Inspection Report For Well: UT20736 - 04359

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~~ 12/10 /2013

Others: Ajayi, Christopher — Time: 2:28 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 30-08		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 12/31/2002		
Oil Field:	Antelope Creek (Duchesne)		
Location:	SENE S30 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/29/2012	***Allowable Inj Pressure:***	2201 /
Last MIT:	Pass 4/20/2009	***Annulus Pressure From Last MIT:***	1160

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

ICIS Entered
Date 12/30/13
Initials SB

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: 1577 / 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 SB

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

GREEN	BLUE	CBI
	1	

Inspection Report For Well: UT20736 - 04359 (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

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

EPA

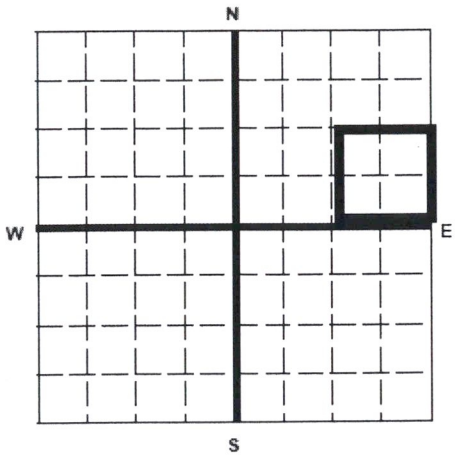
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04359

Surface Location Description
___ 1/4 of ___ 1/4 of SE 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

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

Surface Location 2000 ft. frm (N/S) N Line of quarter section
and 650 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 30-08

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	16	1751	1778	398		0	0
February	16	1834	1868	1174		0	0
March	16	1840	1857	1216		0	0
April	16	1801	1836	1044		0	0
May	16	1815	1835	1110		0	0
June	16	1796	1854	970		0	0
July	16	1800	1822	991		0	0
August	16	1792	1833	894		0	0
September	16	1765	1807	802		0	0
October	16	1802	1823	1087		0	0
November	16	1720	1784	596		0	0
December	16	1759	1783	970		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

GREEN BLUE CEF
TAB 2

UIC Entered
Date 4/7/17
Initial DB

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

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

multi-chem
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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 30-08 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345347**		

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

Sample Specifics

Test Date:	1/25/2017
System Temperature 1 (°F):	300
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	130
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0026
pH:	8.40
Calculated TDS (mg/L):	7645.26
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
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):	2553.46	Chloride (Cl):	3000.00
Potassium (K):	18.33	Sulfate (SO_4):	50.00
Magnesium (Mg):	16.44	Bicarbonate (HCO_3):	1891.00
Calcium (Ca):	36.51	Carbonate (CO_3):	
Strontium (Sr):	3.35	Hydroxide(HO):	
Barium (Ba):	8.82	Acetic Acid (CH_3COO)	
Iron (Fe):	42.18	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	6.86	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.00	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.36	Bromine (Br):	
Aluminum (Al):	0.14	Silica (SiO_2):	17.95
Lithium (Li):	2.92	Calcium Carbonate ($CaCO_3$):	
Boron (B):	3.50	Phosphates (PO_4):	10.94
Silicon (Si):	8.39	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
130.00	50.00	1.53	29.87	1.04	4.72	4.34	4.53	3.71	30.66	0.00	0.00	0.00	0.00	0.00	0.00	11.08	3.58
149.00	267.00	1.59	30.14	0.95	4.59	4.28	4.53	3.80	30.66	0.00	0.00	0.00	0.00	0.00	0.00	10.82	3.58
168.00	483.00	1.67	30.48	0.87	4.47	4.25	4.53	3.90	30.67	0.00	0.00	0.00	0.00	0.00	0.00	10.60	3.58
187.00	700.00	1.75	30.78	0.82	4.36	4.25	4.53	3.99	30.67	0.00	0.00	0.00	0.00	0.00	0.00	10.41	3.58
206.00	917.00	1.84	31.04	0.78	4.28	4.27	4.53	4.08	30.67	0.00	0.00	0.00	0.00	0.00	0.00	10.24	3.58
224.00	1133.00	1.95	31.26	0.75	4.23	4.31	4.53	4.17	30.67	0.00	0.00	0.00	0.00	0.00	0.00	10.10	3.58
243.00	1350.00	2.05	31.44	0.74	4.20	4.36	4.53	4.25	30.67	0.00	0.00	0.00	0.00	0.00	0.00	9.98	3.58
262.00	1567.00	2.17	31.57	0.74	4.19	4.43	4.53	4.32	30.67	0.00	0.00	0.00	0.00	0.00	0.00	9.87	3.58
281.00	1783.00	2.28	31.67	0.75	4.21	4.51	4.53	4.39	30.67	0.00	0.00	0.00	0.00	0.00	0.00	9.78	3.58
300.00	2000.00	2.40	31.75	0.76	4.24	4.60	4.53	4.45	30.67	0.00	0.00	0.00	0.00	0.00	0.00	9.70	3.58

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

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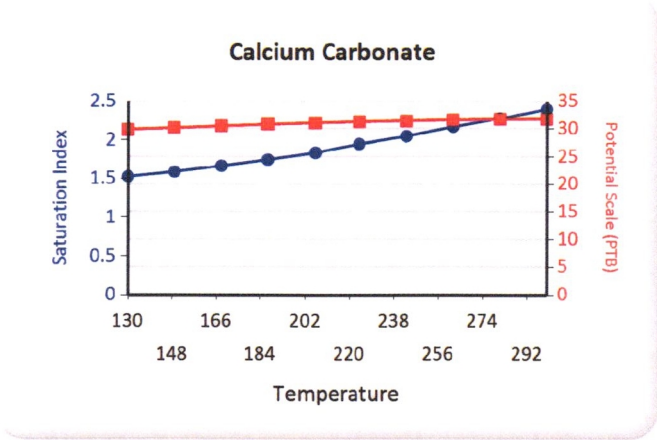
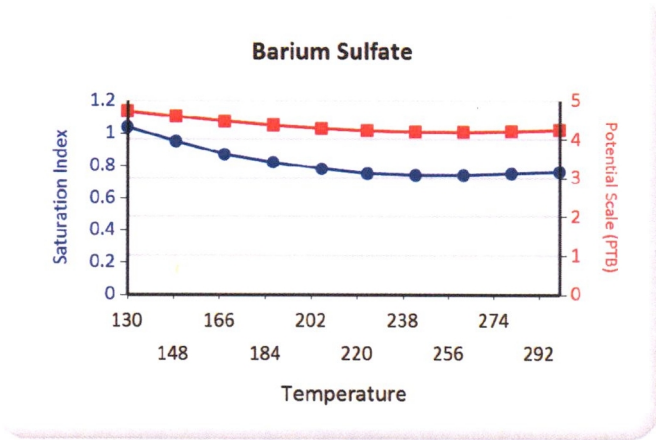
Water Analysis Report

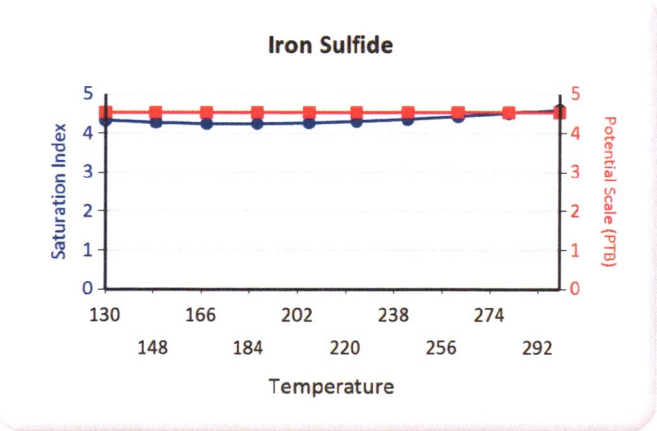
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	4.60	0.00	0.00	3.57	20.27	1.81	12.92	12.79	32.73
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.76	4.60	0.00	0.00	4.31	23.39	2.21	15.19	13.24	32.76
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	4.61	0.00	0.00	5.09	26.50	2.64	17.66	13.76	32.78
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.13	4.61	0.00	0.00	5.86	28.93	3.08	19.79	14.29	32.79
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.29	4.61	0.00	0.00	6.62	30.62	3.51	21.44	14.83	32.80
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	4.61	0.00	0.00	7.36	31.65	3.94	22.60	15.37	32.80
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.56	4.61	0.00	0.00	8.09	32.23	4.36	23.32	15.91	32.80
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	3.67	4.61	0.00	0.00	8.79	32.53	4.78	23.74	16.43	32.80
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	3.77	4.61	0.00	0.00	9.46	32.69	5.18	23.97	16.95	32.80
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	4.61	0.00	0.00	10.11	32.76	5.56	24.10	17.44	32.80

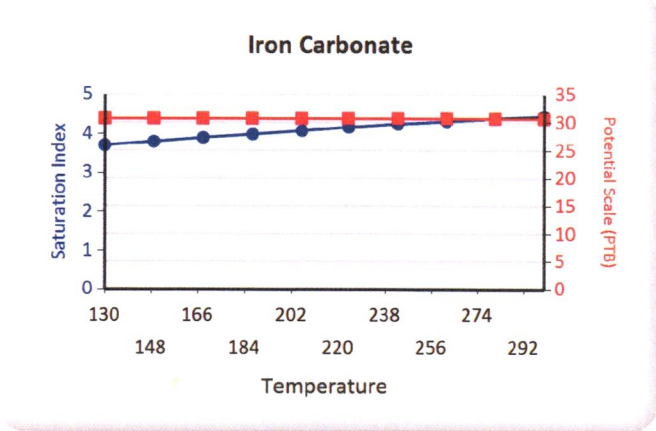
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

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









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

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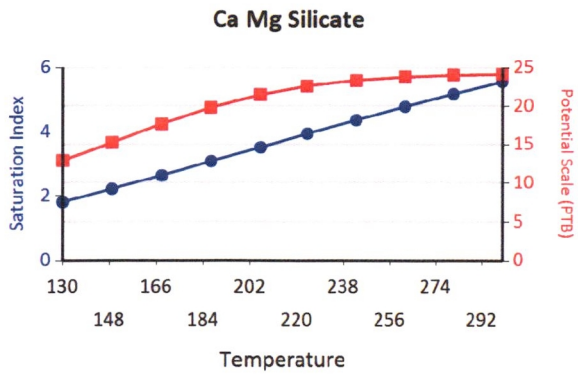
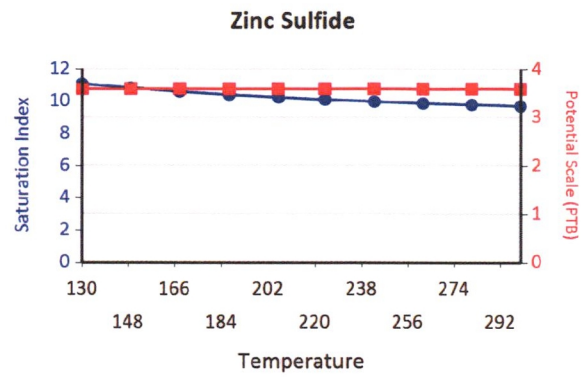
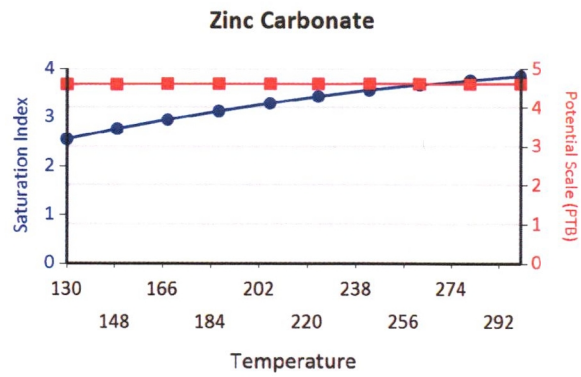
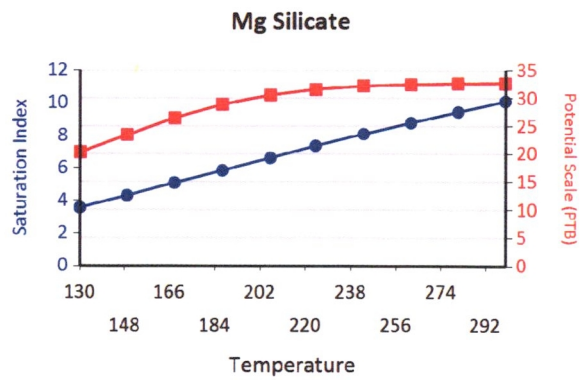
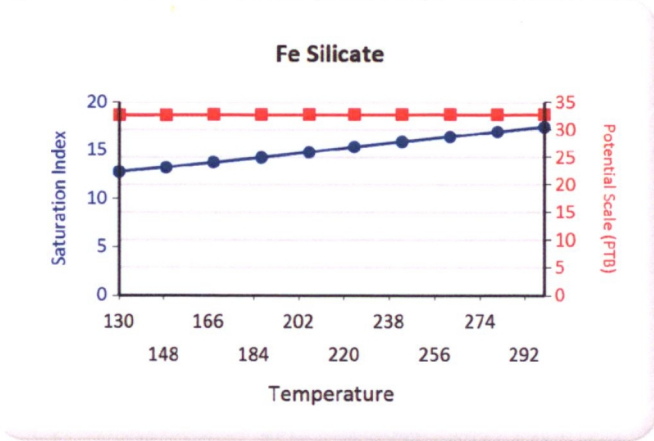
Water Analysis Report










Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
20
15
10
5
0
35
30
25
20
15
10
5
0
130
166
202
238
274
148
184
220
256
292

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

EPA

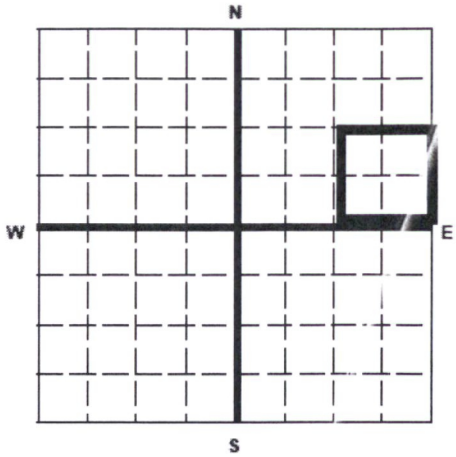
United States Environmental Protection Agency
Washington, DC 20460

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-~~04434~~ 04359

Surface Location Description
___ 1/4 of ___ 1/4 of SE 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

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

Surface Location 2000 ft. frm (N/S) N Line of quarter section
and 650 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 3/3/16
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 30-08

		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	1735	1746	774		0	0
February	15	1767	1834	855		0	0
March	15	1813	1844	1489		0	0
April	15	1783	1828	892		0	0
May	15	1797	1822	1152		0	0
June	15	1810	1851	1300		0	0
July	15	1833	1847	1330		0	0
August	15	1808	1826	1228		0	0
September	15	1791	1839	895		0	0
October	15	1819	1825	1248		0	0
November	15	1817	1830	1232		0	0
December	15	1813	1830	1292		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

GREEN BLUE
TAB 2

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

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 30-08 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327691**		

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

Sample Specifics

Test Date:	1/13/2016
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0083
pH:	8.10
Calculated TDS (mg/L):	15891.94
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	140.00
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):	5745.67	Chloride (Cl):	8000.00
Potassium (K):	22.06	Sulfate (SO_4):	130.00
Magnesium (Mg):	39.04	Bicarbonate (HCO_3):	1830.00
Calcium (Ca):	86.69	Carbonate (CO_3):	
Strontium (Sr):	5.72	Acetic Acid (CH_3COO)	
Barium (Ba):	6.75	Propionic Acid (C_2H_5COO)	
Iron (Fe):	1.93	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.63	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.49	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.05	Silica (SiO_2):	22.91
Aluminum (Al):	0.03	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	1.67	Phosphates (PO_4):	7.89
Boron (B):	3.33	Oxygen (O_2):	
Silicon (Si):	10.71		

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	1.73	69.68	0.85	3.43	0.00	0.00	2.20	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	1.62	67.27	0.88	3.47	0.00	0.00	2.08	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	1.55	65.38	0.91	3.51	0.00	0.00	1.98	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	1.47	63.27	0.96	3.56	0.00	0.00	1.89	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	1.41	61.00	1.01	3.62	0.00	0.00	1.79	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	1.34	58.60	1.08	3.67	0.00	0.00	1.69	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	1.29	56.15	1.16	3.73	0.00	0.00	1.59	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	1.23	53.70	1.25	3.79	0.00	0.00	1.50	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	1.18	51.30	1.36	3.84	0.00	0.00	1.40	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	1.14	49.01	1.49	3.89	0.00	0.00	1.30	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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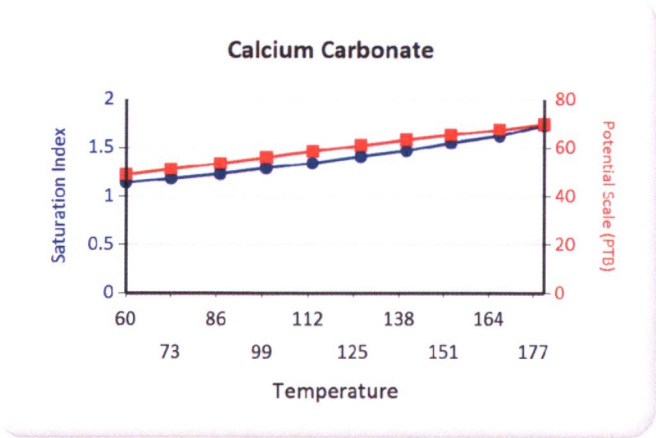
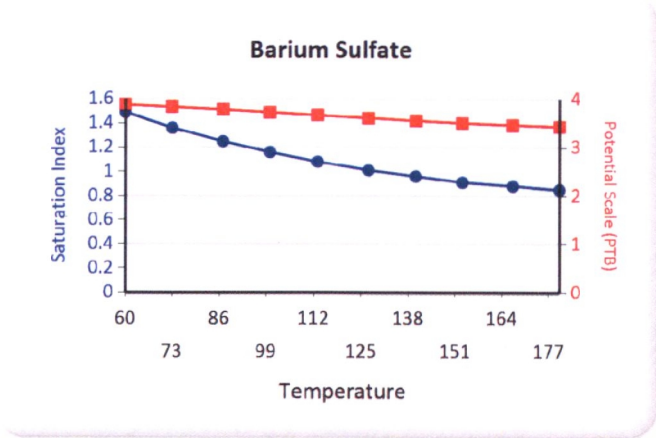
Water Analysis Report

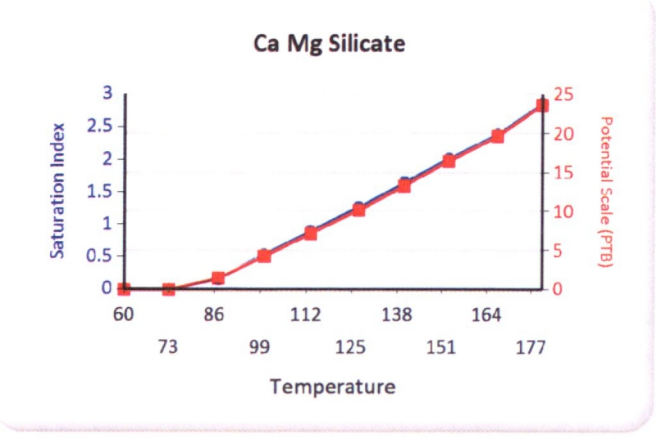
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.41	0.00	0.00	5.32	44.17	2.85	23.64	8.53	1.50
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.41	0.00	0.00	4.55	36.33	2.38	19.67	7.93	1.50
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.40	0.00	0.00	3.91	30.46	2.01	16.54	7.47	1.50
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.39	0.00	0.00	3.26	24.68	1.64	13.35	7.01	1.49
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.37	0.00	0.00	2.61	19.15	1.26	10.20	6.57	1.49
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.34	0.00	0.00	1.96	13.99	0.89	7.17	6.13	1.49
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.30	0.00	0.00	1.31	9.16	0.53	4.26	5.69	1.48
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.22	0.00	0.00	0.65	4.59	0.16	1.45	5.27	1.47
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.00	0.00	0.00	0.00	0.00	0.00	4.85	1.46
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	4.44	1.44

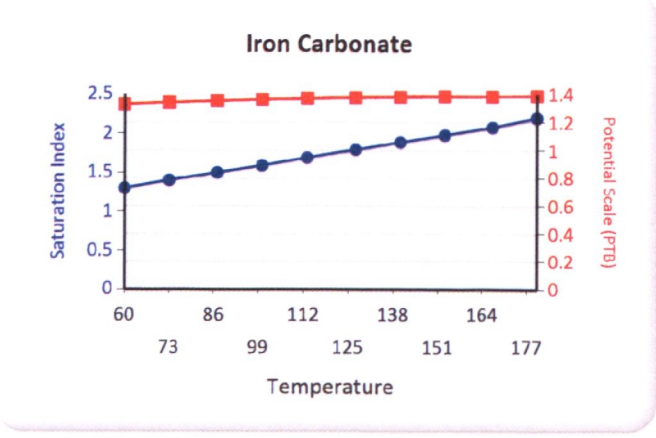
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

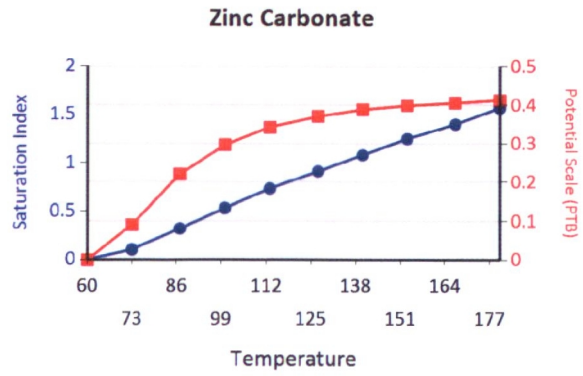
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Fe Silicate

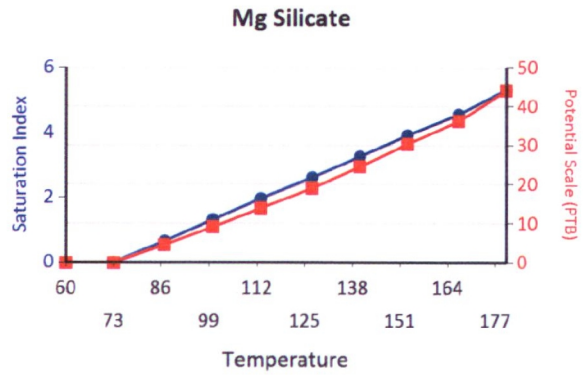


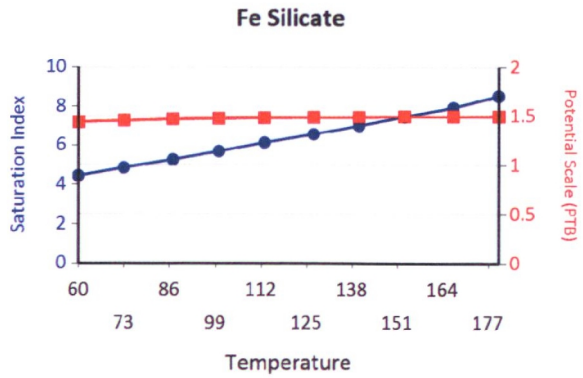







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
2
1.5
1
0.5
0
0.5
0.4
0.3
0.2
0.1
0
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
6
4
2
0
50
40
30
20
10
0
60
86
112
138
164
73
99
125
151
177


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

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

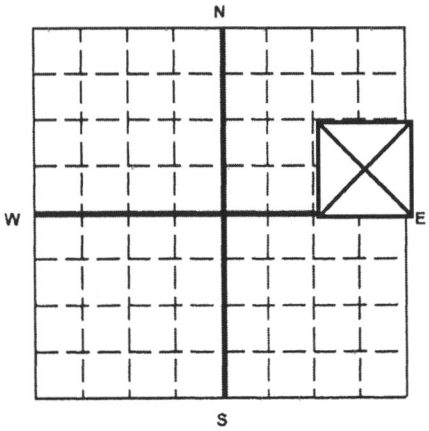
EPA

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	UT2736-04359

Surface Location Description

____ 1/4 of ____ 1/4 of SE 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

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

Surface Location 2000 ft. frm (N/S) N Line of quarter section and 650 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 30-08

		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	1828	1872	474		0	0
February	14	1850	1861	389		0	0
March	14	1816	1848	331		0	0
April	14	1850	1869	620		0	0
May	14	1834	1846	499		0	0
June	14	1398	1862	~~1607~~	1628 inj. mnthly	0	0
July	14	1762	1812	1639		0	0
August	14	1800	1828	1366		0	0
September	14	1770	1819	210		0	0
October	14	1772	1836	1233		0	0
November	14	1837	1855	1434		0	0
December	14	1822	1853	1384		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		2/10/2015

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

U2 Entered
Date 3/31/15
Initial MW

	GREEN	BLUE	CBI
TAB		2	

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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 30-08 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297466**		

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):	1.0044
pH:	8.70
Calculated TDS (mg/L):	11125.44
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	35.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	2936.13	Chloride (Cl):	6000.00
Potassium (K):	46.07	Sulfate (SO_4):	91.00
Magnesium (Mg):	22.85	Bicarbonate (HCO_3):	1952.00
Calcium (Ca):	39.31	Carbonate (CO_3):	
Strontium (Sr):	5.18	Acetic Acid (CH_3COO)	
Barium (Ba):	9.73	Propionic Acid (C_2H_5COO)	
Iron (Fe):	0.32	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.48	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.02	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.10	Silica (SiO_2):	22.25

Notes:
B=6.36 Al=.01 Li=1.41

(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	1.73	33.32	1.59	5.64	3.56	0.18	1.49	0.22	0.00	0.00	0.00	0.00	0.00	0.00	11.86	0.25
88.00	157.00	1.74	33.33	1.51	5.60	3.49	0.18	1.53	0.22	0.00	0.00	0.00	0.00	0.00	0.00	11.68	0.25
97.00	300.00	1.75	33.36	1.43	5.56	3.42	0.18	1.57	0.23	0.00	0.00	0.00	0.00	0.00	0.00	11.51	0.25
106.00	443.00	1.76	33.39	1.36	5.52	3.37	0.18	1.61	0.23	0.00	0.00	0.00	0.00	0.00	0.00	11.35	0.25
115.00	585.00	1.78	33.43	1.29	5.48	3.32	0.18	1.65	0.23	0.00	0.00	0.00	0.00	0.00	0.00	11.20	0.25
124.00	728.00	1.79	33.47	1.24	5.43	3.28	0.18	1.69	0.23	0.00	0.00	0.00	0.00	0.00	0.00	11.06	0.25
133.00	871.00	1.81	33.51	1.18	5.39	3.24	0.18	1.72	0.23	0.00	0.00	0.00	0.00	0.00	0.00	10.93	0.25
142.00	1014.00	1.83	33.55	1.13	5.34	3.21	0.18	1.76	0.23	0.00	0.00	0.00	0.00	0.00	0.00	10.81	0.25
151.00	1157.00	1.86	33.60	1.09	5.29	3.19	0.18	1.80	0.23	0.00	0.00	0.00	0.00	0.00	0.00	10.69	0.25
160.00	1300.00	1.88	33.64	1.05	5.24	3.18	0.18	1.83	0.23	0.00	0.00	0.00	0.00	0.00	0.00	10.58	0.25

		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	0.94	0.29	12.75	0.01	3.23	21.23	1.61	10.27	6.32	0.25
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.29	12.46	0.01	3.55	22.27	1.77	10.78	6.46	0.25
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.30	12.19	0.01	3.89	23.36	1.94	11.32	6.65	0.25
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.30	11.93	0.01	4.24	24.28	2.12	11.79	6.84	0.25
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	0.31	11.68	0.01	4.59	25.03	2.31	12.20	7.04	0.25
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	0.31	11.45	0.01	4.95	25.61	2.50	12.56	7.25	0.25
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.32	11.23	0.01	5.30	26.05	2.69	12.85	7.46	0.25
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68	0.32	11.02	0.01	5.66	26.36	2.88	13.10	7.68	0.25
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	0.32	10.83	0.01	6.02	26.57	3.08	13.30	7.90	0.25
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.86	0.32	10.64	0.01	6.37	26.72	3.27	13.46	8.13	0.25

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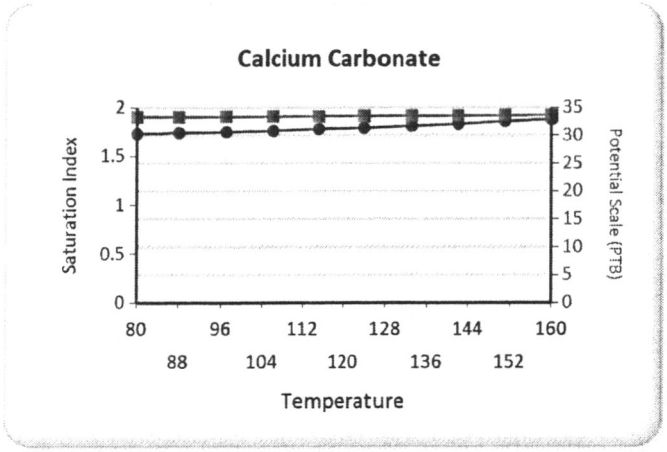
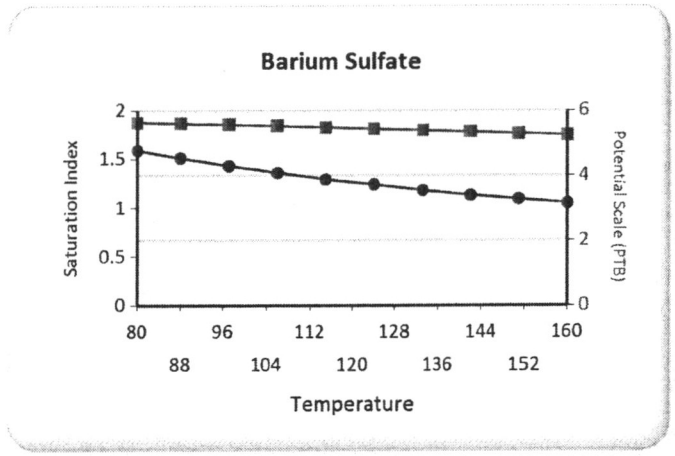
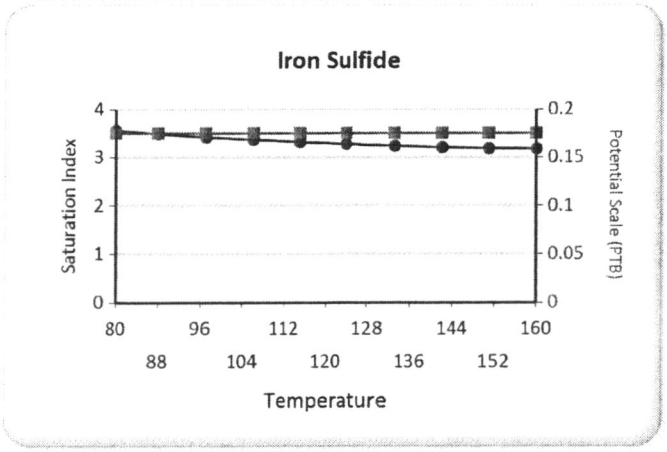
Water Analysis Report

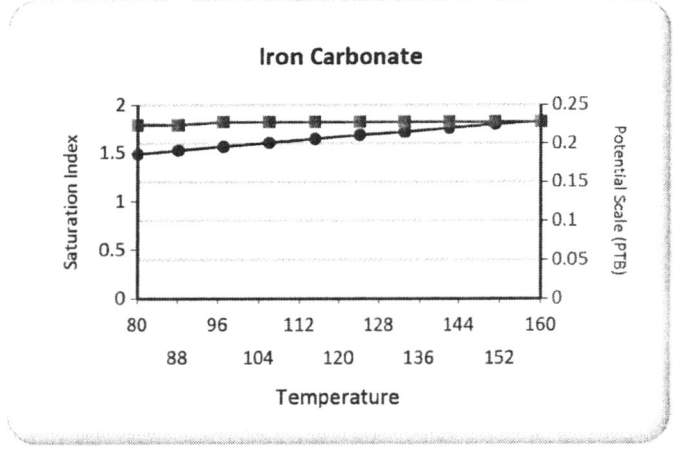
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

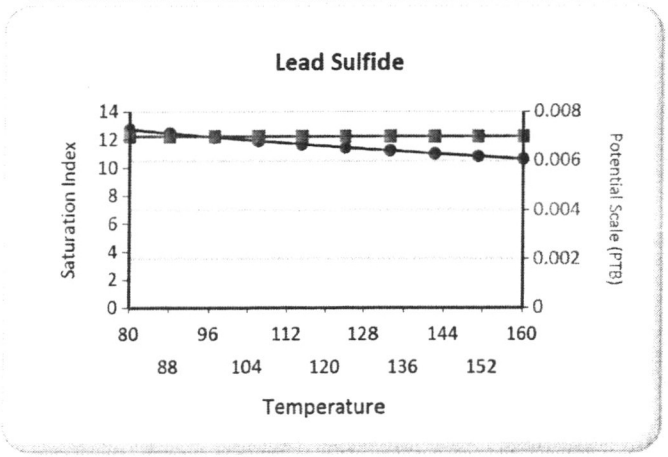
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

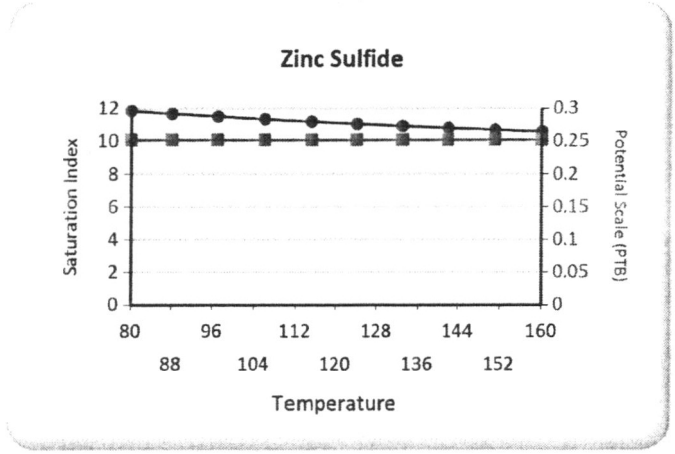












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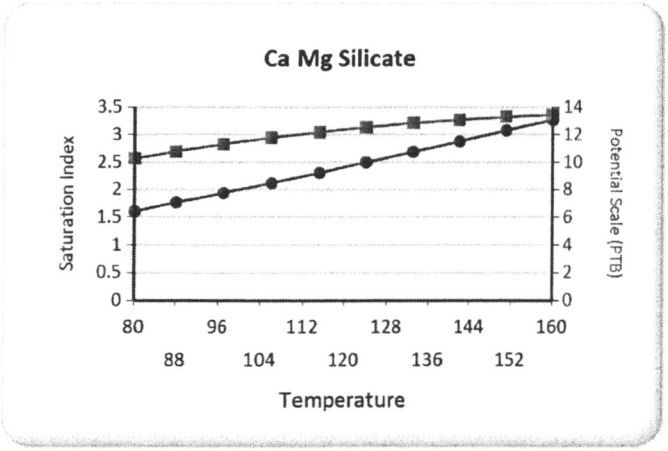
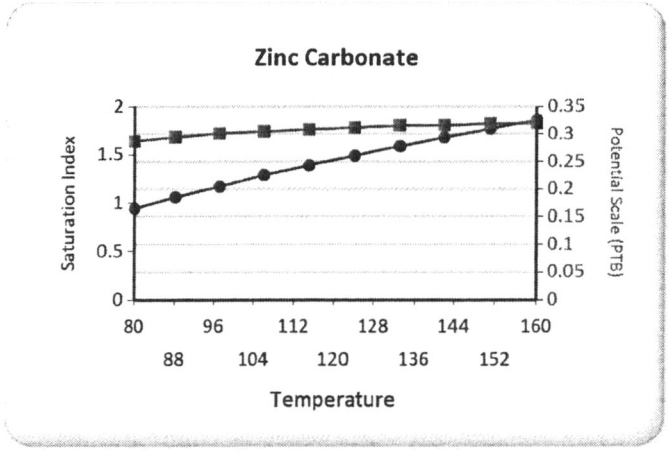
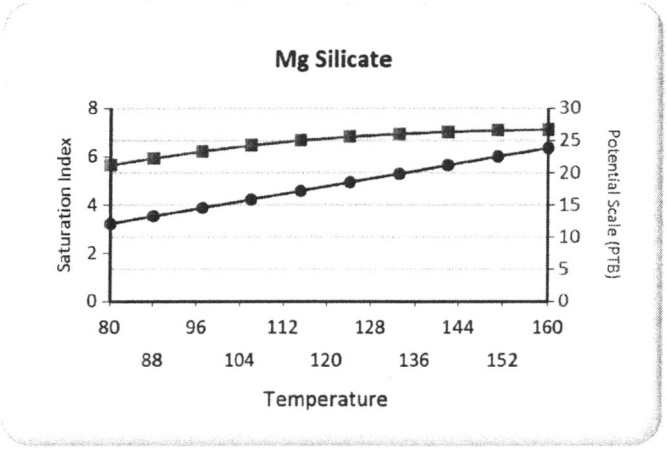
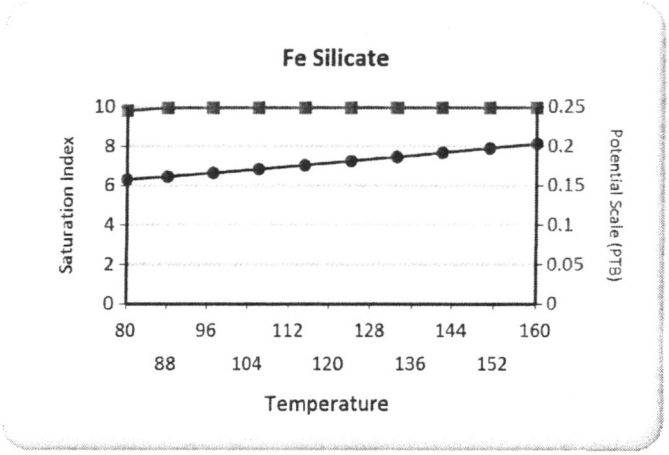
Water Analysis Report









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

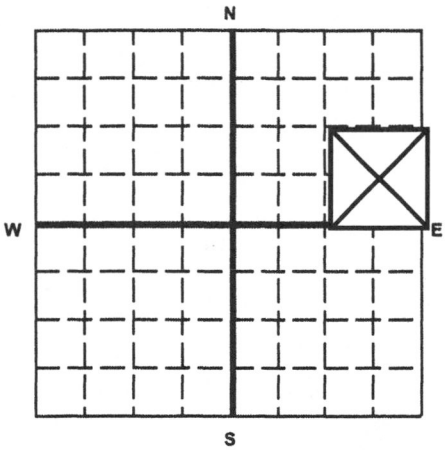
United States Environmental Protection Agency
Washington, DC 20460

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	UT2736-04359

Surface Location Description
____ 1/4 of ____ 1/4 of SE 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

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

Surface Location 2000 ft. frm (N/S) N Line of quarter section
and 650 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 30-08

		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	1744	1853	99		0	0
February	13	1870	1907	359		0	0
March	13	1832	1892	321		0	0
April	13	1900	1940	517		0	0
May	13	1907	1926	475		0	0
June	13	1831	1907	295		0	0
July	13	1841	1906	374		0	0
August	13	1844	1921	544		0	0
September	13	1844	1857	433		0	0
October	13	1843	1874	584		0	0
November	13	1848	1866	550		0	0
December	13	1809	1835	431		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

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

TAB | GREEN | BLUE | CBI
2

U2 Entered
Date 3/21/14
Initial DB

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

multi-chem®
A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **PETROGLYPH ENERGY INC**
Well Name: **UTE TRIBAL 30-08 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263004**

Sales Rep: **James Patry**
Lab Tech: **Gary Winegar**

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):	1.005
pH:	8.50
Calculated TDS (mg/L):	10662.57
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	10.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3748.36	Chloride (Cl):	5000.00
Potassium (K):	65.00	Sulfate (SO_4):	165.00
Magnesium (Mg):	25.00	Bicarbonate (HCO_3):	1561.60
Calcium (Ca):	58.00	Carbonate (CO_3):	
Strontium (Sr):	5.00	Acetic Acid (CH_3COO)	
Barium (Ba):	5.00	Propionic Acid (C_2H_5COO)	
Iron (Fe):	5.30	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.45	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.02	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.30	Silica (SiO_2):	23.54

Notes:
B=5 Al=.06 Li=.95

(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	1.55	43.89	1.75	2.92	4.18	2.92	2.27	3.83	0.00	0.00	0.00	0.00	0.00	0.00	11.50	0.23
73.00	157.00	1.56	43.72	1.60	2.90	4.04	2.92	2.33	3.83	0.00	0.00	0.00	0.00	0.00	0.00	11.19	0.23
86.00	300.00	1.58	44.17	1.47	2.88	3.92	2.92	2.40	3.84	0.00	0.00	0.00	0.00	0.00	0.00	10.92	0.23
100.00	443.00	1.60	44.66	1.36	2.85	3.83	2.92	2.47	3.84	0.00	0.00	0.00	0.00	0.00	0.00	10.67	0.23
113.00	585.00	1.63	45.18	1.26	2.81	3.76	2.92	2.54	3.84	0.00	0.00	0.00	0.00	0.00	0.00	10.44	0.23
126.00	728.00	1.66	45.72	1.18	2.78	3.70	2.92	2.60	3.85	0.00	0.00	0.00	0.00	0.00	0.00	10.24	0.23
140.00	871.00	1.69	46.26	1.10	2.74	3.66	2.92	2.67	3.85	0.00	0.00	0.00	0.00	0.00	0.00	10.05	0.23
153.00	1014.00	1.73	46.79	1.04	2.70	3.63	2.92	2.73	3.85	0.00	0.00	0.00	0.00	0.00	0.00	9.88	0.23
166.00	1157.00	1.78	47.29	0.99	2.67	3.61	2.92	2.79	3.85	0.00	0.00	0.00	0.00	0.00	0.00	9.73	0.23
180.00	1300.00	1.82	47.77	0.95	2.64	3.61	2.92	2.84	3.85	0.00	0.00	0.00	0.00	0.00	0.00	9.58	0.23

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

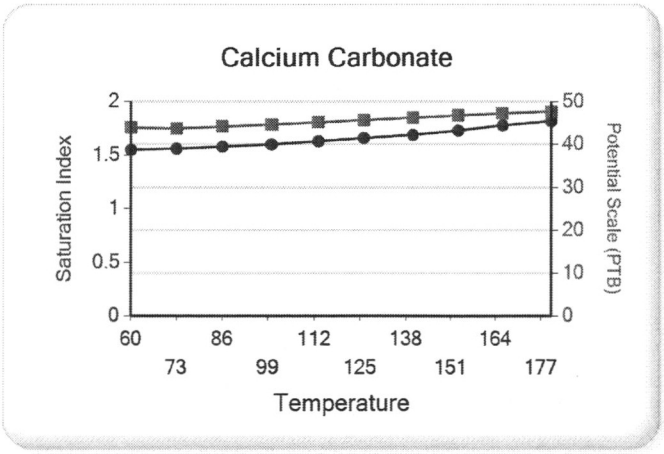
multi-chem®
A HALLIBURTON SERVICE

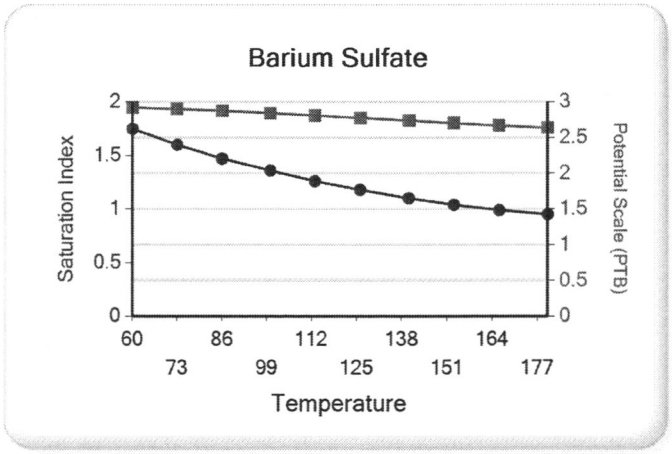
Water Analysis Report

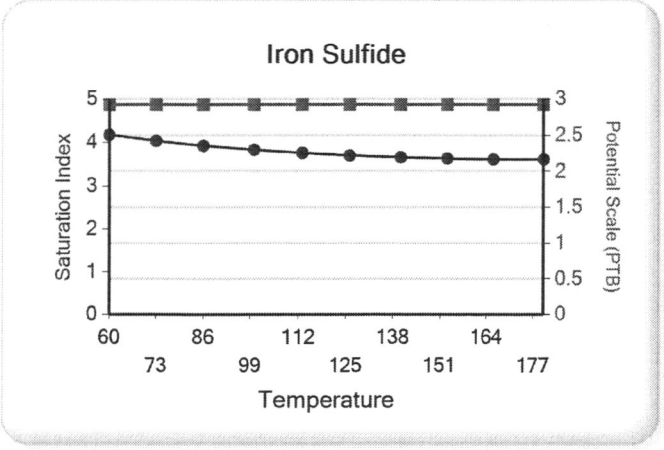
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.15	12.69	0.01	1.28	8.26	0.59	4.11	8.27	4.11
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.21	12.20	0.01	1.75	10.65	0.82	5.35	8.48	4.11
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.24	11.75	0.01	2.28	13.31	1.09	6.77	8.75	4.11
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.26	11.35	0.01	2.81	15.88	1.37	8.14	9.05	4.11
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.27	10.97	0.01	3.36	18.36	1.66	9.42	9.37	4.12
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.28	10.63	0.01	3.92	20.70	1.96	10.59	9.71	4.12
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	0.29	10.31	0.01	4.47	22.86	2.27	11.61	10.06	4.12
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.29	10.02	0.01	5.03	24.72	2.57	12.47	10.42	4.12
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	0.29	9.76	0.01	5.58	26.21	2.88	13.16	10.78	4.12
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	0.30	9.51	0.01	6.13	27.24	3.19	13.68	11.15	4.12

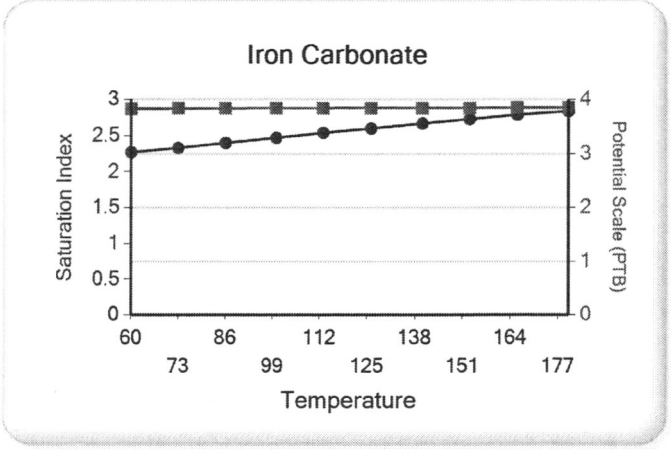
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

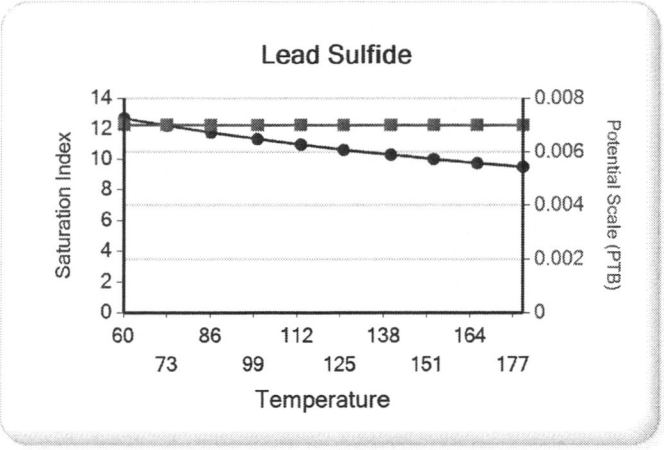
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

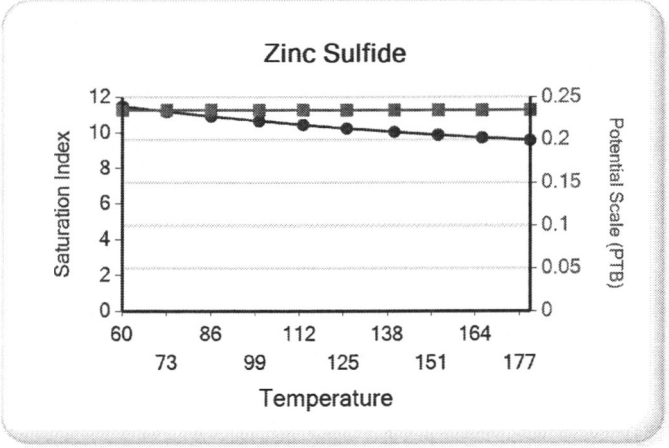


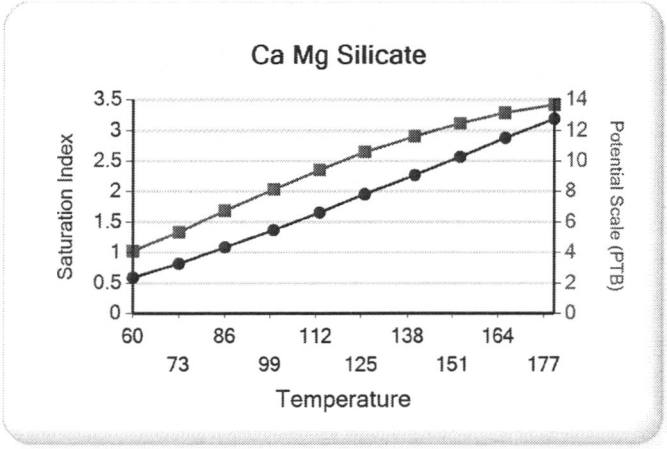


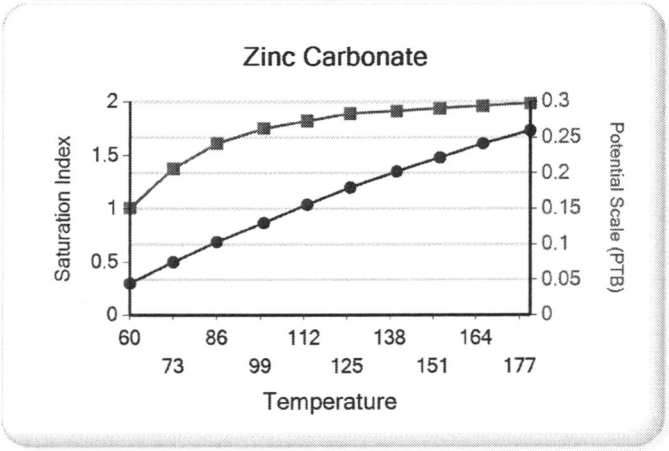


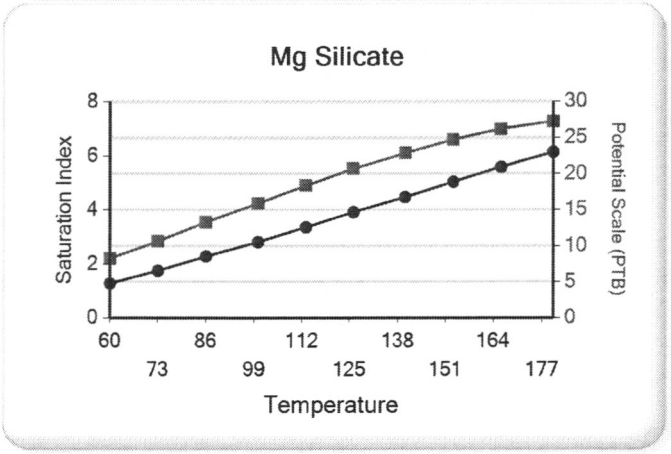


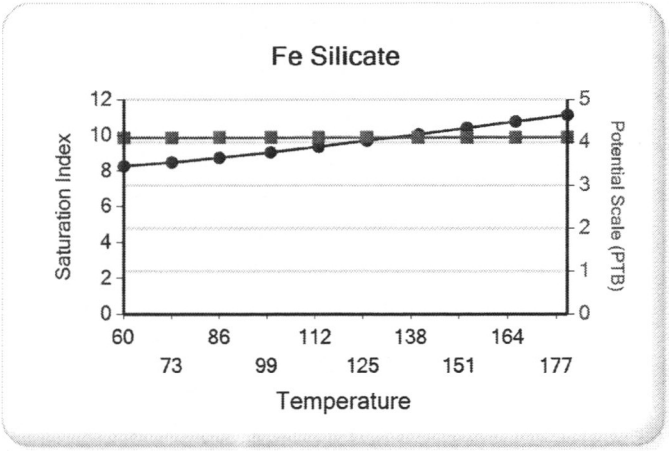

Lead Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


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


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
12
10
8
6
4
2
0
5
4
3
2
1
0
60
86
112
138
164
73
99
125
151
177

RECEIVED

MAY 01 2014

Office of Enforcement, Compliance
and Environmental Justice (UFO)

April 25, 2014

Don Breffle
Mail Code: 8ENF-UFO
US EPA Region 8
1595 Wyncoop Street
Denver, CO 80202-1129

RE: EPA AREA PERMIT NO. UT2736-04359
Mechanical Integrity Test
Standard Five year retesting for Ute Tribal 30-08

Mr. Breffle:
The enclose Mechanical Integrity Test was performed on the above referenced well on April 21, 2014. This MIT was performed because the well was due for the regular five year Mechanical Integrity Test.

If you need any more information please call at (435) 722-5302.

Sincerely,
Petroglyph Operating Co., Inc.

Rodrigo Jurado
Regulatory Compliance Specialist

Encl: MIT for the Ute Tribal 30-08

U2 Entered
Date 5/2/14
Initial DB

	GREEN	BLUE	CB!
TAB		2	

Mechanical Integrity Test
Tubing/Casing Annulus Pressure Test

U.S. Environmental Protection Agency
Underground Injection Control Program
1595 Wynkoop Street, Denver, CO 80202

EPA Witness: _____ Date: 4/21/14
Test conducted by: CHAD STEVENSON
Others present: _____

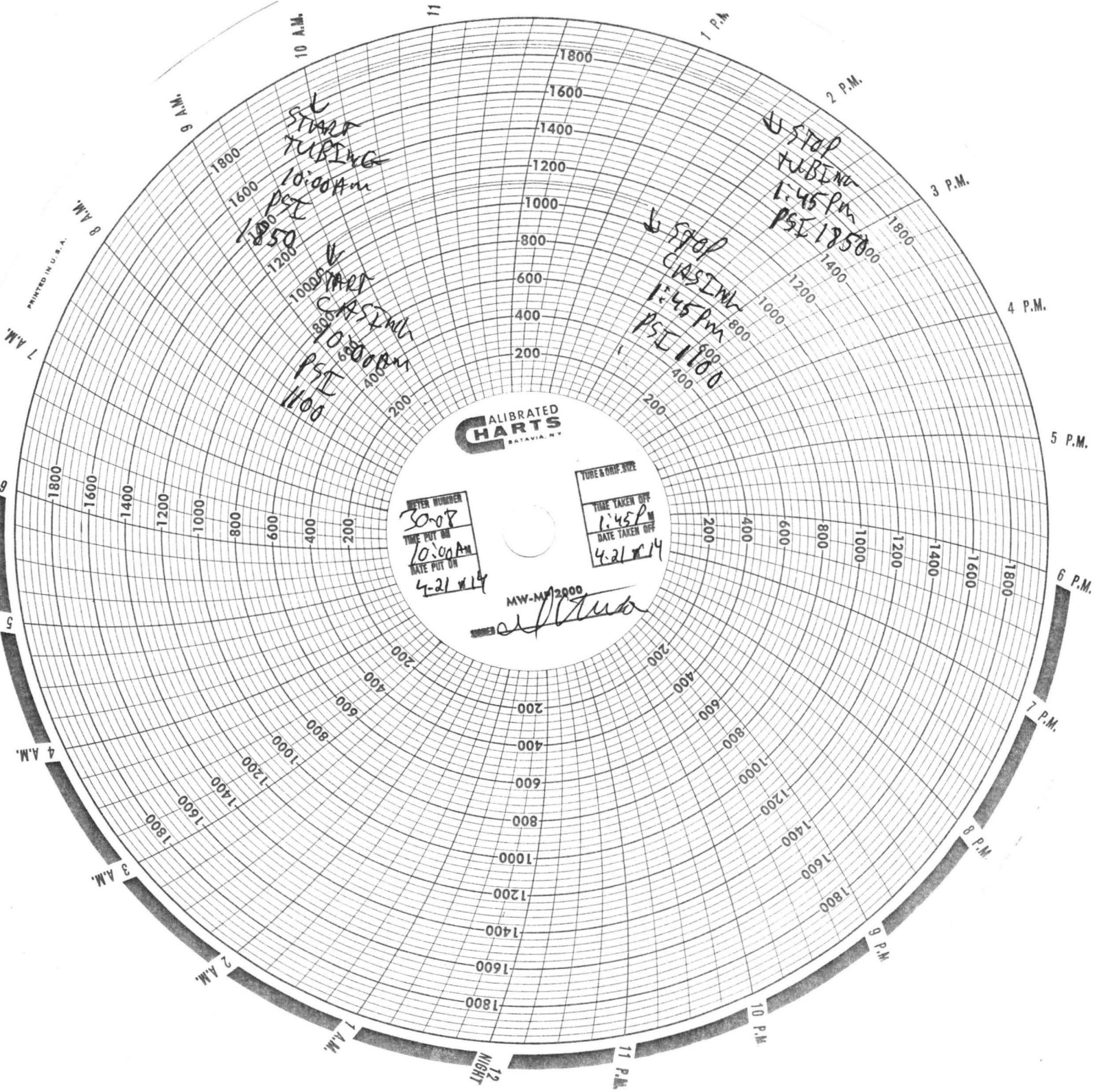
Well Name: 30-08 Type: ER SWD **Status: AC TA UC**
Field: ANTELOPE CREEK
Location: 30-08 Sec: ____ T ____ N / S R ____ E / W County: DUCHESNE State: UT
Operator: PETROGLYPH ENERGY
Last MIT: ____ / ____ / ____ **Maximum Allowable Pressure:** _____ **PSIG**

Regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [ ] Yes [ ] No

Well injecting during test? If Yes, rate: 20 **bpd**
Pre-test annulus pressure: _____ **psig**

MIT DATA TABLE	*Test #1*	*Test #2*	*Test #3*
TUBING		***PRESSURE RECORD***	
Initial Pressure	1850 psig	psig	psig
End of test pressure	1850 psig	psig	psig
CASING / TUBING ANNULUS		***PRESSURE RECORD***	
0 minutes	1100 psig	psig	psig
5 minutes	1100 psig	psig	psig
10 minutes	1100 psig	psig	psig
15 minutes	1100 psig	psig	psig
20 minutes	1100 psig	psig	psig
25 minutes	1100 psig	psig	psig
30 minutes	1100 psig	psig	psig
31/2 *minutes*	1100 psig	psig	psig
____ *minutes*	psig	psig	psig
RESULT	[ ] *Pass* [ ] *Fail*	[ ] *Pass* [ ] *Fail*	[ ] *Pass* [ ] *Fail*

Does the annulus pressure build back up after the test ? If Yes, _____ psig.


CALIBRATED CHARTS
BATAVIA, N.Y.
PRINTED IN U.S.A.
MW-MP 2000
METER NUMBER
3008
TIME PUT ON
10:00AM
DATE PUT ON
4-21-14
TUBE & ORIF. SIZE
TIME TAKEN OFF
1:45PM
DATE TAKEN OFF
4-21-14
STARTED TUBING 10:00AM PSI 1850
STARTED CASING 10:00AM PSI 1100
STOP TUBING 1:45PM PSI 1850
STOP CASING 1:45PM PSI 1180
10 A.M.
11
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
7 A.M.
8 A.M.
9 A.M.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8P2-W-GW

OCT 6 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy Turner
Geology/Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P. O. Box 1839
Hutchinson, KS 67504-1839

RE: UNDERGROUND INJECTION CONTROL (UIC)
Authorization to Inject
Ute Tribal #30-08 (UT04359)
Antelope Creek Waterflood
EPA Area Permit No. UT2736-00000
Duchesne County, Utah

Dear Ms. Turner:

Thank you for the recently submitted information pertaining to the above-referenced area permit and well. The Well Rework Record, injection zone fluid pore pressure survey, fracture treatment reports showing average ISIP of 2201 psi, and the successfully run mechanical integrity test, with chart, on the Ute Tribal #30-08 (UT2736-04359) have been reviewed and approved. Petroglyph Operating Company, Inc, has complied with all of the pertinent permit conditions (Part II, Section C. 2.) for the Antelope Creek Waterflood Area Permit.

Pleased be advised that administrative approval has been granted for injection of Class II fluids into the above referenced well for enhanced recovery of oil and gas. Please also be aware of the monitoring, recordkeeping and reporting requirements described in Part II, Section D of the permit and that the current **maximum surface injection pressure (Pmax) is limited to 2201 psig**, as modified by UIC Minor Permit Modification dated April 11, 1997.

Upon receipt of this letter, the Compliance Officer, Mr. John Carson will then take over routine matters involving well operations, future correspondence, forms, and reports. Please direct all correspondence to the attention of Mr. Carson at the above letterhead **(MAIL CODE ENF-T)** or contact Mr. Carson at (303) 312-6203. Thank you for your continued cooperation.

Sincerely,

D. Edwin Hogle
Director, Groundwater Program
Office of Pollution Prevention
State and Tribal Assistance

Printed on Recycled Paper

Scan under
UT 20736 - 04359
Authorization to Inject -
Final

10/7/97 CW 3143C
P 164 014 373

#30-08

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Ms. Kathy Turner	
Street & Number Geology/Petroleum Engineering Technician	
Post Office, State, and ZIP Code Petroglyph Operating Company, Inc. P.O. Box 1839 Hutchinson, KS 67504-1839	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

10/07/97 CW 3143C

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

OCT 7 1997

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Ms. Kathy Turner
Geology/Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P.O. Box 1839
Hutchinson, KS 67504-1839

4a. Article Number
P 164 014 373

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
OCT - 9 1997

5. Received By: *(Print Name)*
Gail A. Dennis

6. Signature: *(Addressee or Agent)*
X Gail A. Dennis

8. Addressee's Address *(Only if requested and fee is paid)*
OCT 15 1997

PS Form 3811, December 1994 D Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

cc: Mr. Ronald Wopsock, Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe

Ms. Elaine Willie, Environmental Director
Ute Indian Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

CONCURRENCE COPY

Ref: 8P2-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Kathy Turner
Geology/Petroleum Engineering Technician
Petroglyph Operating Company, Inc.
P. O. Box 1839
Hutchinson, KS 67504-1839

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Sincerely,

CEW 8P2-W-GW 9/24/97

8P2-W-GW 9/29/97

Approved-LC OK-DH

Hogle-GW P2-W 10/6/97

D. Edwin Hogle
Director, Groundwater Program
Office of Pollution Prevention
State and Tribal Assistance

cc: Mr. Ronald Wopsock, Chairman
Uintah & Ouray Business Committee
Ute Indian Tribe

Ms. Elaine Willie, Environmental Director
Ute Indian Tribe

Mr. Norman Cambridge
BIA - Uintah & Ouray Agency

Mr. Gil Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining

Mr. Jerry Kenczka
BLM - Vernal District Office

FCD: September 23, 1997, Chuck W., F:\DATA\WP\PETROGLF\AUT-IN30.08