



Date: 19-Nov-14

Well Name: NGL C9 Location: SEC13, T10N, R61W Customer Rep: IRVIN MORSE Field Order # 18427A

Stage: Formation: LYONS Treat Via: CASING Allowable Pressure Csg Well Type: INJECTION

County: State: CO Well Age: NEW PackerType: Csg Size: 7

WELD

Type Of Service: ACID & ROCK SALT Csg Depth 8,511 Tbg Size: Tbg Depth: Liner Size: 4.5

Customer Name: NGL WATER SOLUTIONS Liner Depth: 8,418 Liner Top: 9,817 Liner Bot: 10,200 Total Depth:

Address: Open Hole: Csg Vol: BHT:

Remarks: SAFETY MEETING
PUMP ACID AND ROCK SALT
PUMP CUSTOMER FULID
ISIP = VAC

Perf Depths: 8463 Perfs: 9804 TotalPerfs: 0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	FOAM/FLD (gls)	FLUID (bbbls)
	FLUID	N2/CO2	STP	ANNULUS				
9:07	0.2		209		SAFETY MEETING	0	0	0.0
9:07	0.1		208		PRESSURE TEST	0	0	0.0
9:07	0.1		56		LOAD HOLE	0	4,536	108.0
9:21	7.3		43		ST ACID	0	1,250	30.0
9:24	9.1		34		ST ROCK SALT	0	1,134	27.0
9:27	6.9		33		ST ACID	0	1,250	30.0
9:31	7.7		35		ST ROCK SALT	0	1,638	39.0
9:36	5.0		70		ST ACID	0	1,250	30.0
9:41	10.2		1384		ST ROCK SALT	0	2,478	59.0
9:48	8.1		1383		ST ACID	0	1,250	30.0
9:52	7.3		996		ST FLUSH	0	17,724	422.0
10:02	29.8		1417		ADDCID AND ROCK SALT ON	0	0	0.0
10:11	0.9		30		ISIP = VAC	0	0	0.0
Total:						0	32,510	775.0

Summary

Max Fl. Rate 29.8 Avg Fl. Rate 11.9 Max Psi 1,701 Avg Psi 586

Customer Acknowledgement:

Service Rating:

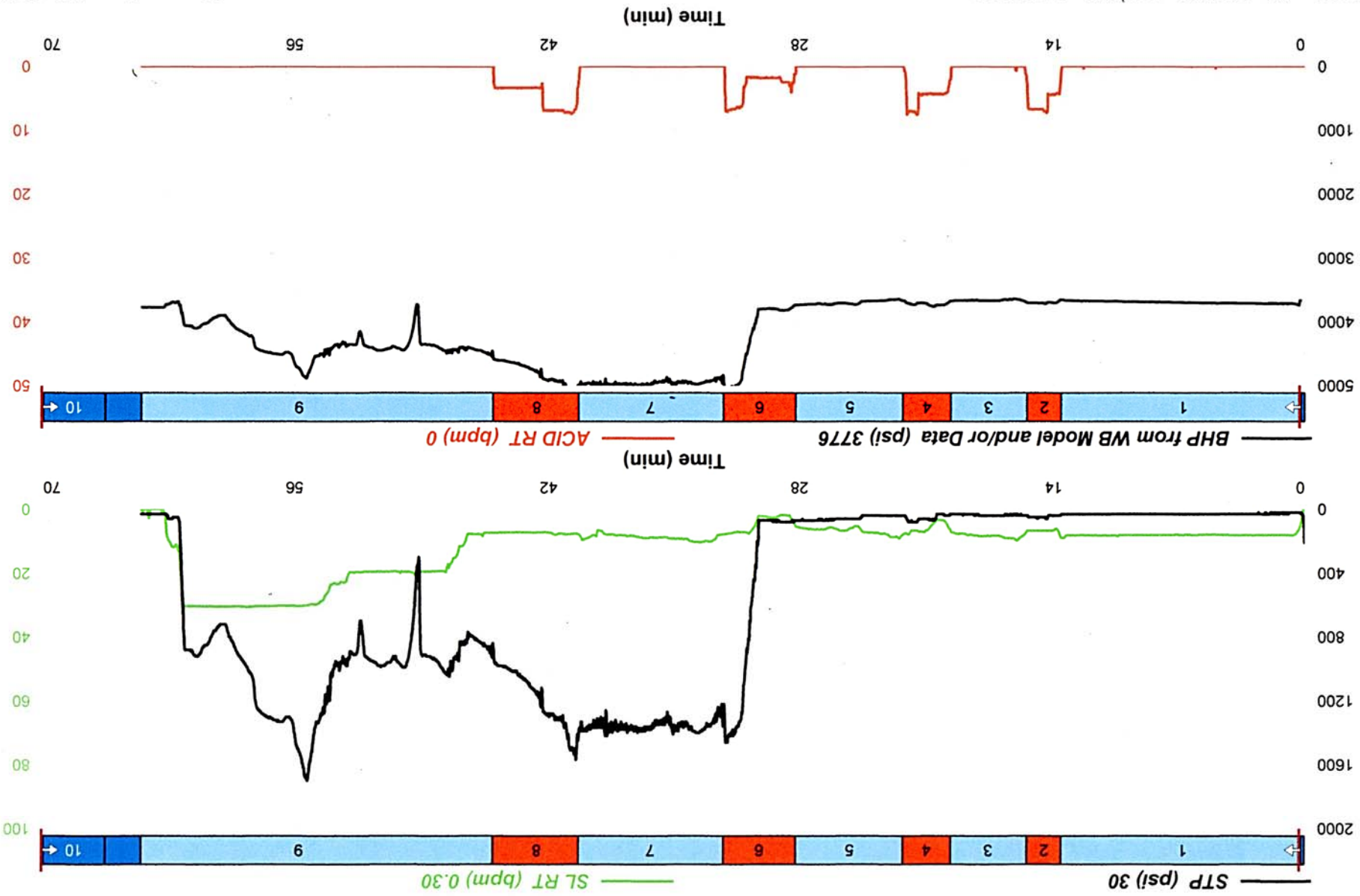
☐ Satisfactory
☐ Unsatisfactory

Treater:

ROCK SALT, S-3, IC-100, 15% HCL
USED CUSTOMERS FULID

PRODUCTS USED

NGL WATER DISPOSAL DJ LLC NGL C9 ROCK SALT JOB



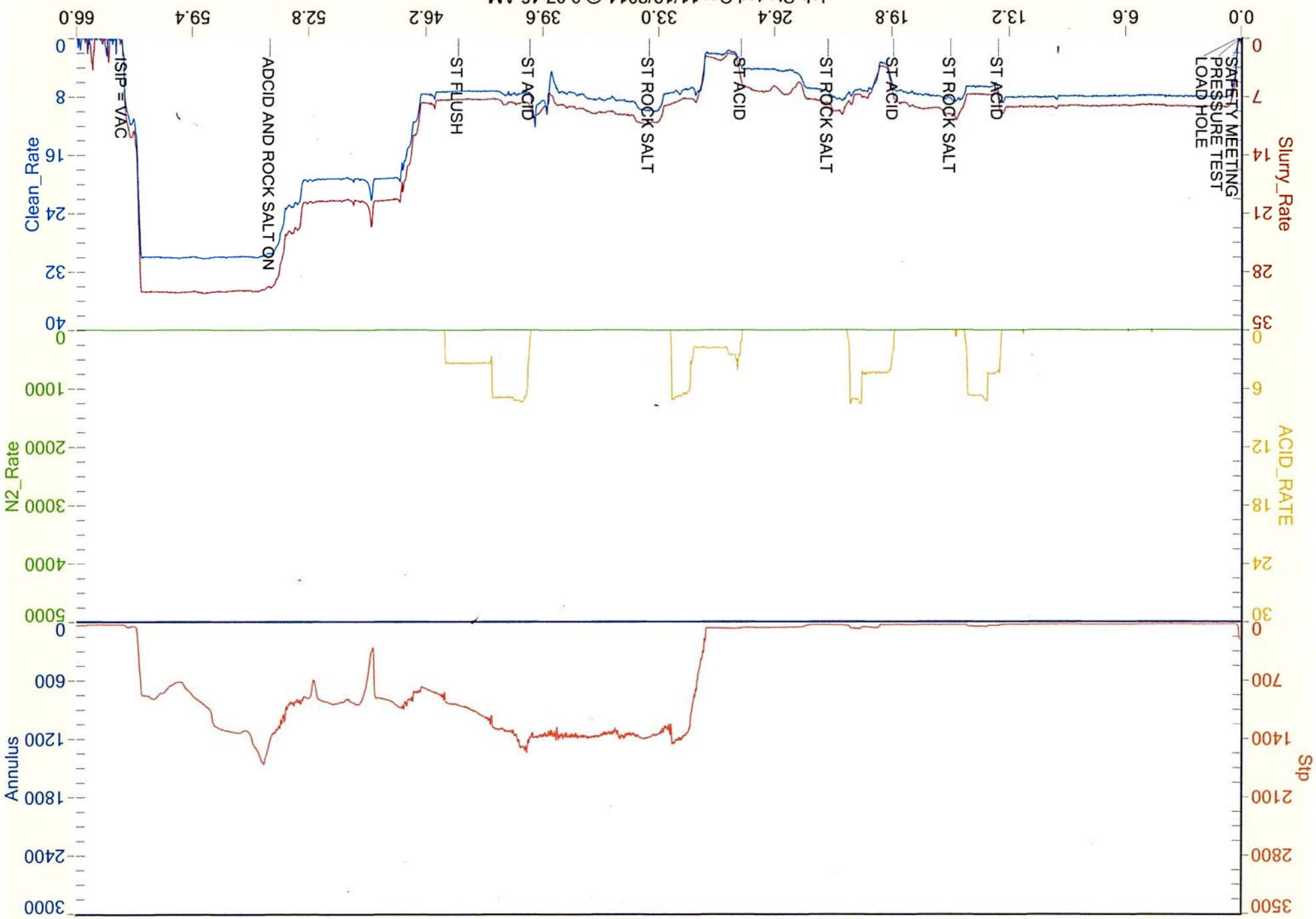
SEC. 13-T10N-R61W LYONS

November 19, 2014

NGL WATER SOLUTIONS

NGL C9 - LYONS - ACID & ROCK SALT

Job Started On: 11/19/2014 @ 9:07:46 AM





Date: 19-Nov-14

Well Name:	Location:	Customer Rep:	Field Order #
NGL C9	SEC13, T10N, R61W	IRVIN MORSE	18427B
Stage:	Formation:	Treat Via:	Allowable Pressure
	LYONS	CASING	Tbg Csg 4,500
County:	State:	Well Age:	PackerDepth: Csg Size:
WELD	CO	NEW	7

Type Of Service:	STEP RATE TEST	Csg Depth	Tbg Size:	Tbg Depth:	Liner Size:
		8,511			4.5

Customer Name:	NGL WATER SOLUTIONS	Liner Depth:	Liner Top:	Liner Bot:	Total Depth:
Address:			8,418	9,817	10,200
		Open Hole:	Csg Vol:	BHT:	

Perf Depths:	Perfs:	TotalPerfs:
8463	9804	0

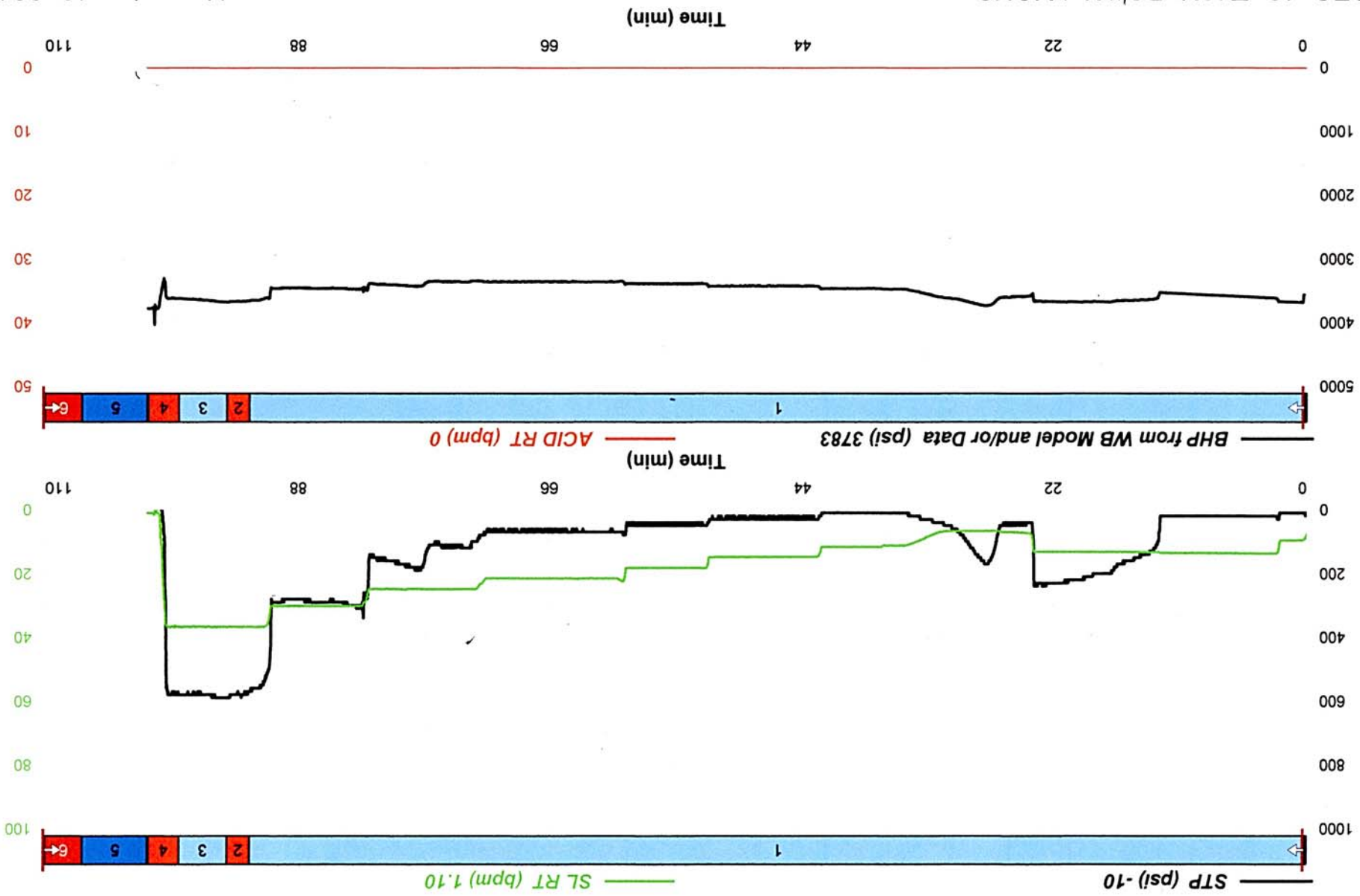
Remarks: SAFETY MEETING
PRESSURE TEST TO 5000 PSI
PUMP CUSTOMER FULID
ISIP = VAC

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	FOAM/FLD (gls)	FLUID (bbbls)
	FLUID	N2/CO2	STP	ANNULUS				
11:41	0.2		231		PRESSURE TEST	0	0	0.0
11:44	10.7		26		ST PUMP IN AT 13 BPM	0	12,390	295.0
12:05	9.0		47		RATE @ 7.5 BPM	0	2,814	67.0
12:15	8.9		31		RATE TO 9.5 BPM	0	1,638	39.0
12:19	11.6		13		RATE TO 12 BPM	0	2,646	63.0
12:24	12.1		17		RATE TO 15 BPM	0	6,216	148.0
12:34	15.7		42		RATE TO 18 BPM	0	5,586	133.0
12:41	18.3		44		RATE TO 21 BPM	0	11,130	265.0
12:53	21.8		74		RATE TO 25 BPM	0	10,500	250.0
13:03	25.3		238		RATE TO 30 BPM	0	10,920	260.0
13:12	30.7		428		RATE TO 35 BPM	0	14,406	343.0
13:22	0.6		-13		ISIP = VAC	0	0	0.0
Total:						0	78,246	1,863.0

Summary
Max Fl. Rate 30.7 Avg Fl. Rate 18.3 Max Psi 592 Avg Psi 135

Customer Acknowledgement:	Service Rating:	Treater:	PRODUCTS USED
	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	QUINN	USED CUSTOMERS FULID

NGL WATER DISPOSAL DJ LLC NGL C9 STEP RATE TEST



SEC. 13-T10N-R61W LYONS

November 19, 2014

NGL WATER SOLUTIONS

NGL C9 - LYONS - STEP RATE TEST

