TO

MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102



MAR 0 9 2023

MONTANA BOARD OF CIL & GAS CONSERVATION * BULLINGS

	or ⊠ Service Company				
Full name	of the Owner, Operator, or Se	ervice Company	Calfrac Well S	ervices Corp.	
Address	717 17 th St., Suite 1445	Denver	со	80202	303.293.2931
	(Address)	(City)	(State)	(Zip Code)	(Telephone Number)
fracturing registry nu as defined of the com	, MCA requires that an owner, fluid. This must include the charmber of the ingredients, including 50-78-102, MCA, the production of the fracturing fluid 30-14-402, MCA.	emical compound n ding any hazardous ct name, and the ty	ame and the ch components lis pe of additive u	nemical abstract sted on a mater used. In limited	ts service (CAS) ial safety data sheet situation the identity
l am reque	esting that the identity of a frac	cturing fluid compo	nent qualify for	non-disclosure	as a trade secret.
Chemical F	amily associated with the Che	mical Constituent	Petroleum D	istillates	
In order to understand Trade Secr	amily associated with the Che claim that the identity of the f d that I must provide specific in et Guidelines. I have attached the Guidelines.	fracturing fluid com nformation regardir	ponent is entitl	ed to protection	th in the MBOGC
In order to understand Trade Secr	claim that the identity of the f d that I must provide specific ir et Guidelines. I have attached	fracturing fluid com nformation regardir	ponent is entitling each of the quing forth inform	ed to protection	th in the MBOGC
In order to understand Trade Secr set forth in	claim that the identity of the f d that I must provide specific ir et Guidelines. I have attached	fracturing fluid comnformation regarding separate pages sett CERTIFICA Tjury that this requ	ponent is entitling each of the quing forth informates	ed to protection westions set for mation in respor	rth in the MBOGC nse to the questions
In order to understand Trade Secr set forth in	claim that the identity of the f d that I must provide specific in et Guidelines. I have attached the Guidelines.	fracturing fluid comnformation regarding separate pages setted. CERTIFICATION that this required with the companies of the c	ponent is entitling each of the quing forth information of the	ed to protection westions set for mation in respor	th in the MBOGC nse to the questions tion have been

RECEIVED

MAR 0 9 2023

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

TO MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

Classification Operato	on of Requesting Party r Service Company	☐ Other – Specify			
	of the Owner, Operator, or		Calfrac Well S	Services Corp.	
Address	717 17 th St., Suite 1445	Denver	со	80202	303.293.2931
	(Address)	(City)	(State)	(Zip Code)	(Telephone Number)
fracturing fl registry nur as defined i of the comp	MCA requires that an owner laid. This must include the on the ingredients, income 50-78-102, MCA, the proponents of the fracturing fluor-14-402, MCA.	chemical compound n luding any hazardous duct name, and the ty	ame and the ch components list pe of additive	hemical abstract sted on a mater used. In limited	s service (CAS) ial safety data sheet situation the identit
	ating that the identity of a formally associated with the C		nent qualify for CalV:SC & Glycol		as a trade secret.
understand Trade Secre	claim that the identity of the that I must provide specified of Guidelines. I have attache the Guidelines.	c information regardir	ng each of the o	questions set for	rth in the MBOGC
		CERTIFICA	ATE		
	clare under penalties of p by me and to the best of			•	tion have been
		Signaturo	En	1	
				vironmental Er	ngineer
FOR STAFF	USE ONLY: D: Yes □No	Print nam	e and title Admin	istratur	3 K/23

TO

RECEIVED

MAR 0 9 2023

MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

run name	of the Owner, Operator, or	Service Company	Calfrac Well S	ervices Corp.	
Address	717 17 th St., Suite 1445	Denver	СО	80202	303.293.2931
	(Address)	(City)	(State)	(Zip Code)	(Telephone Number)
fracturing tregistry nu as defined of the com	, MCA requires that an owner fluid. This must include the comment of the ingredients, include the process of the fracturing fluid on the process of the proc	chemical compound n luding any hazardous duct name, and the ty	ame and the ch components lis se of additive u	nemical abstract sted on a materi used. In limited	s service (CAS) ial safety data sheet situation the identit
l am reque	esting that the identity of a fi		ent qualify for CalVisc Proprietary	6621	as a trade secret.
In order to	claim that the identity of th	e fracturing fluid com	oonent is entit	led to protectio	n as a trade secret
understand Trade Secre	d that I must provide specific et Guidelines. I have attache o the Guidelines.	information regardir	g each of the c	juestions set for	th in the MBOGC
understand Trade Secre	et Guidelines. I have attache	information regardir	g each of the c ing forth inforr	juestions set for	th in the MBOGC
understand Trade Secre set forth in	et Guidelines. I have attache	c information regardined separate pages sett CERTIFICA Derjury that this requ	g each of the c ing forth inforr TE est and suppo	uestions set for nation in respor	rth in the MBOGC nse to the questions

(SUBMIT IN DUPLICATE)

RECEIVED

MAR 0 9 2003

MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

TO

MONTANA BOARD OF O.L. & GAS CONSERVATION - BULLIO

Classificati	ion of Requesting Party or ⊠ Service Company	☐ Other – Specify			
Full name	of the Owner, Operator, or Se	rvice Company	Calfrac Well S	Services Corp.	
Address	717 17 th St., Suite 1445	Denver	СО	80202	303.293.2931
	(Address)	(City)	(State)	(Zip Code)	(Telephone Number)
fracturing registry nu as defined of the com	, MCA requires that an owner, fluid. This must include the chaumber of the ingredients, including 50-78-102, MCA, the produnponents of the fracturing fluid 30-14-402, MCA.	emical compound r ding any hazardous ct name, and the ty	name and the cl components list proper of additive	hemical abstract sted on a materi used. In limited :	s service (CAS) al safety data sheet situation the identity
	esting that the identity of a frac		nent qualify for CLVisc & Urea Deriva	1586	as a trade secret.
understan Trade Secr	o claim that the identity of the d that I must provide specific in ret Guidelines. I have attached n the Guidelines.	nformation regardi	ng each of the o	questions set for	th in the MBOGC
		CERTIFICA	ATE		
	eclare under penalties of per by me and to the best of m			•	tion have been
				yironmental Er	ngineer
APPROVE		Signature	Admi	inist No	3/15/23 Date

RECEIVED

MAR 0 9 2023

TO MONTANA BOARD OF OIL AND GAS CONSERVATION **2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102**

MONTANA BOARD OF GIL & GAS CONSERVATION • BILLINGS

ruii name (of the Owner, Operator, or S	ervice Company	Calfrac Well S	Services Corp.	
Address	717 17 th St., Suite 1445	Denver	СО	80202	303.293.2931
	(Address)	(City)	(State)	(Zip Code)	(Telephone Number
fracturing for registry nur as defined in of the comp	MCA requires that an owner luid. This must include the charber of the ingredients, inclunded the production of the fracturing fluito-14-402, MCA.	nemical compound nuding any hazardous uding any hazardous uct name, and the ty	ame and the cl components li pe of additive	hemical abstract sted on a mater used. In limited	es service (CAS) ial safety data shed situation the ident
	sting that the identity of a fra		nent qualify for Cへしい (Proprietary	G21	as a trade secret.
	claim that the identity of the that I must provide specific				
Trade Secre	et Guidelines. I have attached the Guidelines.				
Trade Secre	t Guidelines. I have attached		ing forth infor		
Trade Secre set forth in	t Guidelines. I have attached	l separate pages sett	ing forth infor	mation in respoi	nse to the question
Trade Secre set forth in I dec	et Guidelines. I have attached the Guidelines.	CERTIFICA Cerjury that this requ	ting forth informations ATE Juest and supp	mation in respo orting informa	nse to the question
Trade Secre set forth in I dec	et Guidelines. I have attached the Guidelines. clare under penalties of pe	CERTIFICA erjury that this requ ny knowledge are t Signature Samu	ATE uest and supp true, correct a	mation in respo orting informa	nse to the question
Trade Secre set forth in I dec examined	et Guidelines. I have attached the Guidelines. clare under penalties of pe	CERTIFICA erjury that this requ ny knowledge are t Signature Samu	ATE Juest and supported a	orting informa	nse to the questio

Calvisc 6621

TO

MONTANA BOARD OF OIL AND GAS CONSERVATION 2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

RECEIVED

MAR 0 9 2023

MONTANA BOARD OF CIL & GAS CONSERVATION • BILLINGS

Address 28420 Hardy Toll Road, Unit 100 Spring TX 77373 (Address) (City) (State) (Zip Code) 82-10-603, MCA requires that an owner, operator, or service company provide the confracturing fluid. This must include the chemical compound name and the chemical absorber registry number of the ingredients, including any hazardous components listed on a mass defined in 50-78-102, MCA, the product name, and the type of additive used. In lime of the components of the fracturing fluid may be exempt from public disclosure as a "criteria in 30-14-402, MCA. I am requesting that the identity of a fracturing fluid component qualify for non-disclosure and the type of additive used. In lime of the components of the fracturing fluid may be exempt from public disclosure as a "criteria in 30-14-402, MCA.	(Telephone Number) mplete disclosure of tracts service (CAS) aterial safety data sheet ited situation the identit trade secret" under the
82-10-603, MCA requires that an owner, operator, or service company provide the confracturing fluid. This must include the chemical compound name and the chemical absoration registry number of the ingredients, including any hazardous components listed on a mass defined in 50-78-102, MCA, the product name, and the type of additive used. In lim of the components of the fracturing fluid may be exempt from public disclosure as a "criteria in 30-14-402, MCA.	mplete disclosure of tracts service (CAS) aterial safety data sheet ited situation the identit trade secret" under the
fracturing fluid. This must include the chemical compound name and the chemical absorbusing registry number of the ingredients, including any hazardous components listed on a mass defined in 50-78-102, MCA, the product name, and the type of additive used. In lim of the components of the fracturing fluid may be exempt from public disclosure as a "criteria in 30-14-402, MCA. I am requesting that the identity of a fracturing fluid component qualify for non-disclosure and the chemical absorbusing the components listed on a mass defined in 50-78-102, MCA.	tracts service (CAS) aterial safety data sheet ited situation the identit trade secret" under the
	sure as a trade secret.
Opposite A sid Call	
Chemical Family associated with the Chemical Constituent Organic Acid Salt	
In order to claim that the identity of the fracturing fluid component is entitled to prote understand that I must provide specific information regarding each of the questions so Trade Secret Guidelines. I have attached separate pages setting forth information in reset forth in the Guidelines.	et forth in the MBOGC
CERTIFICATE	
I declare under penalties of perjury that this request and supporting info examined by me and to the best of my knowledge are true, correct and comple	
Signature Samuel C. Reed, P.G., CHMM	
Print name and title FOR STAFF USE ONLY:	



MAR 0 9 2003

GAS CONSERVATION . BULLET

March 8, 2023

REDACTED VERSION

Mr. Benjamin Jones, P.E. Montana Board of Oil & Gas Conservation 2535 St. Johns Avenue Billings, MT 59102

RE: Request for trade secret and confidential commercial information (CCI) protection for Calfrac Well Services Corp. products CALVISCTM 6621 & DYNASCALE 3515

Dear Mr. Jones:

After an internal review, Calfrac respectfully requests the following updates to previously submitted requests:

- Due to a name-change from DWP-621 to CalVisc™ 6621, Calfrac requests approval of this newly named product
- Due to an unintentional typographic error in the initial/renewal requests, Calfrae requests approval for DynaScaleTM 3515.

Calfrac Well Services (Calfrac) is submitting the enclosed request for trade secret using "MBOGC Trade Secret/CCI Guidelines" regarding the chemical compound name and Chemical Abstract Services (CAS) numbers (collectively, "Chemical Identity") of certain ingredients in the friction reducer and antiscalant (aka CALVISCTM 6621 & DYNASCALE 3515) that Calfrac intends to use in fracturing operations in Montana.

Calfrac believes that the Chemical Identities for its CalVisc[™] 6621 & DYNASCALE 3515 are entitled to protection as trade secret and CCI as the disclosure of CAS numbers and chemical compound names of certain ingredients in Calfrac proprietary products would allow competitors to determine the ingredients of Calfrac products that would result in a loss of economic value and competitive harm to Calfrac.

Accordingly, this letter and its enclosures are submitted to request that Chemical Identity information of CalViscTM 6621 & DYNASCALE 3515 be exempt from disclosure by the MBOGC on the basis that the information is a trade secret as defined under 30-14-402 MCA.

Attachment I hereto provides the information required to be submitted in accordance with the requirements of the MBOGC Trade Secret Guidelines, and provides the justification for the exemption from disclosure as trade secret pursuant to 82-10-604 MCA.

Attachment II hereto provides public disclosure containing the information for which we request trade secret and CCI protection.

We appreciate your consideration for this request and should you require additional information or have any questions, please do not hesitate to contact me at (346) 946-8027 or by email at sreed@calfrac.com.

Respectfully,

Calfrac Well Services Corporation

Samuel Reed

Environmental Engineer







MAR 0 9 2003

Attachment I – Justification for Trade Secret

- To your knowledge, has the identity of the ingredient, its concentration, or both, as appropriate, been publicly disclosed:
 - i. Pursuant to any federal, state, or local law or regulation? The identity of the ingredients, their combinations, and their use in a friction reducer and an antiscalant product has not been publicly disclosed by Calfrac or, to Calfrac's knowledge, anyone else, pursuant to any federal, state, or local law or regulation.
 - ii. In professional trade publications? The identity of the ingredients and their collective use in a friction reducer and an antiscalant product has not been publicly disclosed by Calfrac or, to Calfrac's knowledge, anyone else, in professional trade publications.
 - iii. Through any other media or publications available to the public or your competitors? In order to make the above determinations, Calfrac used the CAS numbers of the substances in this product to search the FracFocus database and reviewed multiple entries per page of results. As previously mentioned, Calfrac found all the CAS numbers associated with various product usages. Calfrac reviewed compositions of other known friction reducers and antiscalants and found that the products contain the hazardous components for which trade secret protection is sought. However, their use in CALVISCTM 6621 & DYNASCALE 3515 or with this combination of ingredients has not been identified. Calfrac then performed a combined literature search using the CAS numbers and the terms "friction reducer" and "antiscalant". Even though documents existed with the combination search terms for the hazardous trade secret components, there was no public document that identified "friction reducer" and "antiscalant" with the CAS numbers for which confidentiality is sought. Calfrac was not able to locate any documentation that mentions all ingredients together for any purpose.
- 2. To what extent is the identity of the ingredient (including its use in the additive) known within the company and what steps have you taken to safeguard the information? Please describe in detail how this information is housed in your company and what steps your employees, officers, agents, and directors take to prevent disclosure of the information to parties outside of your company.
 - Calfrac has in place numerous safeguards and controls to protect the confidentiality of its product formulations including, but not limited to, safe storage locations for information on proprietary products; marking all hard copies of records containing proprietary Chemical Identity information as confidential and trade secret; limiting access to proprietary Chemical Identity information internally on a need-to-know basis only; and requiring confidentiality agreements when disclosing the proprietary Chemical Identity information or product samples to third-parties. Electronic copies of records containing proprietary Chemical Identity information are protected and maintained on a secure internal network. Employees provided with access to proprietary Chemical Identity information are informed of the value and







importance of protecting it. In addition to the Confidential Information and Inventions

Agreement signed by all employees, employees with access or exposure to proprietary, BOARD OF CALE

Chemical Identity information are required to sign an acknowledgement of confidentiality income access to the confidentiality information are required to sign an acknowledgement of confidentiality information are required to sign an acknowledgement of confidentiality information are required to sign an acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information are required to sign and acknowledgement of confidentiality information and acknowledgement of confidentiality information and confidentiality information and confidentiality information are required to sign and confidentiality information and confidentiality information are required to sign and confidential

- Has any other regulatory body (federal, state, tribal, or local) determined the ingredient identity (including its use in the additive) is not entitled to protection from public disclosure as a trade secret or confidential commercial information? If so, provide a copy of the agency's determination, along with any explanation as to why the Commission should not make a similar determination. Provide any other information concerning prior requests for confidentiality and/or regulatory body determinations you believe is relevant to the Commission's determination.
 - No regulatory body (federal, state, tribal, or local) has determined that Calfrac's trade secret or
 confidential information is not protected from public disclosure. These products have been used
 throughout Calfrac's United States operations and have been provided protection from
 disclosure throughout those jurisdictions.
- 4. How is the identity of the ingredient commercially valuable to the company? In answering this question, please describe why the use of the ingredient in the type of additive is not common knowledge in the industry, including any novel or unusual aspects of the chemical or the use of the chemical in this application.
 - Calfrac has expended a significant amount of effort and money to develop the proprietary
 product and it is the result of years of extensive research, development testing and oilfield
 application to customers' wells. Developing products requires an understanding of the geology,
 the physics of temperatures and pressures and the chemistry of the stimulation fluids. Calfrac
 devotes significant research and development resources to understand geology, physics of
 temperatures and pressures, fluid systems for unique geological formations and to develop new
 and innovative products to more effectively stimulate reservoirs to increase production of oil
 and gas.
 - For example, CalVisc™ 6621 & DYNASCALE 3515 contain components that would not normally be considered or expected as part of a commercial friction reducer or antiscalant formulation. However, the product has proven to be highly successful over many years of commercial use, providing Calfrac with superior operations and technical differentiation. Hence Calfrac feels that dissemination of this commercially valuable knowhow would be highly detrimental to its interest, therefore an application for trade secret protection is requested.
 - If the Chemical Identities of this product were to be available to our competitors or customers, then they could replicate our products and Calfrac would lose its competitive advantage in Montana and throughout the world gained through considerable expense and research.







- 5. Describe the ease or difficulty with which the formula for the additive product could bentana Board of the determined from public disclosure of the ingredient identity. Specifically, explain why the use various BILLINGS of the "systems approach" format would not adequately protect your proprietary interest.
 - If the proprietary Chemical Identity information were disclosed, then it would not be difficult for Calfrac competitors to "reverse engineer" and determine the proprietary formula of the product.
 - There are a limited number of active ingredients and the revealing proprietary Chemical Identity information, even when presented in a systems approach format, would provide others with the active ingredients in the products allowing others to engineer our product for sale and/or use, and thereby, undermining Calfrac competitive advantage. Further, a systems approach may undermine our ability to patent such formulas.







MAR 0 9 2023

Attachment II

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

REDACTED Chemical Information for CalVisc™ 6621 & DYNASCALE 3515

Ca	lVisc™ 6621	
COMPONENT NAME	CAS#	CONCENTRATION
Water	7732-18-5	37%
Organic acid salt	PROPRIETARY	PROPRIETARY
Petroleum distillates	PROPRIETARY	PROPRIETARY
Glycol	PROPRIETARY	PROPRIETARY
Proprietary surfactant	PROPRIETARY	PROPRIETARY
Urea derivative	PROPRIETARY	PROPRIETARY
Proprietary Amide	PROPRIETARY	PROPRIETARY

DYNA	SCALE 3515	
COMPONENT NAME	CAS#	CONCENTRATION
Methanol	67-56-1	45%
Organic acid salt	Proprietary	Proprietary
Water	7732-18-5	40%



