Inspection Report For Well: UT20736 - 04415

U.S. Environmental Protection Agency
Underground Injection Control Program, 8ENF-T
999 18th Street, Suite 300, Denver, CO 80202-2466

This form was printed on 9/24/2013

INSPECTOR(S): Lead: Roberts, Sarah — Date: ~~10~~ 12/11/2013

Others: Ajayi, Christopher — Time: 9:50 (am) / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Steinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 07-09		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 12/31/2002		
Oil Field:	Antelope Creek (Duchesne)		
Location:	NESE S7 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/29/2012	***Allowable Inj Pressure:***	2817 /
Last MIT:	Pass 11/8/2012	***Annulus Pressure From Last MIT:***	1925

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

INSPECTION TYPE: **(Select One)**

- [ ] Construction / Workover
- [ ] Plugging
- [ ] Post-Closure
- [ ] Response to Complaint
- [x] Routine
- [ ] Witness MIT
- [ ] Other

ICIS Entered
Date 12/31/13
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes / [ ] No	Pressure: U: 1857 / L: ____ psig Gauge Range: Scada psig	Gauge Owner:	[ ] EPA / [x] Operator
Annulus Gauge:	[x] Yes / [ ] No	Pressure: 0 psig Gauge Range: opened psig	Gauge Owner:	[x] EPA / [ ] Operator
Bradenhead Gauge:	[ ] Yes / [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA / [ ] Operator
Pump Gauge:	[ ] Yes / [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA / [ ] Operator

Operating Status: (Select One)
- [x] Active
- [ ] Being Reworked
- [ ] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

U2 Entered
Date 12/17/13
Initial

AB	GREEN	BLUE	CBI
		)	

See page 2 for photos, comments, and site conditions.

Inspection Report For Well: UT20736 - 04415 (PAGE 2)

PHOTOGRAPHS: ☐ Yes ☒ No List of photos taken: _____

Comments and site conditions observed during inspection: _____

GPS: GPS File ID: _____

Signature of EPA Inspector(s): _____ _____

☐ Data Entry ☐ Compliance Staff ☐ Hard Copy Filing

NOTICE OF INSPECTION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII, 999 18TH STREET - SUITE 500
DENVER, COLORADO 80202-2405

Date: 12/16/13
Hour: 8:00a

Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300f et seq.).

Firm Name: Petroglyph Operating, Inc.

Firm Address: Roosevelt, UT, Antelope Creek Oil Field

REASON FOR INSPECTION:

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable condition of permit or rule authorization.

SECTION 1445(b) of the SAFE DRINKING WATER ACT is quoted below:

Section 1445(b)(1): Except as provided in Paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials, and a written notice to any supplier of water or other person subject to (a), or person subject (A) a national primary drinking water regulation prescribed under Section 1412(B) an applicable Underground Injection Control Program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, ... facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

Sarah Roberts
Inspector's Name & Title (Print)

Inspector's Signature

EPA R8 3560-1 (8-89)

Original - Regional Office Copy
Yellow Copy - Operator Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

JAN 08 2013

Ref: 8ENF-UFO

CERTIFIED MAIL 7009-3410-0000-2599-7631
RETURN RECEIPT REQUESTED

Mr. Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
P.O. Box 607
Roosevelt, UT 84066

Re: Underground Injection Control (UIC)
Permission to Resume Injection
Tribal 21-14, 16-11, 21-03 and 07-09 Wells
EPA ID# UT20736-06481, 04393, 04363 and 04415
API # 43-013-31742, 43-013-31799, 43-013-31752 and 43-013-31900
Antelope Creek Oil Field
Duchesne County, UT

GREEN	BLUE	CBI

Dear Mr. Farnsworth:

On January 2, 2013, the Environmental Protection Agency (EPA) received information from Petroglyph Operating Company, Inc. on the above referenced wells concerning the workovers and the followup mechanical integrity tests (MIT) conducted between November 8, 2012 and November 11, 2012. The data submitted shows that the wells passed the required MITs. Therefore, pursuant to Title 40 of the Code of Federal Regulations Section 144.51(q)(2) (40 C.F.R. §144.51(q)(2)), permission to resume injection is granted. Under continuous service, the next MITs will be due on or before November 8, 2017 for the 07-09 well, November 9, 2017 for the 21-03 well, November 10, 2017 for the 21-14 well and November 11, 2017 for the 16-11 well.

Pursuant to 40 C.F.R. §144.52(a)(6), if the well is not used for a period of at least two (2) years ("temporary abandonment"), it shall be plugged and abandoned unless EPA is notified and procedures are described to EPA ensuring the well will not endanger underground sources of drinking water ("non-endangerment demonstration") during its continued temporary abandonment. A successful MIT is an acceptable non-endangerment demonstration and would be necessary every two (2) years the well continues in temporary abandonment.

Failure to comply with a UIC Permit, or the UIC regulations found at 40 C.F.R. Parts 144 through 148 constitute one or more violations of the Safe Drinking Water Act, 42 U.S.C. §300h. Such non-compliance may subject you to formal enforcement by EPA, as codified at 40 C.F.R. Part 22.

If you have any questions concerning this letter, you may contact Sarah Roberts at (303) 312-7056. Please direct all correspondence to the attention of Sarah Roberts at Mail Code 8ENF-UFO.

Sincerely,

Darcy O'Connor, Acting Director
UIC/FIFRA/OPA Technical Enforcement Programs

cc:

Irene Cuch, Jr., Chairwoman
Uintah & Ouray Business Committee
P.O. Box 190
Fort Duchesne, Utah 84026

Ronald Wopsock, Vice-Chairman
Uintah & Ouray Business Committee
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Minerals and Air Programs
Ute Indian Tribe
P.O. Box 190
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Mike Natchees, Environmental
Coordinator
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, Utah 84026

John Rogers
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114

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bcc: Randy Brown (8P-TA)

SENDER: COMPLETE THIS SEC

- Complete items 1, 2, and 3. Also item 4 if Restricted Delivery is de
- Print your name and address on so that we can return the card to
- Attach this card to the back of th or on the front if space permits.

1. Article Addressed to:

Les Farnsworth, District Su
Petroglyph Operating Com
4116 W 3000 S Ioka Lane
PO Box 607
Roosevelt, UT 84066

JAN - 9 2015

2. Article Number
(Transfer from service label)

PS Form 3811, February 2004

7009 3410 0000 2598 7637

U.S. Postal Service
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Restricted Delivery Fee (Endorsement Required)		
Total Pr		

Sent To: Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
Street, A or PO Bo: 4116 W 3000 S Ioka Lane
PO Box 607
City, Sta: Roosevelt, UT 84066

PS Form 3800, August 2006 See Reverse for Instructions

Domestic Return Receipt 102595-02-M-1

Printed on Recycled Paper

hp LaserJet 4345mfp series

Fax Call Report 1

U.S. EPA (6211MR)
303-312-6953
2013-Jan-08 12:53 PM

Job	Date/Time	Type	Identification	Duration	Pages	Result
1570	2013-Jan-08 12:51 PM	Send	9,14357229145	1:03	4	Success

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

FACSIMILE TRANSMITTAL SHEET

TO: Les Farnsworth	FROM: Don Breffle
COMPANY: Petroglyph Operating Company	DATE: 01/08/13
FAX NUMBER: 435 722 9145	TOTAL NO. OF PAGES, INCLUDING COVER: 4
PHONE NUMBER:	SENDER'S PHONE NUMBER: 303 312 6186
RE: UIC Permission to Resume Injection	YOUR REFERENCE NUMBER:

URGENT ☒ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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1595 WYNKOOP STREET
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

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COMPANY: Petroglyph Operating Company	DATE: 01/08/13
FAX NUMBER: 435 722 9145	TOTAL NO. OF PAGES, INCLUDING COVER: 4
PHONE NUMBER:	SENDER'S PHONE NUMBER: 303 312 6186
RE: UIC Permission to Resume Injection	YOUR REFERENCE NUMBER:

URGENT ☒ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Ref: 8ENF-UFO CONCURRENCE COPY

CERTIFIED MAIL 7009-3410-0000-2599-7631
RETURN RECEIPT REQUESTED

Mr. Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
P.O. Box 607
Roosevelt, UT 84066

Re: Underground Injection Control (UIC)
Permission to Resume Injection
Tribal 21-14, 16-11, 21-03 and 07-09 Wells
EPA ID# UT20736-06481, 04393, 04363 and 04415
API # 43-013-31742, 43-013-31799, 43-013-31752 and 43-013-31900
Antelope Creek Oil Field
Duchesne County, UT

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8ENF-UFO
1/2/13

8ENF-UFO
1/2/13

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UIC/FIFRA/OPA Technical Enforcement Programs

cc: Irene Cuch, Jr., Chairwoman
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John Rogers
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114

bcc: Randy Brown (8P-TA)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

AUG 29 2012

Ref: 8ENF-UFO

CERTIFIED MAIL 7009-3410-0000-2598-1692
RETURN RECEIPT REQUESTED

Mr. Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
P.O. Box 607
Roosevelt, UT 84066

Re: Underground Injection Control (UIC)
Notice of Violation:
Loss of Mechanical Integrity
Ute Tribal 07-09 Well
EPA Permit# UT20736-04415
API # 43-013-31900
Antelope Creek Field
Duchesne County, UT

Dear Mr. Farnsworth:

On August 23, 2012, the Environmental Protection Agency (EPA) learned that the Petroglyph Operating Company, Inc. injection well referenced above lost mechanical integrity on August 20, 2012. Pursuant to the above-referenced UIC Permit and Title 40 of the Code of Federal Regulations Section 144.51(q)(1) (40 C.F.R. §144.51(q)(1)), you must establish and maintain mechanical integrity. A loss of mechanical integrity is a violation of this requirement.

Pursuant to the above-referenced UIC Permit and the regulations at 40 C.F.R. §144.51(q)(2), you must immediately cease injection into this well. Before injection may resume, you must demonstrate that the well has mechanical integrity by passing a mechanical integrity test (MIT). You must also receive written authorization from the EPA.

Within thirty (30) days of receipt of this letter, please submit a letter describing what action you intend to take regarding the well, including a time frame in which you anticipate the work to be completed. It is expected that you will return this well to compliance within ninety (90) days of the loss of mechanical integrity.

If you choose to plug and abandon this well, a plugging and abandonment plan must be submitted to EPA for approval prior to the plugging operation.

Failure to comply with the UIC regulations found at 40 C.F.R. Parts 144 through 148 constitutes one or more violations of the Safe Drinking Water Act, 42 U.S.C. §300h. Such non-compliance may subject you to formal enforcement by EPA, as codified at 40 C.F.R. Part 22.

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Ute Indian Tribe
P.O. Box 190
Fort Duchesne, Utah 84026

John Rogers
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114

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bcc: Randy Brown (8P-TA)

SENDER: COMPLETE THIS SECTION

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1. Article Addressed to:

AUG 29 2012

Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
PO Box 607
Roosevelt, UT 84066

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Julie Ray
☐ Agent
☐ Addressee

B. Received by (Printed Name)
C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

ROOSEVELT UT 84066
AUG 31 2012
USPS

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☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7009 3410 0000 2598 1692

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Sent To Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
Street, A 4116 W 3000 S Ioka Lane
or PO Bo PO Box 607
City, Sta Roosevelt, UT 84066

PS Form 3800, August 2006 See Reverse for Instructions

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hp LaserJet 4345mfp series

Fax Call Report 1

U.S. EPA (6211MR)
303-312-6953
2012-Aug-29 08:41 AM

Job	Date/Time	Type	Identification	Duration	Pages	Result
1439	2012-Aug-29 08:40 AM	Send	9,14357229145	1:00	4	Success

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

FACSIMILE TRANSMITTAL SHEET

TO: Les Farnsworth	FROM: Don Breffle
COMPANY: Petroglyph	DATE: 08/29/12
FAX NUMBER: 435 722 9145	TOTAL NO. OF PAGES, INCLUDING COVER: 4
PHONE NUMBER:	SENDER'S PHONE NUMBER: 303 312 6198
RE: UIC NOV	YOUR REFERENCE NUMBER:

URGENT ☒ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
Phone 800-227-8917
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COMPANY: Petroglyph	DATE: 08/29/12
FAX NUMBER: 435 722 9145	TOTAL NO. OF PAGES, INCLUDING COVER: 4
PHONE NUMBER:	SENDER'S PHONE NUMBER: 303 312 6198
RE: UIC NOV	YOUR REFERENCE NUMBER:

URGENT ☒ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Ref: 8ENF-UFO CONCURRENCE COPY

CERTIFIED MAIL 7009-3410-0000-2598-1692
RETURN RECEIPT REQUESTED

Mr. Les Farnsworth, District Supervisor
Petroglyph Operating Company, Inc.
4116 W 3000 S Ioka Lane
P.O. Box 607
Roosevelt, UT 84066

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Notice of Violation:
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Ute Tribal 07-09 Well
EPA Permit# UT20736-04415
API # 43-013-31900
Antelope Creek Field
Duchesne County, UT

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8ENF-UFO 8/23/12

J Schlueter 8/27/12 8ENF-UFO

8ENF-UFO 8/23/12

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Sincerely,

Darcy O'Connor, Acting Director
UIC/FIFRA/OPA Technical Enforcement Programs

cc:

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John Rogers
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114

bcc: Randy Brown (8P-TA)

Printed on Recycled Paper

Inspection Report For Well: UT20736 - 04415

U.S. Environmental Protection Agency
Underground Injection Control Program, 8ENF-T
999 18th Street, Suite 300, Denver, CO 80202-2466

This form was printed on 7/27/2012

INSPECTOR(S): Lead: Breffle, Don — Date: 8/29/2012

Others: Zhang, Qian — Time: 11:08 am / pm

OPERATOR (only if different): Chad Stevenson Rodrigo Jurado

REPRESENTATIVE(S):

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 07-09		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 12/31/2002		
Oil Field:	Antelope Creek (Duchesne)		
Location:	NESE S7 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	7/14/2010	***Allowable Inj Pressure:***	2817 /
Last MIT:	Pass 4/20/2008	***Annulus Pressure From Last MIT:***	1190

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

ICIS Entered
Date 9/13/12
Initials DB

INSPECTION TYPE: **(Select One)**

- [ ] Construction / Workover
- [ ] Plugging
- [ ] Post-Closure
- [ ] Response to Complaint
- [x] Routine
- [ ] Witness MIT
- [ ] Other

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 1636 / L: ____ psig Gauge Range: SCADA psig	Gauge Owner:	[ ] EPA [x] Operator
Annulus Gauge:	[x] Yes [ ] No	Pressure: 1700 psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [x] Operator
Bradenhead Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator
Pump Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator

Operating Status: (Select One)
- [ ] Active
- [ ] Being Reworked
- [x] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

U2 Entered
Date 9/20/12
Initial DB

See page 2 for photos, comments, and site conditions.

Inspection Report For Well: UT20736 - 04415 (PAGE 2)

PHOTOGRAPHS: ☐ Yes ☒ No List of photos taken: _____

Comments and site conditions observed during inspection:

lost ML - NOV has already been sent

GPS: GPS File ID: _____

Signature of EPA Inspector(s): _____ _____ _____

☐ Data Entry ☐ Compliance Staff ☐ Hard Copy Filing

NOTICE OF INSPECTION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII, 999 18TH STREET - SUITE 500
DENVER, COLORADO 80202-2405

Date: 8/28/12 Hour: 8:00 AM	Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300f et seq.).

Firm Name: Petroglyph Operating Co

Firm Address: 4116 W 3000 S Loka La
Roosevelt, UT

REASON FOR INSPECTION:

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable condition of permit or rule authorization.

SECTION 1445(b) of the SAFE DRINKING WATER ACT is quoted below:

Section 1445(b)(1): . Except as provided in Paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials, and a written notice to any supplier of water or other person subject to (a), or person subject (A) a national primary drinking water regulation prescribed under Section 1412(B) an applicable Underground Injection Control Program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, ... facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

Don Breffle
Inspector's Name & Title (Print)

Qian Zhang

Don Breffle
Inspector's Signature

EPA R8 3560-1 (8-89)

Original - Regional Office Copy
Yellow Copy - Operator Copy

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

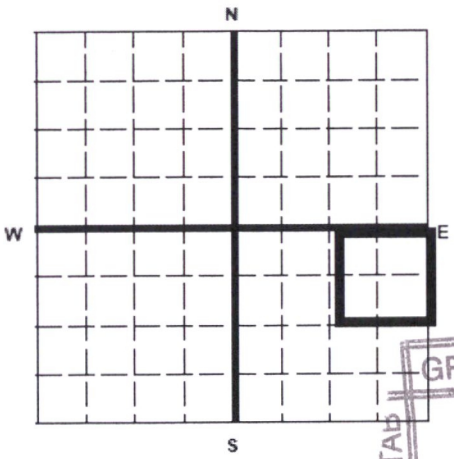
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-04415

Surface Location Description
___ 1/4 of ___ 1/4 of NE 1/4 of SE 1/4 of Section 7 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1937 ft. frm (N/S) S Line of quarter section
and 570 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 3/29/17
Initial DB

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 07-09

TAB: GREEN | BLUE | CBI
2

MONTH	YEAR	INJECTION PRESSURE AVERAGE PSIG	INJECTION PRESSURE MAXIMUM PSIG	TOTAL VOLUME INJECTED BBL	TOTAL VOLUME INJECTED MCF	TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MINIMUM PSIG	TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MAXIMUM PSIG
January	16	1864	1887	1375		0	0
February	16	1910	1916	1490		0	0
March	16	1915	1932	1568		0	0
April	16	1895	1904	1442		0	0
May	16	1899	1913	1514		0	0
June	16	1861	1892	1407		0	0
July	16	1902	1929	1696		0	0
August	16	1922	1931	1802		0	0
September	16	1902	1916	1662		0	0
October	16	1910	1919	1756		0	0
November	16	1851	1881	1448		0	0
December	16	1859	1893	1673		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		03/21/2017

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 07-09 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/5/2017**		
Sample ID:	**WA-345074**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/16/2017
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0008
pH:	7.27
Calculated TDS (mg/L):	5188.28
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	158.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	1802.38	Chloride (Cl):	2500.00
Potassium (K):	6.69	Sulfate (SO_4):	50.00
Magnesium (Mg):	25.98	Bicarbonate (HCO_3):	732.00
Calcium (Ca):	45.91	Carbonate (CO_3):	
Strontium (Sr):	1.25	Hydroxide(HO):	
Barium (Ba):	2.18	Acetic Acid (CH_3COO)	
Iron (Fe):	11.08	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	3.01	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.12	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.11	Bromine (Br):	
Aluminum (Al):	0.00	Silica (SiO_2):	7.57
Lithium (Li):	2.01	Calcium Carbonate ($CaCO_3$):	
Boron (B):	1.01	Phosphates (PO_4):	2.48
Silicon (Si):	3.54	Oxygen (O_2):	

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.63	22.83	0.39	0.75	2.71	4.57	2.09	7.98	0.00	0.00	0.00	0.00	0.00	0.00	9.27	1.57
167.00	267.00	0.46	17.60	0.41	0.78	2.59	4.56	1.91	7.94	0.00	0.00	0.00	0.00	0.00	0.00	9.29	1.57
153.00	483.00	0.35	13.77	0.44	0.82	2.55	4.55	1.77	7.89	0.00	0.00	0.00	0.00	0.00	0.00	9.38	1.57
140.00	700.00	0.25	9.88	0.48	0.86	2.51	4.55	1.64	7.83	0.00	0.00	0.00	0.00	0.00	0.00	9.49	1.57
127.00	917.00	0.15	6.01	0.54	0.91	2.49	4.54	1.51	7.75	0.00	0.00	0.00	0.00	0.00	0.00	9.62	1.57
113.00	1133.00	0.06	2.26	0.60	0.97	2.49	4.54	1.38	7.65	0.00	0.00	0.00	0.00	0.00	0.00	9.76	1.57
100.00	1350.00	0.00	0.00	0.68	1.02	2.50	4.54	1.25	7.51	0.00	0.00	0.00	0.00	0.00	0.00	9.92	1.57
87.00	1567.00	0.00	0.00	0.78	1.08	2.52	4.55	1.13	7.33	0.00	0.00	0.00	0.00	0.00	0.00	10.10	1.57
73.00	1783.00	0.00	0.00	0.89	1.13	2.56	4.55	1.01	7.10	0.00	0.00	0.00	0.00	0.00	0.00	10.30	1.57
60.00	2000.00	0.00	0.00	1.02	1.17	2.61	4.56	0.89	6.82	0.00	0.00	0.00	0.00	0.00	0.00	10.51	1.57

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Vernal, UT 84078

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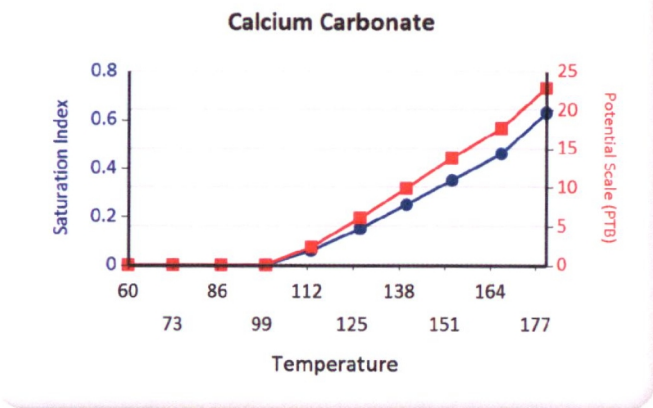
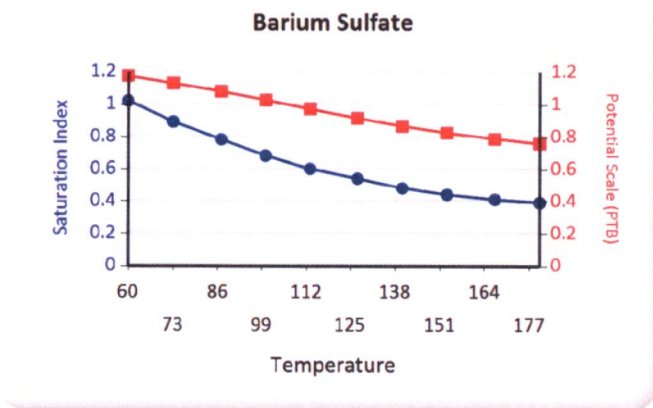
Water Analysis Report

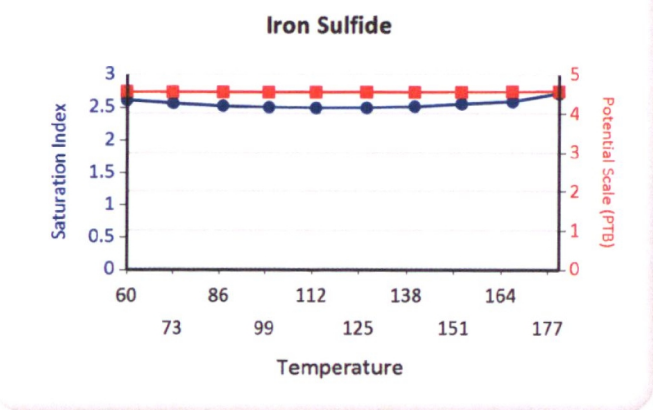
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.96	9.15	0.05	0.26	1.72	0.00	0.00	6.19	8.42
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	1.91	9.27	0.05	0.00	0.00	0.00	0.00	5.21	8.20
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	1.85	9.48	0.05	0.00	0.00	0.00	0.00	4.55	7.94
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	1.76	9.71	0.05	0.00	0.00	0.00	0.00	3.91	7.56
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	1.60	9.96	0.05	0.00	0.00	0.00	0.00	3.29	7.02
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	1.33	10.24	0.05	0.00	0.00	0.00	0.00	2.67	6.29
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.87	10.55	0.05	0.00	0.00	0.00	0.00	2.08	5.34
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	10.88	0.05	0.00	0.00	0.00	0.00	1.50	4.18
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.25	0.05	0.00	0.00	0.00	0.00	0.95	2.82
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.66	0.05	0.00	0.00	0.00	0.00	0.41	1.30

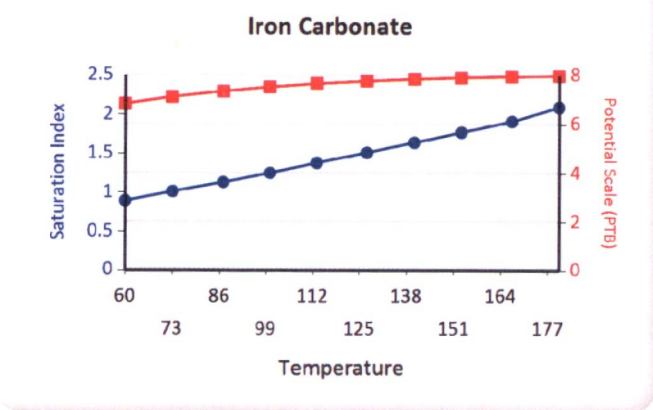
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Fe Silicate

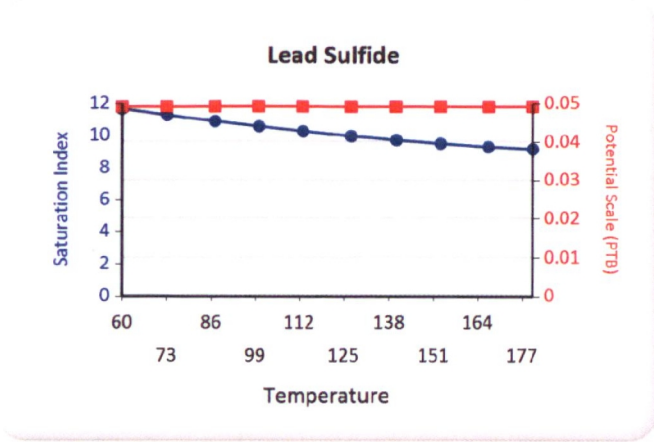
These scales have positive scaling potential under final temperature and pressure: Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Lead Sulfide Fe Silicate

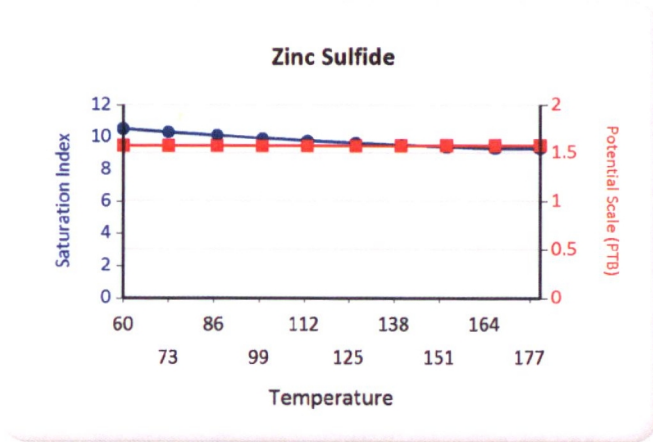


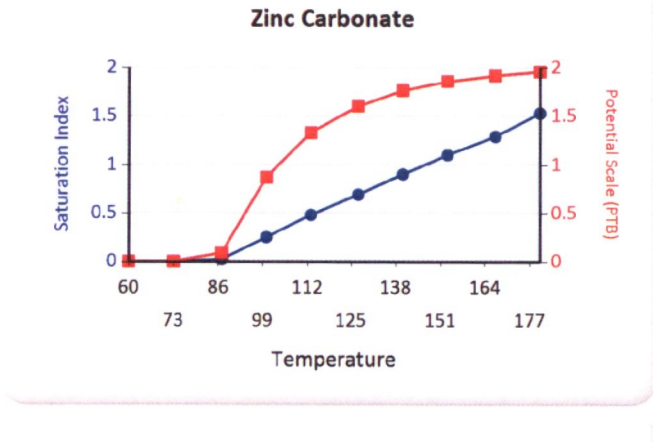


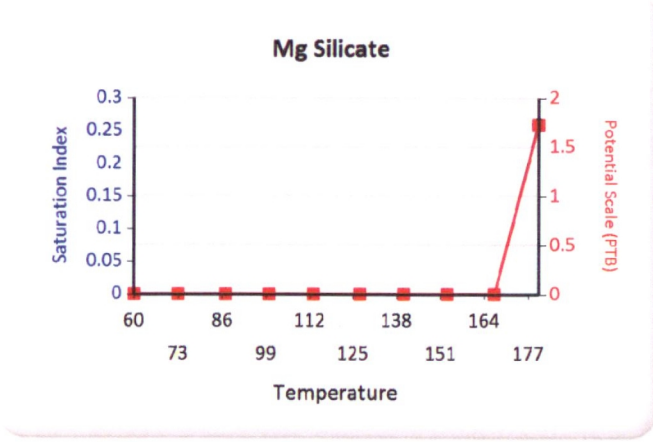


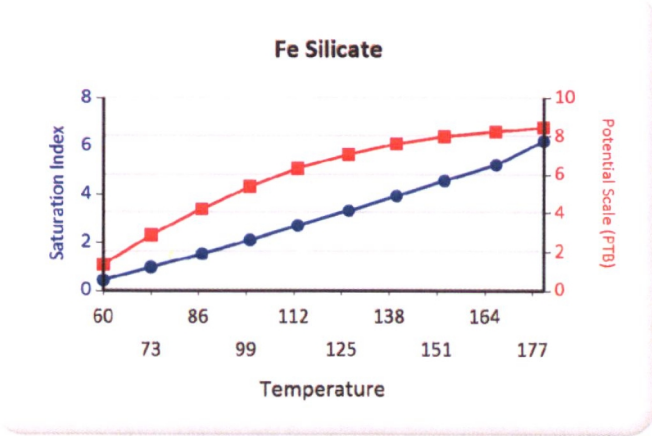



Lead Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
12
10
8
6
4
2
0
0.05
0.04
0.03
0.02
0.01
0
60
86
112
138
164
73
99
125
151
177


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
12
10
8
6
4
2
0
2
1.5
1
0.5
0
60
86
112
138
164
73
99
125
151
177


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
2
1.5
1
0.5
0
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0.3
0.25
0.2
0.15
0.1
0.05
0
2
1.5
1
0.5
0
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
10
60
86
112
138
164
73
99
125
151
177

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

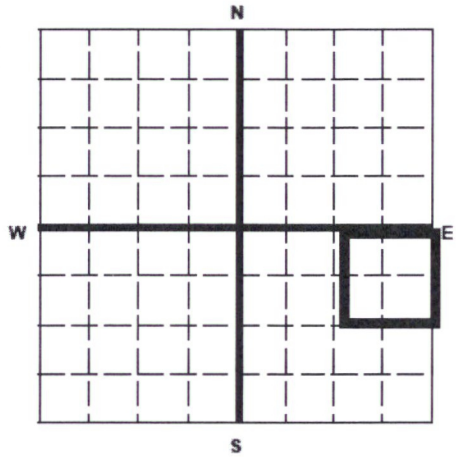
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State Utah
County Duchesne
Permit Number UT2736-~~04434~~ 04415

Surface Location Description
___ 1/4 of ___ 1/4 of NE 1/4 of SE 1/4 of Section 7 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1937 ft. frm (N/S) S Line of quarter section and 570 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 2/29/16
Initial B

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe
Well Number UTE TRIBAL 07-09

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	15	1846	1886	1781		0	0
February	15	1873	1915	1687		0	0
March	15	1855	1918	1653		0	0
April	15	1879	1913	1698		0	0
May	15	1830	1920	1558		0	0
June	15	1898	1932	1667		0	0
July	15	1855	1899	1458		0	0
August	15	1787	1848	1390		0	0
September	15	1852	1907	1589		0	0
October	15	1898	1916	1730		0	0
November	15	1909	1921	1591		0	0
December	15	1901	1910	1514		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		02/08/2016

EPA Form 7520-11 (Rev. 12-11)

TAB | GREEN | BLUE | OBL
2

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 07-09 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327551**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/14/2016
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0001
pH:	6.50
Calculated TDS (mg/L):	3915.31
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	24.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	995.09	Chloride (Cl):	1500.00
Potassium (K):	3.11	Sulfate (SO_4):	560.00
Magnesium (Mg):	81.34	Bicarbonate (HCO_3):	488.00
Calcium (Ca):	200.94	Carbonate (CO_3):	
Strontium (Sr):	6.06	Acetic Acid (CH_3COO)	
Barium (Ba):	0.79	Propionic Acid (C_2H_5COO)	
Iron (Fe):	45.58	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	2.57	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.60	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.43	Silica (SiO_2):	30.80
Aluminum (Al):	0.10	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	1.09	Phosphates (PO_4):	2.61
Boron (B):	0.56	Oxygen (O_2):	
Silicon (Si):	14.40		

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.30	25.61	0.90	0.41	0.00	0.00	1.77	32.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	0.13	11.60	0.92	0.41	0.00	0.00	1.58	31.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	0.02	2.06	0.95	0.42	0.00	0.00	1.44	31.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	0.00	0.00	0.99	0.42	0.00	0.00	1.31	30.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	0.00	0.00	1.04	0.43	0.00	0.00	1.17	29.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	0.00	0.00	1.10	0.43	0.00	0.00	1.04	28.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	0.00	0.00	1.18	0.44	0.00	0.00	0.90	26.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	0.00	0.00	1.27	0.45	0.00	0.00	0.77	24.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	0.00	0.00	1.38	0.45	0.00	0.00	0.65	22.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	0.00	0.00	1.50	0.46	0.00	0.00	0.53	19.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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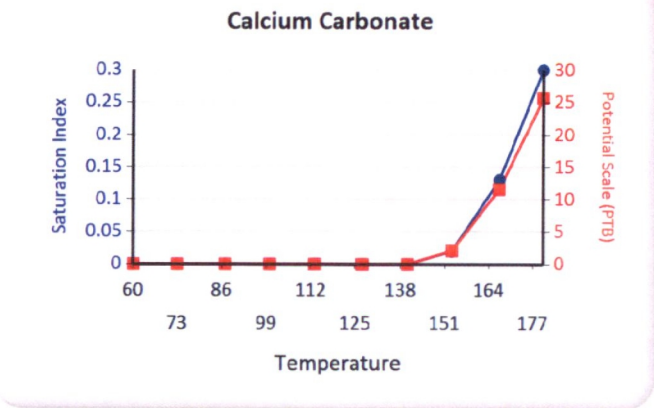
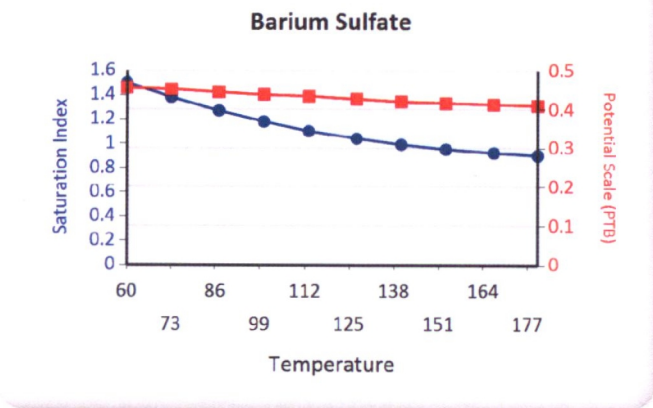
Water Analysis Report

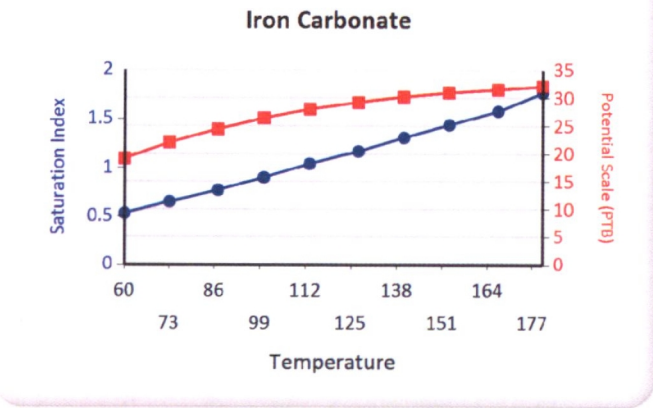
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	1.26	0.00	0.00	0.00	0.00	0.00	0.00	4.67	31.85
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.92	0.00	0.00	0.00	0.00	0.00	0.00	3.65	28.57
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.47	0.00	0.00	0.00	0.00	0.00	0.00	2.98	25.37
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	21.31
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	16.43
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	10.80
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	4.57
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

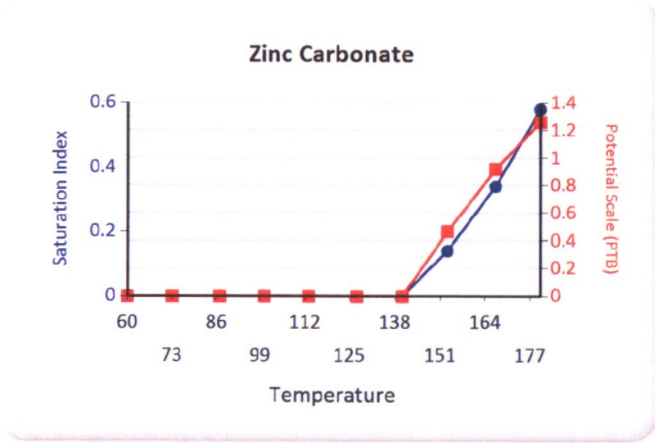
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Fe Silicate

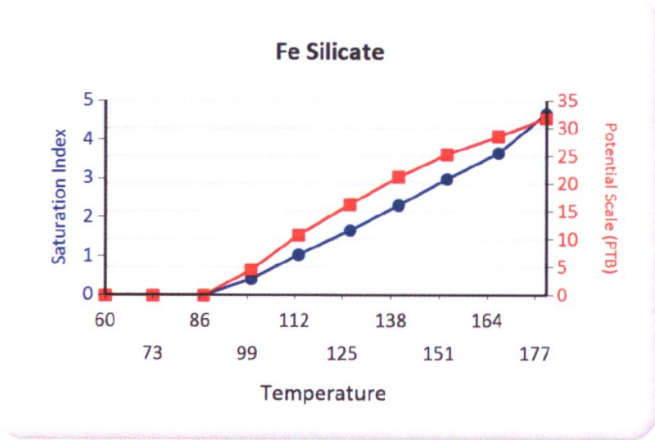
These scales have positive scaling potential under final temperature and pressure: Barium Sulfate Iron Carbonate








Zinc Carbonate
Saturation Index
0.6
0.4
0.2
0
Potential Scale (PTB)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
60
86
112
138
164
73
99
125
151
177
Temperature


Fe Silicate
Saturation Index
5
4
3
2
1
0
Potential Scale (PTB)
35
30
25
20
15
10
5
0
60
86
112
138
164
73
99
125
151
177
Temperature

OMB No. 2040-0042 Approval Expires 12/31/2011

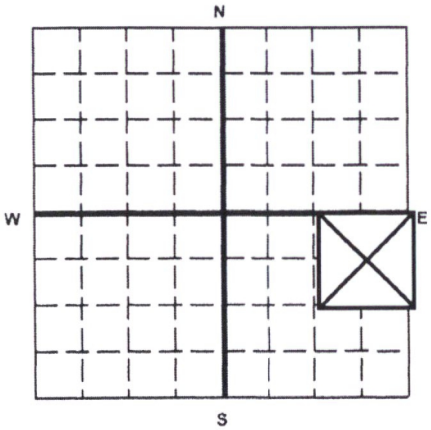
EPA

United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee	Name and Address of Surface Owner
Petroglyph Operating Company, Inc. 2258 P.O. Box 7608 Boise, Idaho 83709	Ute Indian Tribe P.O. Box 70 Ft. Duchesne, Utah 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-04415

Surface Location Description

___ 1/4 of ___ 1/4 of NE 1/4 of SE 1/4 of Section 7 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1937 ft. frm (N/S) S Line of quarter section and 570 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 07-09

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	14	1886	1908	1681		0	0
February	14	1843	1856	1196		0	0
March	14	1826	1862	1439		0	0
April	14	1913	1922	1715		0	0
May	14	1836	1908	1625		0	0
June	14	1875	1892	1559		0	0
July	14	1873	1907	1635		0	0
August	14	1871	1883	1709		0	0
September	14	1814	1920	1438		0	0
October	14	1859	1884	1794		0	0
November	14	1894	1912	1828		0	0
December	14	1877	1890	1718		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		2/10/2015

EPA Form 7520-11 (Rev. 12-08)

U2 Entered
Date 3/20/15
Initial GW

	GREEN	BLUE	CBI
TAB		2	

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 07-09 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297541**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	1/14/2015
System Temperature 1 (°F):	160
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	80
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.0042
pH:	8.10
Calculated TDS (mg/L):	10391.85
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3189.82	Chloride (Cl):	5000.00
Potassium (K):	47.08	Sulfate (SO_4):	74.00
Magnesium (Mg):	19.87	Bicarbonate (HCO_3):	1976.00
Calcium (Ca):	37.32	Carbonate (CO_3):	
Strontium (Sr):	5.82	Acetic Acid (CH_3COO)	
Barium (Ba):	8.79	Propionic Acid (C_2H_5COO)	
Iron (Fe):	3.47	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.83	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.06	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.11	Silica (SiO_2):	28.68

Notes:
B=6.16 Al=.11 Li=1.81

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	1.17	27.83	1.47	5.04	3.20	1.91	2.04	2.50	0.00	0.00	0.00	0.00	0.00	0.00	10.65	0.43
88.00	157.00	1.16	27.38	1.39	5.01	3.10	1.91	2.06	2.50	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.43
97.00	300.00	1.18	27.67	1.31	4.96	3.04	1.91	2.11	2.50	0.00	0.00	0.00	0.00	0.00	0.00	10.28	0.43
106.00	443.00	1.20	27.96	1.24	4.91	2.99	1.91	2.16	2.51	0.00	0.00	0.00	0.00	0.00	0.00	10.13	0.43
115.00	585.00	1.22	28.26	1.18	4.86	2.96	1.91	2.20	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.99	0.43
124.00	728.00	1.25	28.56	1.12	4.80	2.92	1.91	2.25	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.86	0.43
133.00	871.00	1.27	28.86	1.06	4.75	2.90	1.91	2.30	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.74	0.43
142.00	1014.00	1.30	29.16	1.02	4.69	2.88	1.91	2.35	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.63	0.43
151.00	1157.00	1.34	29.45	0.97	4.63	2.87	1.91	2.39	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.52	0.43
160.00	1300.00	1.37	29.73	0.93	4.58	2.87	1.91	2.44	2.51	0.00	0.00	0.00	0.00	0.00	0.00	9.43	0.43

		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.43	11.78	0.02	0.00	0.00	0.00	0.00	6.28	2.67
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	0.46	11.46	0.02	0.00	0.00	0.00	0.00	6.28	2.67
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.48	11.19	0.02	0.28	1.85	0.00	0.00	6.52	2.67
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.50	10.94	0.02	0.69	4.32	0.00	0.00	6.77	2.68
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.51	10.71	0.02	1.10	6.83	0.14	1.16	7.03	2.68
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.52	10.49	0.02	1.52	9.38	0.37	2.73	7.30	2.68
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.53	10.28	0.02	1.94	11.95	0.60	4.31	7.58	2.69
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	0.54	10.08	0.02	2.36	14.51	0.84	5.88	7.86	2.69
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.54	9.90	0.02	2.78	17.03	1.08	7.44	8.15	2.69
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	0.54	9.72	0.02	3.21	19.47	1.32	8.95	8.45	2.70

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1553 East Highway 40
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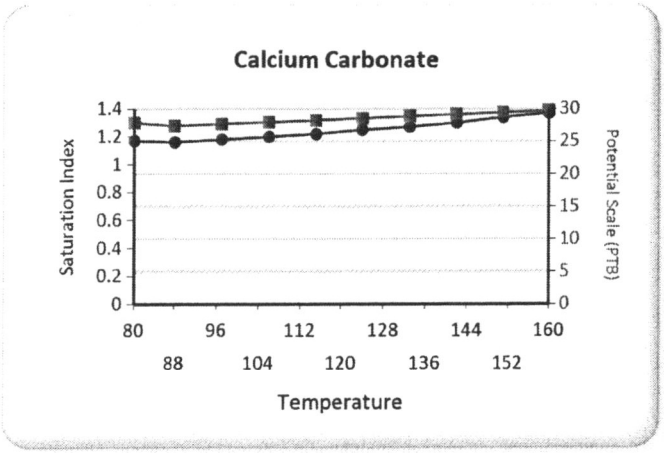
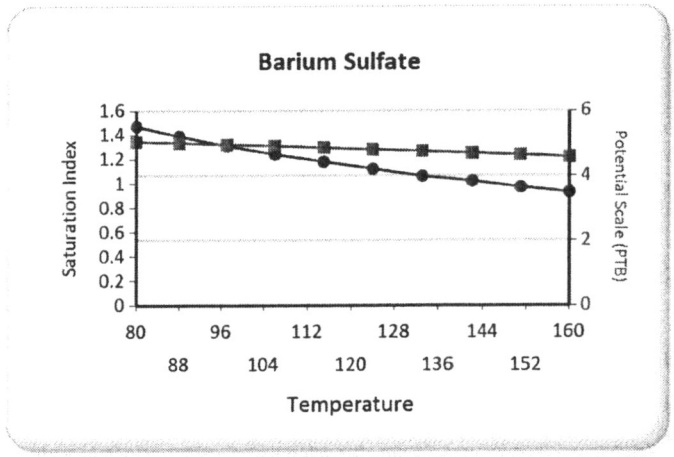
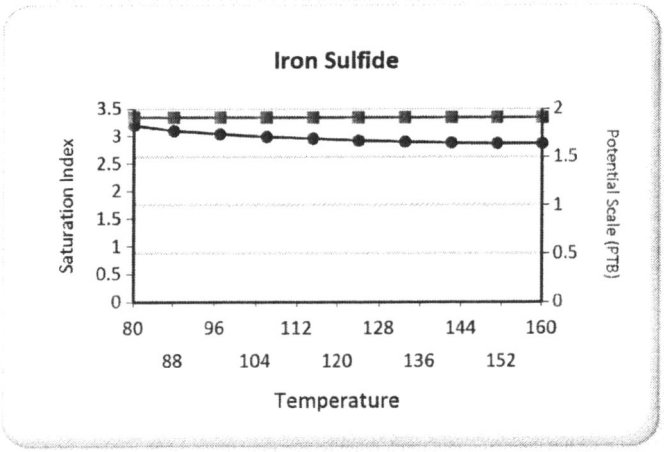
Water Analysis Report

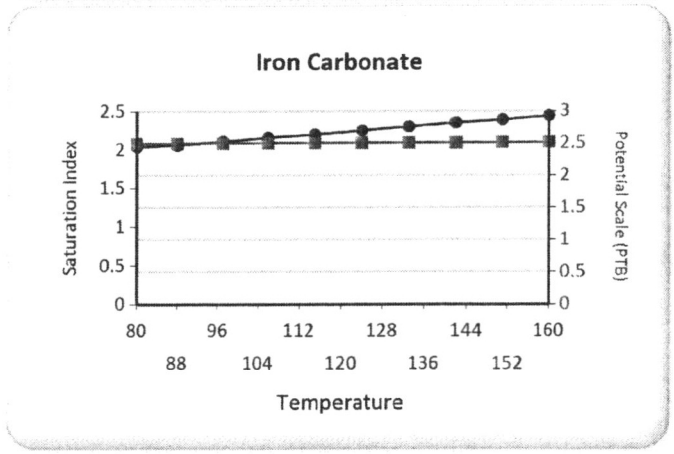
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Fe Silicate

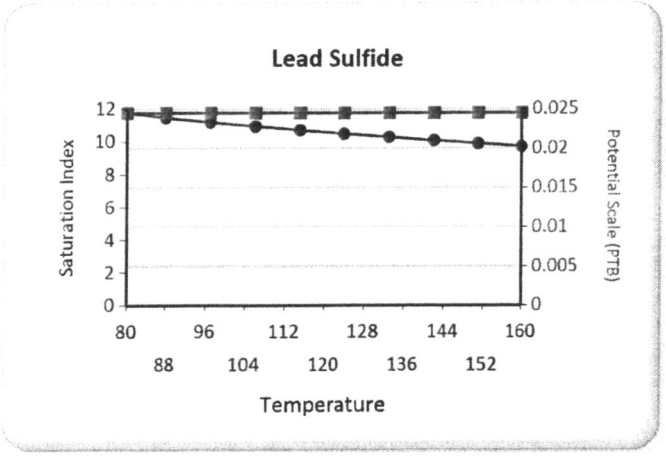
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

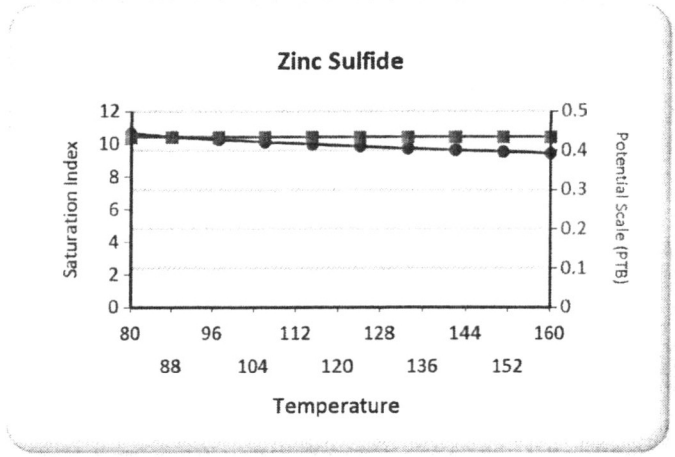


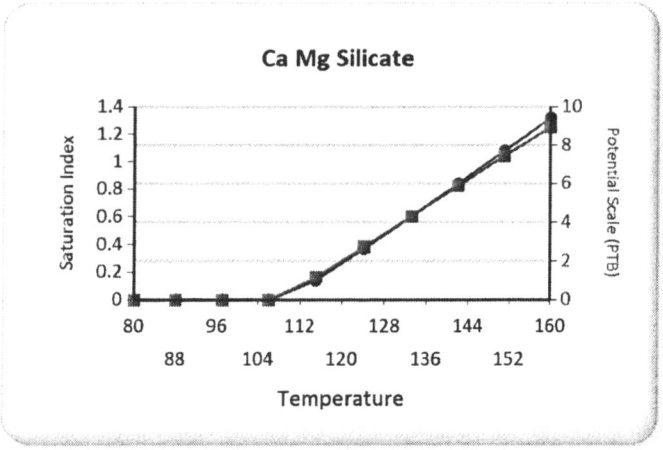


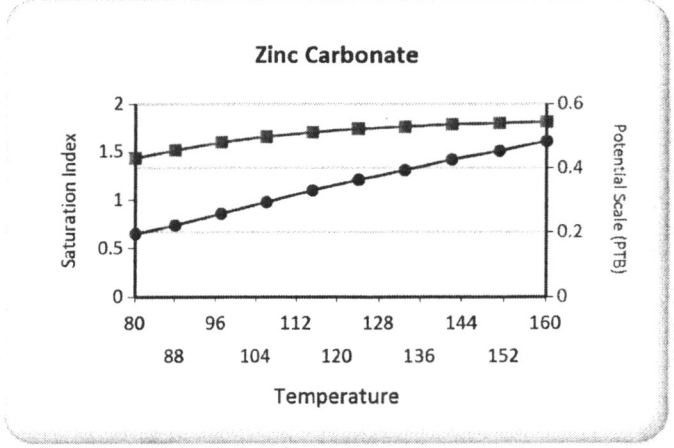


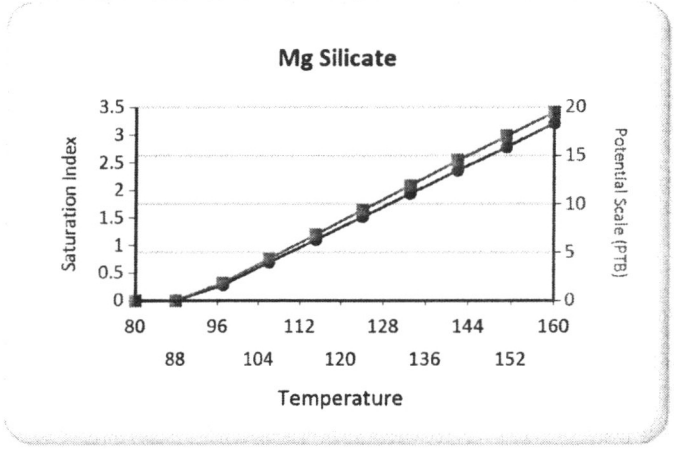


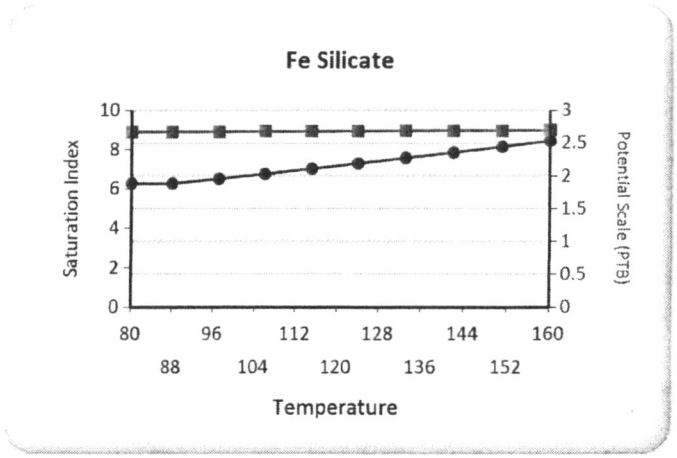





Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
1.4
1.2
1
0.8
0.6
0.4
0.2
0
10
8
6
4
2
0
80
96
112
128
144
160
88
104
120
136
152


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
2
1.5
1
0.5
0
0.6
0.4
0.2
0
80
96
112
128
144
160
88
104
120
136
152


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
3.5
3
2.5
2
1.5
1
0.5
0
20
15
10
5
0
80
96
112
128
144
160
88
104
120
136
152


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
10
8
6
4
2
0
3
2.5
2
1.5
1
0.5
0
80
96
112
128
144
160
88
104
120
136
152

OMB No. 2040-0042 Approval Expires 12/31/2011

United States Environmental Protection Agency
Washington, DC 20460

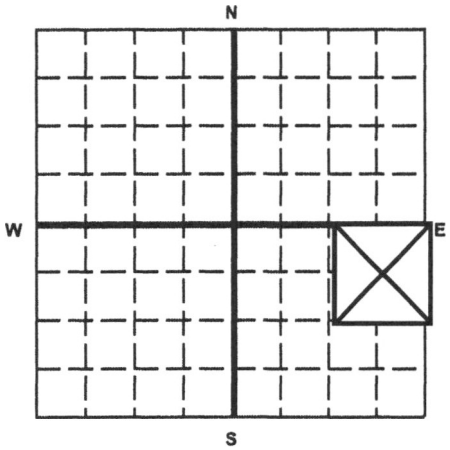
EPA

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-04415

Surface Location Description
___ 1/4 of ___ 1/4 of NE 1/4 of SE 1/4 of Section 7 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 1937 ft. frm (N/S) S Line of quarter section
and 570 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [x] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [x] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 07-09

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	13	1310	1623	860		0	0
February	13	1776	1841	1927		0	0
March	13	1858	1897	1790		0	0
April	13	1870	1908	1489		0	0
May	13	1900	1917	1403		0	0
June	13	1856	1863	1245		0	0
July	13	1890	1920	1176		0	0
August	13	1895	1910	1275		0	0
September	13	1886	1901	1236		0	0
October	13	1871	1943	1333		0	0
November	13	1825	1878	1228		0	0
December	13	1873	1910	1751		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		2/11/2014

U2 Entered
Date 3/15/14
Initial SB

EPA Form 7520-11 (Rev. 12-08)

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH ENERGY INC**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 07-09 INJ**	Lab Tech:	**Gary Winegar**
Sample Point:	**Wellhead**		
Sample Date:	**1/8/2014**		
Sample ID:	**WA-262956**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	1/15/2014
System Temperature 1 (°F):	180
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	60
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.006
pH:	8.40
Calculated TDS (mg/L):	13223.39
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	4628.48	Chloride (Cl):	6000.00
Potassium (K):	90.00	Sulfate (SO_4):	114.00
Magnesium (Mg):	24.00	Bicarbonate (HCO_3):	2269.20
Calcium (Ca):	56.00	Carbonate (CO_3):	
Strontium (Sr):	5.20	Acetic Acid (CH_3COO)	
Barium (Ba):	8.40	Propionic Acid (C_2H_5COO)	
Iron (Fe):	4.00	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.29	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.03	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.25	Silica (SiO_2):	23.54

Notes:
B=5.4 Al=.01 Li=1.3

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	1.58	45.08	1.73	4.90	0.00	0.00	2.25	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	157.00	1.59	45.02	1.58	4.86	0.00	0.00	2.31	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	300.00	1.61	45.29	1.45	4.82	0.00	0.00	2.38	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	443.00	1.63	45.58	1.34	4.76	0.00	0.00	2.45	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	585.00	1.66	45.88	1.24	4.70	0.00	0.00	2.52	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	728.00	1.69	46.19	1.16	4.64	0.00	0.00	2.58	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	871.00	1.73	46.50	1.08	4.57	0.00	0.00	2.64	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	1014.00	1.77	46.79	1.02	4.50	0.00	0.00	2.71	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166.00	1157.00	1.82	47.07	0.97	4.44	0.00	0.00	2.77	2.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	1300.00	1.87	47.33	0.92	4.38	0.00	0.00	2.82	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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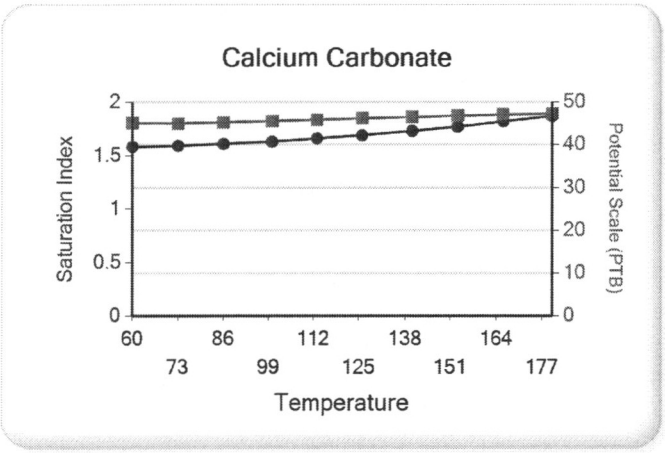
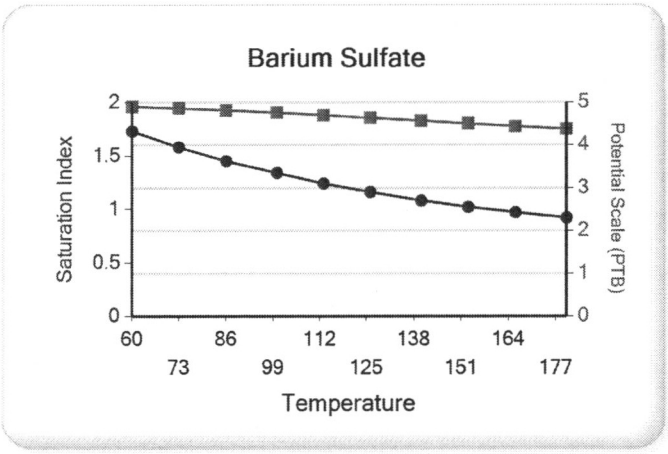
Water Analysis Report

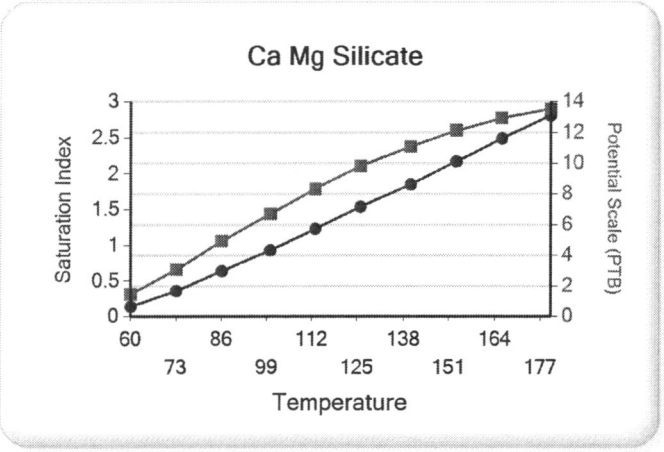
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.05	0.00	0.00	0.57	4.68	0.14	1.45	7.44	3.10
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.10	0.00	0.00	1.04	7.83	0.36	3.07	7.64	3.10
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.14	0.00	0.00	1.57	11.29	0.64	4.94	7.92	3.10
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.15	0.00	0.00	2.12	14.58	0.93	6.72	8.23	3.11
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.17	0.00	0.00	2.68	17.66	1.23	8.36	8.56	3.11
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	0.18	0.00	0.00	3.25	20.47	1.54	9.83	8.90	3.11
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.18	0.00	0.00	3.82	22.92	1.85	11.09	9.26	3.11
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.19	0.00	0.00	4.39	24.92	2.17	12.12	9.63	3.11
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.19	0.00	0.00	4.96	26.40	2.49	12.93	10.01	3.11
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56	0.19	0.00	0.00	5.52	27.38	2.81	13.53	10.40	3.11

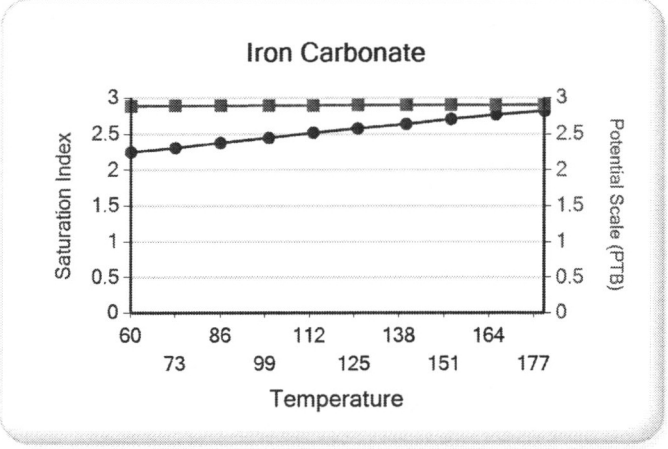
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

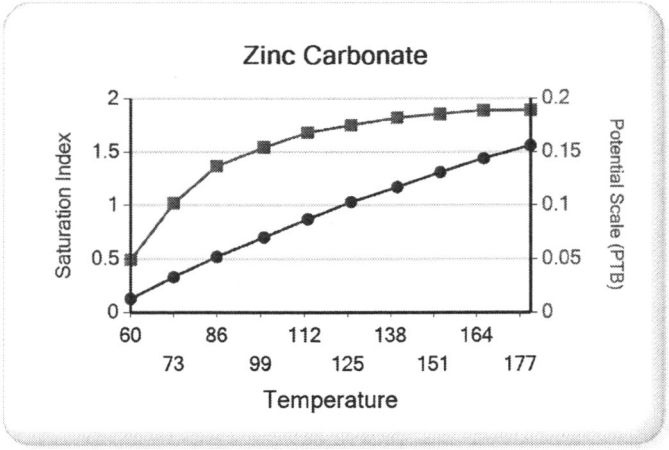
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

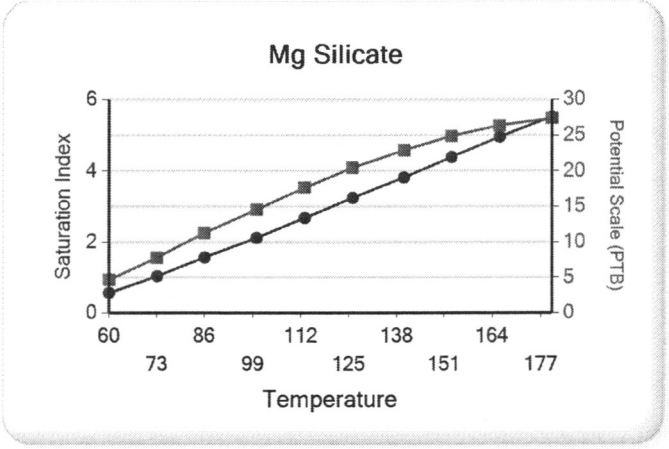


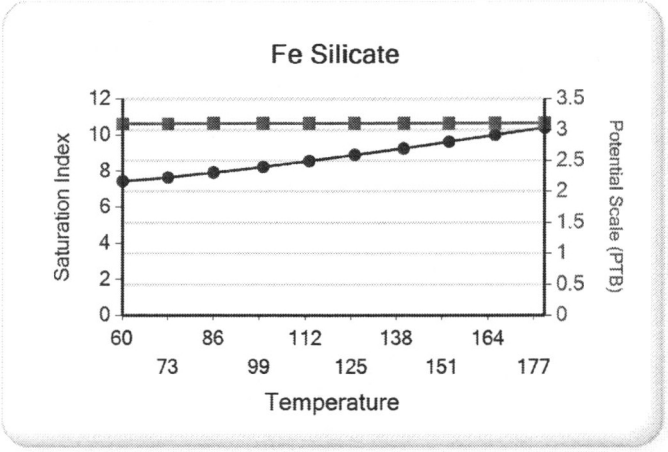







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0
0.5
1
1.5
2
0
0.05
0.1
0.15
0.2
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
0
5
10
15
20
25
30
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
10
12
0
0.5
1
1.5
2
2.5
3
3.5
60
86
112
138
164
73
99
125
151
177