Waterlo[o], Phone:
- 205 E Van Buren Street, Centerville, IA 52544, Phone: 641-437-7023

1 I A 1 6 7 3
Clow Valve Company
PM: Heather Murphy

PAGE 3 OF 3

PRINT OR TYPE INFORMATION BELOW	REPORT TO:	BILL TO:
SAMPLER: Andy Thompson	NAME: Cindy Thompson	NAME: Dain Netland
SITE NAME: Clow Valve Co MCF	COMPANY NAME: Clow Valve Co	COMPANY NAME: Clow Valve Co
ADDRESS: 1607 17th Ave E.	ADDRESS: 902 S 2nd St	ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA, 52577	CITY/ST/ZIP: Oskaloosa, IA, 52577	CITY/ST/ZIP: Oskaloosa, IA, 52577
PHONE: 641-569-6202	PHONE: 641-569-6248 email cindy.thompson@clowvalve.com	PHONE: 641-569-6093
		Keystone Quote No: (if Applicable)

ANALYSES REQUIRED: Semi-VOCs, O-Cresol, m-Cresol, p-Cresol, Cresol, 1,4-Dichlorobenzene, 2,4-Dinitrotoluene, Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, Nitrobenzene, Pentachlorophenol, Pyridine, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB / COMPOSITE	ANALYSES REQUIRED	LAB USE ONLY
Iron Sand Beneficial Reuse	1/22/25	12:40	Metal Casting Facility (Iron)	4	S	G	✓ (all listed)	01

LAB USE ONLY: 1IA1673; 14.7 no ice °C

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	
Andy Thompson	Date 1/24/25 Time 9:41 AM	[signature]	Date 1/24/2025 Time 9:41 AM	Turn-Around: ☒ Standard ☐ Rush ___ Contact Lab Prior to Submission
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature)	Date Time	Remarks: PO HAXT024

Original - Lab Copy · Yellow - Sampler Copy

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IB1791

Clow Valve Company

Cindy Thompson
902 S 2nd St
Oskaloosa, IA 52577

Project Name: Metal Casting Facility

Project / PO Number: POHAXT027
Received: 02/28/2025
Reported: 03/05/2025

Analytical Testing Parameters

Client Sample ID: Iron Sand Beneficial Use
Sample Matrix: Bulk-Solid
Lab Sample ID: 1IB1791-01

Collected By: Thompson Andy
Collection Date: 02/27/2025 8:31

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Calculation								
Chromium trivalent	<3.00	3.00	mg/kg	1		03/03/25 0917	03/05/25 0812	JAR
EPA 3050B/EPA 6010B								
Chromium total	<3.0	3.0	mg/kg	1		03/03/25 0716	03/05/25 0812	JAR
EPA 7196A								
Chromium, hexavalent	<5.0	5.0	mg/kg	1			03/03/25 0917	AKK

Definitions

MDL: Minimum Detection Limit
RL: Reporting Limit
RPD: Relative Percent Difference

Report Comments

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
03/05/25 15:17

CH

600 E 17th
Newton, IA
Phone 64

Flow Value Company

7 Long Street
Lenexa, KS 66215
Phone 913-321-7856

205 E Van Buren Street
Centerville, IA 52544
Phone 641-437-7020

PAGE ____ OF ____

PRINT CLIENT INFORMATION BELOW

SAMPLER:
SITE NAME:
ADDRESS:
CITY/ST/ZIP:
PHONE:

REPORT TO:

NAME:
COMPANY NAME:
ADDRESS:
CITY/ST/ZIP:
PHONE: FAX:

BILL TO:

NAME:
COMPANY NAME:
ADDRESS:
CITY/ST/ZIP:
PHONE:
Keystone Quote No:

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB / COMPOSITE	ANALYSES REQUIRED						LAB USE ONLY	
													LABORATORY WORK ORDER NO. 15B[illegible]	
													SAMPLE TEMPERATURE UPON RECEIPT: 20.4 °C	LABORATORY SAMPLE NUMBER
													SAMPLE CONDITION / COMMENTS:	

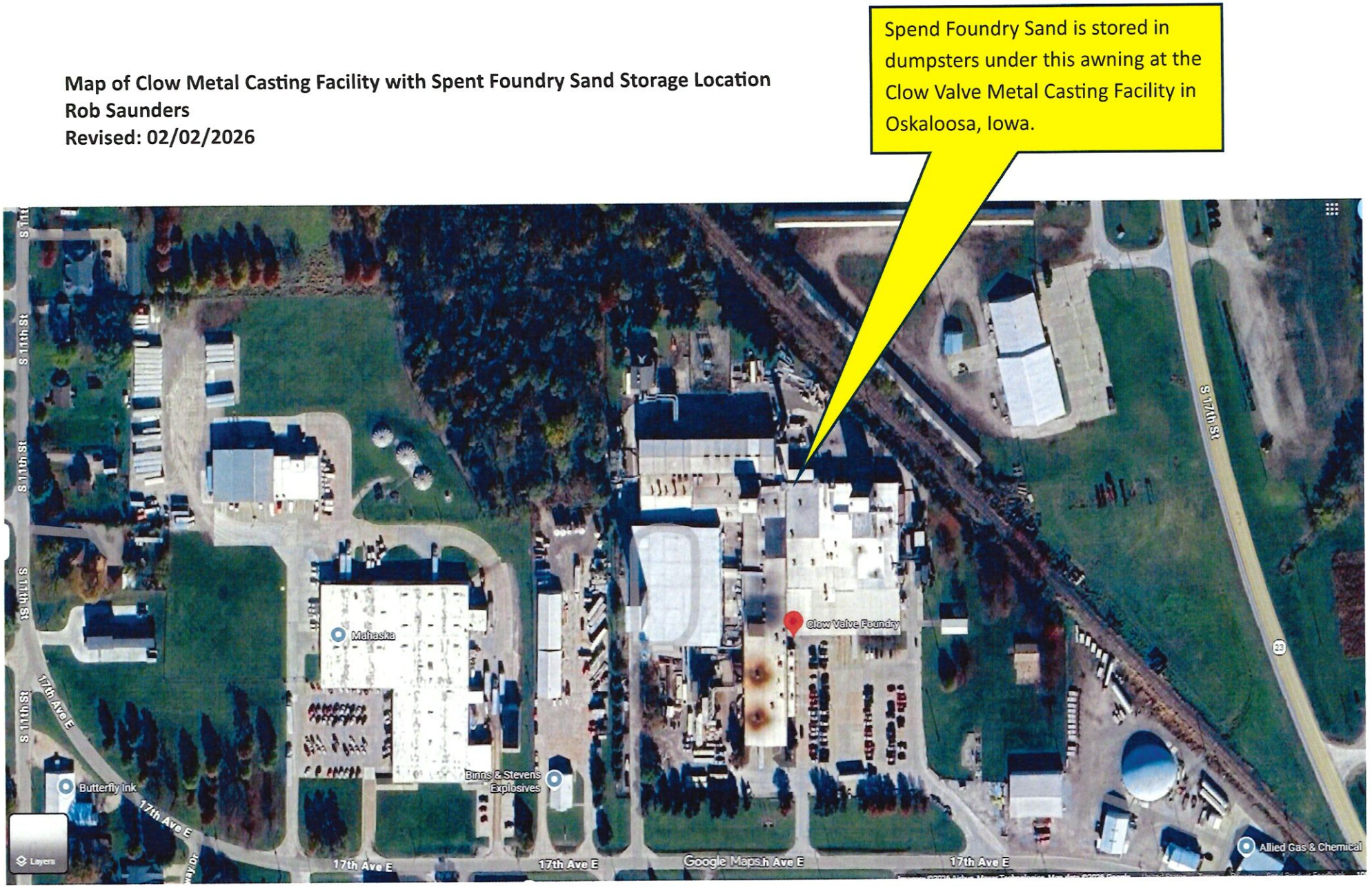
SIGN HERE

Relinquished by: (Signature)	Date 02/28/25 Time 9:30AM	Received by: (Signature)	Date Time	Turn-Around ☐ Standard ☒ Rush Contact Lab Prior to Submission
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature)	Date Time AM	Remarks:

Original - Lab Copy Yellow - Sampler Copy

Needs Results by 03/06/25 - See Heather Murphy.

Map of Clow Metal Casting Facility with Spent Foundry Sand Storage Location
Rob Saunders
Revised: 02/02/2026



Iowa Department of Natural Resources

Beneficial Use Determination: Solid By-Product Management Plan

Analytical Testing Report

Beneficial Use ID#: 62 -BUD- 06 - 93

DNR Certified Lab: Microbac Labs, Newton, Iowa

Lab Report Date: 01/30/2026

By-Product Generator: Clow Valve Company

City: Oskaloosa State: IA Zip: 52577

By-Product Name: Spent Foundry Sand before TSR

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste & Contaminated Sites Section
6200 Park Ave Ste 200
Des Moines, IA 50321

For questions concerning this report form please contact the DNR at (515) 201-8272.

ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals		
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result	
☐	Antimony	0.006 mg/L	0.06 mg/L	<0.0040 mg/L	31 mg/kg	<10.0	mg/kg
☐	Arsenic	0.010 mg/L	0.10 mg/L	<0.0080 mg/L	17 mg/kg	<10.0	mg/kg
☐	Barium	2.0 mg/L	20.0 mg/L	0.200 mg/L	15,000 mg/kg	16.7	mg/kg
☐	Beryllium	0.004 mg/L	0.04 mg/L	<0.0020 mg/L	110 mg/kg	<10.0	mg/kg
☐	Boron				16,000 mg/kg	<10.0	mg/kg
☐	Cadmium	0.005 mg/L	0.05 mg/L	<0.0008 mg/L	70 mg/kg	<1.00	mg/kg
☐	Chromium	0.1 mg/L	1.0 mg/L	0.0121 mg/L	**(Total)	<3.00	mg/kg
					(Hexavalent - VI) 210 mg/kg		mg/kg
					(Trivalent - III) 97,000 mg/kg		mg/kg
☐	Cobalt				23 mg/kg	<10.0	mg/kg
☐	Copper	1.3 mg/L	13.0 mg/L	<0.0200 mg/L	15,000 mg/kg	<3.00	mg/kg
☐	Fluoride	4.0 mg/L	40.0 mg/L	0.5 mg/L	4,700 mg/kg	<10.0	mg/kg
☐	Lead	0.015 mg/L	0.15 mg/L	0.0310 mg/L	400 mg/kg	<5.00	mg/kg
☐	Lithium				160 mg/kg	<5.00	mg/kg
☐	Manganese				10,000 mg/kg	18.3	mg/kg
☐	Mercury	0.002 mg/L	0.02 mg/L	<0.0005 mg/L	23 mg/kg	<0.0500	mg/kg
☐	Molybdenum				390 mg/kg	<1.00	mg/kg
☐	Nickel				1,500 mg/kg	<5.00	mg/kg
☐	Selenium	0.05 mg/L	0.5 mg/L	<0.0080 mg/L	390 mg/kg	3.04	mg/kg
☐	Silver				370 mg/kg	<1.00	mg/kg
☐	Thallium	0.002 mg/L	0.02 mg/L	<0.0020 mg/L	0.78 mg/kg	<0.500	mg/kg
☐	Vanadium				350 mg/kg	<5.00	mg/kg
☐	Zinc				23,000 mg/kg	5.60	mg/kg

*Required contaminant

**If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results.

Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory Limits

Metals					Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Arsenic	5.0 mg/L	<0.0300	mg/L	☐	Benzene	0.5 mg/L	<0.050	mg/L
☐	Barium	100.0 mg/L	0.189	mg/L	☐	Carbon tetrachloride	0.5 mg/L	<0.050	mg/L
☐	Cadmium	1.0 mg/L	<0.0050	mg/L	☐	Chlorobenzene	100.0 mg/L	<10.0	mg/L
☐	Chromium	5.0 mg/L	<0.0100	mg/L	☐	Chloroform	6.0 mg/L	<0.600	mg/L
☐	Lead	5.0 mg/L	<0.0200	mg/L	☐	1,2-Dichloroethane	0.5 mg/L	<0.050	mg/L
☐	Mercury	0.2 mg/L	<0.0005	mg/L	☐	1,1-Dichloroethylene	0.7 mg/L	<0.070	mg/L
☐	Selenium	1.0 mg/L	<0.0500	mg/L	☐	Methyl ethyl ketone	200.0 mg/L	<20.0	mg/L
☐	Silver	5.0 mg/L	<0.0100	mg/L	☐	Tetrachloroethylene	0.7 mg/L	<0.070	mg/L
					☐	Trichloroethylene	0.5 mg/L	<0.050	mg/L
					☐	Vinyl chloride	0.2 mg/L	<0.020	mg/L

Pesticides					Semi-Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Chlordane	0.03 mg/L		mg/L	☐	o-Cresol	200.0 mg/L	<20.0	mg/L
☐	Endrin	0.02 mg/L		mg/L	☐	m-Cresol	200.0 mg/L	<20.0	mg/L
☐	Heptachlor (and its epoxide)	0.008 mg/L		mg/L	☐	p-Cresol	200.0 mg/L	<20.0	mg/L
☐	Lindane	0.4 mg/L		mg/L	☐	Cresol	200.0 mg/L	<20.0	mg/L
☐	Methoxychlor	10.0 mg/L		mg/L	☐	1,4-Dichlorobenzene	7.5 mg/L	<0.750	mg/L
☐	Toxaphene	0.5 mg/L		mg/L	☐	2,4-Dinitrotoluene	0.13 mg/L	<0.013	mg/L
					☐	Hexachlorobenzene	0.13 mg/L	<0.013	mg/L
					☐	Hexachlorobutadiene	0.5 mg/L	<0.050	mg/L
					☐	Hexachloroethane	3.0 mg/L	<0.300	mg/L
Herbicides					☐	Nitrobenzene	2.0 mg/L	<0.200	mg/L
*	Contaminant	Regulatory Limit	Test Result		☐	Pentachlorophenol	100.0 mg/L	<10.0	mg/L
☐	2,4-D	10.0 mg/L		mg/L	☐	Pyridine	5.0 mg/L	<0.500	mg/L
☐	2,4,5-TP (Silvex)	1.0 mg/L		mg/L	☐	2,4,5-Trichlorophenol	400.0 mg/L	<40.0	mg/L
					☐	2,4,6-Trichlorophenol	2.0 mg/L	<0.200	mg/L

*Required contaminant

BY-PRODUCT GENERATOR 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.

Signature: _____ **Date:** 2-9-26

Printed Name: Mark A. Wilkie **Title:** VP/GM

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JA0880

Clow Valve Company

Dain Netland
902 S 2nd St
Oskaloosa, IA 52577

Project Name: Reuse Material

Project / PO Number: HAXT071
Received: 01/09/2026
Reported: 02/02/2026

Analytical Testing Parameters

Client Sample ID: Iron Sand Beneficial Use
Sample Matrix: Bulk-Solid
Lab Sample ID: 1JA0880-01

Collected By: Thompson, Andy
Collection Date: 01/09/2026 8:00

Metals Total by ICP	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3050B/EPA 6010B							
Lead	<5.00	5.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR

Metals TCLP by AA	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 7470A							
Mercury	<0.000500	0.000500	mg/L		01/19/26 1449	01/20/26 1327	JAR

Metals TCLP by ICP	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3010A/EPA 6010B							
Arsenic	<0.0300	0.0300	mg/L		01/19/26 1455	01/20/26 1928	JAR
Barium	**0.189**	0.0100	mg/L		01/19/26 1455	01/20/26 1928	JAR
Cadmium	<0.00500	0.00500	mg/L		01/19/26 1455	01/20/26 1928	JAR
Chromium	<0.0100	0.0100	mg/L		01/19/26 1455	01/20/26 1928	JAR
Lead	<0.0200	0.0200	mg/L		01/19/26 1455	01/20/26 1928	JAR
Selenium	<0.0500	0.0500	mg/L		01/19/26 1455	01/20/26 1928	JAR
Silver	<0.0100	0.0100	mg/L		01/19/26 1455	01/20/26 1928	JAR

Metals SPLP by AA	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 7470A							
Mercury	<0.000500	0.000500	mg/L		01/19/26 1452	01/20/26 1405	JAR

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3050B/EPA 6010B							
Barium	**16.7**	1.00	mg/kg	**M2**	01/12/26 1509	01/14/26 0341	JAR
Boron	<10.0	10.0	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Cadmium	<1.00	1.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Chromium	<3.00	3.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Copper	<3.00	3.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Lithium	<5.00	5.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Manganese	**18.3**	1.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Molybdenum	<1.00	1.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Nickel	<5.00	5.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Selenium	**3.04**	3.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Silver	<1.00	1.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Vanadium	<5.00	5.00	mg/kg		01/12/26 1509	01/14/26 0341	JAR
Zinc	**5.60**	3.00	mg/kg	**M2**	01/12/26 1509	01/14/26 0341	JAR
EPA 3050B/EPA 6020A							

CERTIFICATE OF ANALYSIS

1JA0880

Client Sample ID:	Iron Sand Beneficial Use		
Sample Matrix:	Bulk-Solid	**Collected By:**	Thompson, Andy
Lab Sample ID:	1JA0880-01	**Collection Date:**	01/09/2026 8:00

Determination of Total Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Antimony	<10.0	10.0	mg/kg		01/12/26 1509	01/14/26 1818	RVV
Arsenic	<10.0	10.0	mg/kg		01/12/26 1509	01/14/26 1818	RVV
Beryllium	<10.0	10.0	mg/kg		01/12/26 1509	01/14/26 1818	RVV
Cobalt	<10.0	10.0	mg/kg		01/12/26 1509	01/14/26 1818	RVV
Thallium	<0.500	0.500	mg/kg		01/12/26 1509	01/14/26 1818	RVV
EPA 7471A							
Mercury	<0.0500	0.0500	mg/kg		01/15/26 1023	01/15/26 1353	JAR
EPA 9056A							
Fluoride	<10.0	10.0	mg/kg			01/30/26 1141	BMS

Determination of TCLP Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 1311/EPA 5030B/EPA 8260D							
Vinyl Chloride (TCLP)	<0.020	0.020	mg/L		01/15/26 0000	01/15/26 1250	RAF
1,1-Dichloroethylene (TCLP)	<0.070	0.070	mg/L		01/15/26 0000	01/15/26 1250	RAF
2-Butanone (MEK) (TCLP)	<20.0	20.0	mg/L		01/15/26 0000	01/15/26 1250	RAF
Chloroform (TCLP)	<0.600	0.600	mg/L		01/15/26 0000	01/15/26 1250	RAF
Carbon Tetrachloride (TCLP)	<0.050	0.050	mg/L		01/15/26 0000	01/15/26 1250	RAF
Benzene (TCLP)	<0.050	0.050	mg/L		01/15/26 0000	01/15/26 1250	RAF
1,2-Dichloroethane (TCLP)	<0.050	0.050	mg/L		01/15/26 0000	01/15/26 1250	RAF
Trichloroethylene (TCLP)	<0.050	0.050	mg/L		01/15/26 0000	01/15/26 1250	RAF
Tetrachloroethylene (TCLP)	<0.070	0.070	mg/L		01/15/26 0000	01/15/26 1250	RAF
Chlorobenzene (TCLP)	<10.0	10.0	mg/L		01/15/26 0000	01/15/26 1250	RAF
Surrogate: Dibromofluoromethane	98.3	Limit: 57-128	% Rec		01/15/26 0000	01/15/26 1250	RAF
Surrogate: 1,2-Dichloroethane-d4	98.3	Limit: 49-135	% Rec		01/15/26 0000	01/15/26 1250	RAF
Surrogate: Toluene-d8	101	Limit: 82-116	% Rec		01/15/26 0000	01/15/26 1250	RAF
Surrogate: 4-Bromofluorobenzene	94.6	Limit: 77-114	% Rec		01/15/26 0000	01/15/26 1250	RAF

Determination of TCLP Semi-Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C							
Pyridine (TCLP)	<0.500	0.500	mg/L		01/20/26 1327	01/23/26 0944	EPP
1,4-Dichlorobenzene (TCLP)	<0.750	0.750	mg/L		01/20/26 1327	01/23/26 0944	EPP
o-Cresol (TCLP)	<20.0	20.0	mg/L		01/20/26 1327	01/23/26 0944	EPP
m+p-Cresol (TCLP)	<20.0	20.0	mg/L		01/20/26 1327	01/23/26 0944	EPP
Total Cresols (TCLP)	<20.0	20.0	mg/L		01/20/26 1327	01/23/26 0944	EPP
Hexachloroethane (TCLP)	<0.300	0.300	mg/L		01/20/26 1327	01/23/26 0944	EPP
Nitrobenzene (TCLP)	<0.200	0.200	mg/L		01/20/26 1327	01/23/26 0944	EPP
Hexachlorobutadiene (TCLP)	<0.050	0.050	mg/L		01/20/26 1327	01/23/26 0944	EPP
2,4,6-Trichlorophenol (TCLP)	<0.200	0.200	mg/L		01/20/26 1327	01/23/26 0944	EPP
2,4,5-Trichlorophenol (TCLP)	<40.0	40.0	mg/L		01/20/26 1327	01/23/26 0944	EPP
2,4-Dinitrotoluene (TCLP)	<0.013	0.013	mg/L		01/20/26 1327	01/23/26 0944	EPP
Hexachlorobenzene (TCLP)	<0.013	0.013	mg/L		01/20/26 1327	01/23/26 0944	EPP
Pentachlorophenol (TCLP)	<10.0	10.0	mg/L		01/20/26 1327	01/23/26 0944	EPP

CERTIFICATE OF ANALYSIS

1JA0880

Client Sample ID:	Iron Sand Beneficial Use		
Sample Matrix:	Bulk-Solid	**Collected By:**	Thompson, Andy
Lab Sample ID:	1JA0880-01	**Collection Date:**	01/09/2026 8:00

Determination of TCLP Semi-Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Surrogate: 2-Fluorophenol	77.4	Limit: 10-159	% Rec		01/20/26 1327	01/23/26 0944	EPP
Surrogate: Phenol-d6	78.0	Limit: 10-162	% Rec		01/20/26 1327	01/23/26 0944	EPP
Surrogate: Nitrobenzene-d5	92.1	Limit: 17-154	% Rec		01/20/26 1327	01/23/26 0944	EPP
Surrogate: 2-Fluorobiphenyl	72.7	Limit: 15-150	% Rec		01/20/26 1327	01/23/26 0944	EPP
Surrogate: 2,4,6-Tribromophenol	87.8	Limit: 10-156	% Rec		01/20/26 1327	01/23/26 0944	EPP
Surrogate: Terphenyl-dl4	81.9	Limit: 10-179	% Rec		01/20/26 1327	01/23/26 0944	EPP

TCLP Extraction	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 1311/EPA 1311							
pH Inital Leachate	**4.98**		pH		01/13/26 1120	01/16/26 1315	TJA
pH Final Leachate	**5.08**		pH		01/13/26 1120	01/16/26 1315	TJA

Determination of SPLP Metals	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00400	0.00400	mg/L		01/16/26 1043	01/19/26 1725	RVV
Arsenic	<0.00800	0.00800	mg/L		01/16/26 1043	01/19/26 1725	RVV
Barium	**0.200**	0.00400	mg/L		01/16/26 1043	01/19/26 1725	RVV
Beryllium	<0.00200	0.00200	mg/L		01/16/26 1043	01/19/26 1725	RVV
Cadmium	<0.000800	0.000800	mg/L		01/16/26 1043	01/19/26 1725	RVV
Chromium	**0.0121**	0.00400	mg/L		01/16/26 1043	01/19/26 1725	RVV
Copper	<0.0200	0.0200	mg/L		01/16/26 1043	01/19/26 1725	RVV
Lead	**0.0310**	0.00400	mg/L		01/16/26 1043	01/19/26 1725	RVV
Selenium	<0.00800	0.00800	mg/L		01/16/26 1043	01/19/26 1725	RVV
Thallium	<0.00200	0.00200	mg/L		01/16/26 1043	01/19/26 1725	RVV

SPLP Extraction	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 1312/EPA 1312							
pH Inital Leachate	**5.02**		pH		01/13/26 1128	01/16/26 1317	TJA
pH Final Leachate	**9.84**		pH		01/13/26 1128	01/16/26 1317	TJA

Anions SPLP by IC	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 9056A							
Fluoride	**0.5**	0.1	mg/L			01/24/26 0520	BMS

Definitions

M2: Matrix spike recovery is below acceptance limits.

RL: Reporting Limit

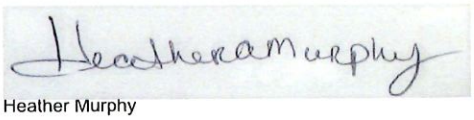
CERTIFICATE OF ANALYSIS

1JA0880

Report Comments

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>.***

Reviewed and Approved By:



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
02/02/26 16:07

CHAIN OF CUSTODY

MICROBAC®
600 E 17th Stree
Newton, IA 502(
Phone: 641-792

1 J A 0 8 8 0

Clow Valve Company
PM: Heather Murphy

357 Long Street
enexa, KS 66215
hone: 913-321-7856

☐ 205 E Van Buren Street
Centerville, IA 52544
Phone: 641-437-7023

PAGE ____ OF ____

PRINT OR TYPE INFORMATION BELOW

SAMPLER: Andy Thompson
SITE NAME: Clow Valve MCF
ADDRESS: 1607 17th Ave E
CITY/ST/ZIP: Oskaloosa IA 52577
PHONE: (641) 569-6207

REPORT TO:

NAME: Rob Saunders
COMPANY NAME: Clow Valve Co
ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA 52577
PHONE: (641) 569-6124 FAX: n/a

BILL TO:

NAME: Robo Saunders
COMPANY NAME: Clow Valve Co
ADDRESS: 902 S 2nd St
CITY/ST/ZIP: Oskaloosa, IA 52577
PHONE: (641) 569-6124
Keystone Quote No: _____ (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB / COMPOSITE	ANALYSES REQUIRED: SPLP	Total Metals	8 RCRA TCLP	VOCs	Semi VOCs				LAB USE ONLY: LABORATORY SAMPLE NUMBER
ABT542	1/9/26	8:00AM	iron sand beneficial use	4	S	G	X	X	X	X	X				01

LABORATORY WORK ORDER NO.: 1JA0880
SAMPLE TEMPERATURE UPON RECEIPT: 4.9° ice °C
SAMPLE CONDITION / COMMENTS:

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
Andy Thompson	1/9/26 9:35AM		
Relinquished by: (Signature)	Date / Time	Received for Lab by: (Signature)	Date 1/9/26 Time 9:35AM

Turn-Around: ☒ Standard ☐ Rush _____ Contact Lab Prior to Submission

Remarks: PO HAXTO71 (see attached page for analytical test numbers)

White - Original - Lab Copy · Yellow - Sampler Copy

Iowa Department of Natura

Beneficial Use Dete
Solid By-Product Management Plan
Analytical Testing Report

Beneficial Use ID#: _____ -BUD- _____ - _____

DNR Certified Lab: _____

Lab Report Date: _____

By-Product Generator: _____

City: _____ State: _____ Zip: _____

By-Product Name: _____

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:

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

For questions concerning this report form please contact the DNR at (515) 201-8272.

ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals		
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result	
☐	Antimony	0.006 mg/L	0.06 mg/L	mg/L	31 mg/kg		mg/kg
☐	Arsenic	0.010 mg/L	0.10 mg/L	mg/L	17 mg/kg		mg/kg
☐	Barium	2.0 mg/L	20.0 mg/L	mg/L	15,000 mg/kg		mg/kg
☐	Beryllium	0.004 mg/L	0.04 mg/L	mg/L	110 mg/kg		mg/kg
☐	Boron				16,000 mg/kg		mg/kg
☐	Cadmium	0.005 mg/L	0.05 mg/L	mg/L	70 mg/kg		mg/kg
☐	Chromium	0.1 mg/L	1.0 mg/L	mg/L	**(Total)		mg/kg
					(Hexavalent - VI) 210 mg/kg		mg/kg
					(Trivalent - III) 97,000 mg/kg		mg/kg
☐	Cobalt				23 mg/kg		mg/kg
☐	Copper	1.3 mg/L	13.0 mg/L	mg/L	15,000 mg/kg		mg/kg
☐	Fluoride	4.0 mg/L	40.0 mg/L	mg/L	4,700 mg/kg		mg/kg
☐	Lead	0.015 mg/L	0.15 mg/L	mg/L	400 mg/kg		mg/kg
☐	Lithium				160 mg/kg		mg/kg
☐	Manganese				10,000 mg/kg		mg/kg
☐	Mercury	0.002 mg/L	0.02 mg/L	mg/L	23 mg/kg		mg/kg
☐	Molybdenum				390 mg/kg		mg/kg
☐	Nickel				1,500 mg/kg		mg/kg
☐	Selenium	0.05 mg/L	0.5 mg/L	mg/L	390 mg/kg		mg/kg
☐	Silver				370 mg/kg		mg/kg
☐	Thallium	0.002 mg/L	0.02 mg/L	mg/L	0.78 mg/kg		mg/kg
☐	Vanadium				350 mg/kg		mg/kg
☐	Zinc				23,000 mg/kg		mg/kg

*Required contaminant

**If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results.

Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory I

Metals					Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Arsenic	5.0 mg/L		mg/L	☐	Benzene	0.5 mg/L		mg/L
☐	Barium	100.0 mg/L		mg/L	☐	Carbon tetrachloride	0.5 mg/L		mg/L
☐	Cadmium	1.0 mg/L		mg/L	☐	Chlorobenzene	100.0 mg/L		mg/L
☐	Chromium	5.0 mg/L		mg/L	☐	Chloroform	6.0 mg/L		mg/L
☐	Lead	5.0 mg/L		mg/L	☐	1,2-Dichloroethane	0.5 mg/L		mg/L
☐	Mercury	0.2 mg/L		mg/L	☐	1,1-Dichloroethylene	0.7 mg/L		mg/L
☐	Selenium	1.0 mg/L		mg/L	☐	Methyl ethyl ketone	200.0 mg/L		mg/L
☐	Silver	5.0 mg/L		mg/L	☐	Tetrachloroethylene	0.7 mg/L		mg/L
					☐	Trichloroethylene	0.5 mg/L		mg/L
					☐	Vinyl chloride	0.2 mg/L		mg/L
Pesticides					**Semi-Volatile Organic Compounds**				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Chlordane	0.03 mg/L		mg/L	☐	o-Cresol	200.0 mg/L		mg/L
☐	Endrin	0.02 mg/L		mg/L	☐	m-Cresol	200.0 mg/L		mg/L
☐	Heptachlor (and its epoxide)	0.008 mg/L		mg/L	☐	p-Cresol	200.0 mg/L		mg/L
☐	Lindane	0.4 mg/L		mg/L	☐	Cresol	200.0 mg/L		mg/L
☐	Methoxychlor	10.0 mg/L		mg/L	☐	1,4-Dichlorobenzene	7.5 mg/L		mg/L
☐	Toxaphene	0.5 mg/L		mg/L	☐	2,4-Dinitrotoluene	0.13 mg/L		mg/L
					☐	Hexachlorobenzene	0.13 mg/L		mg/L
					☐	Hexachlorobutadiene	0.5 mg/L		mg/L
					☐	Hexachloroethane	3.0 mg/L		mg/L
Herbicides					☐	Nitrobenzene	2.0 mg/L		mg/L
*	Contaminant	Regulatory Limit	Test Result		☐	Pentachlorophenol	100.0 mg/L		mg/L
☐	2,4-D	10.0 mg/L		mg/L	☐	Pyridine	5.0 mg/L		mg/L
☐	2,4,5-TP (Silvex)	1.0 mg/L		mg/L	☐	2,4,5-Trichlorophenol	400.0 mg/L		mg/L
					☐	2,4,6-Trichlorophenol	2.0 mg/L		mg/L

*Required contaminant

BY-PRODUCT GENERATOR 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.

Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____