

# TORC OIL & GAS LTD.

WASKADA UNIT NO. 15

ENHANCED OIL RECOVERY (EOR) ANNUAL REPORT

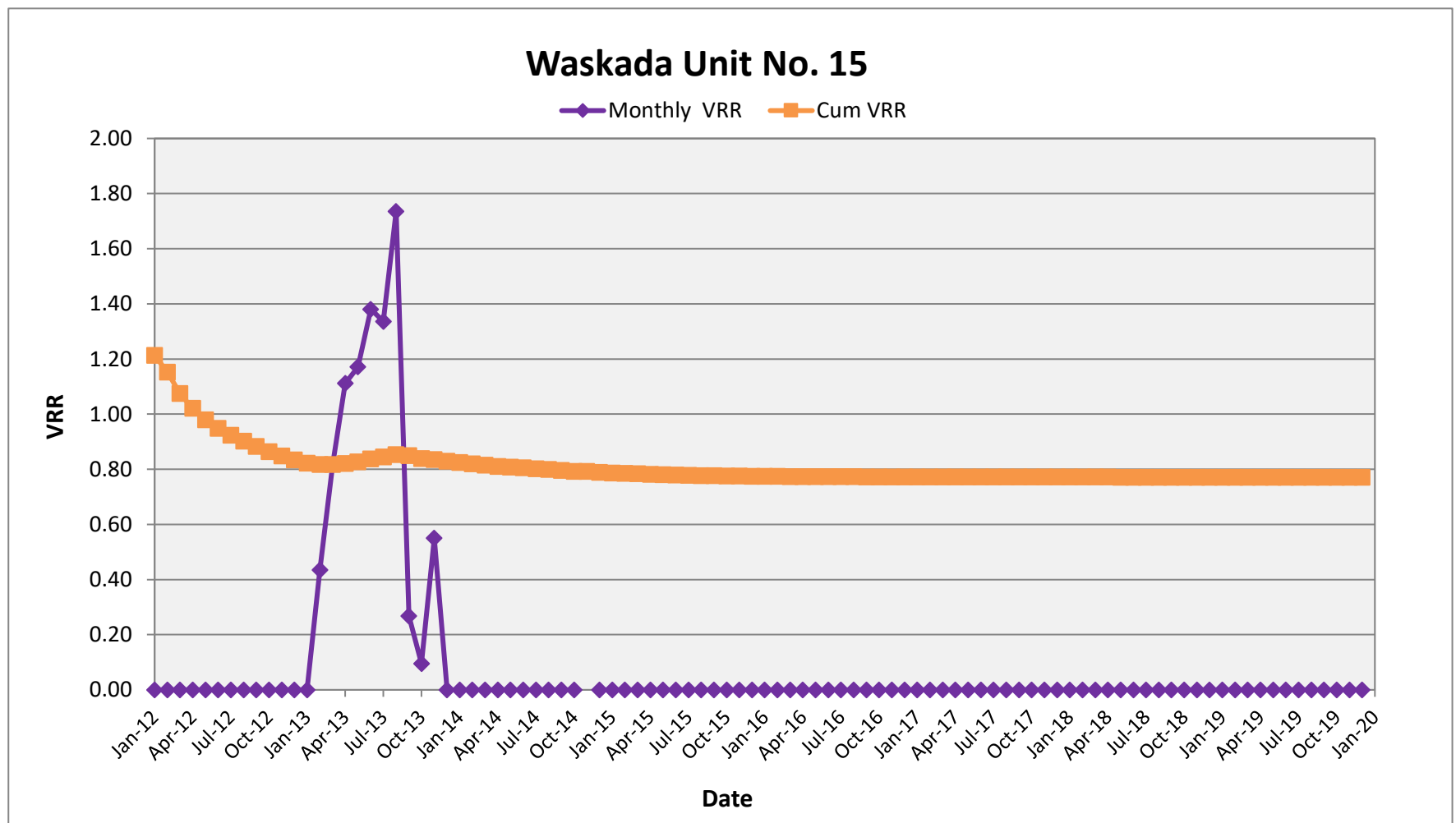
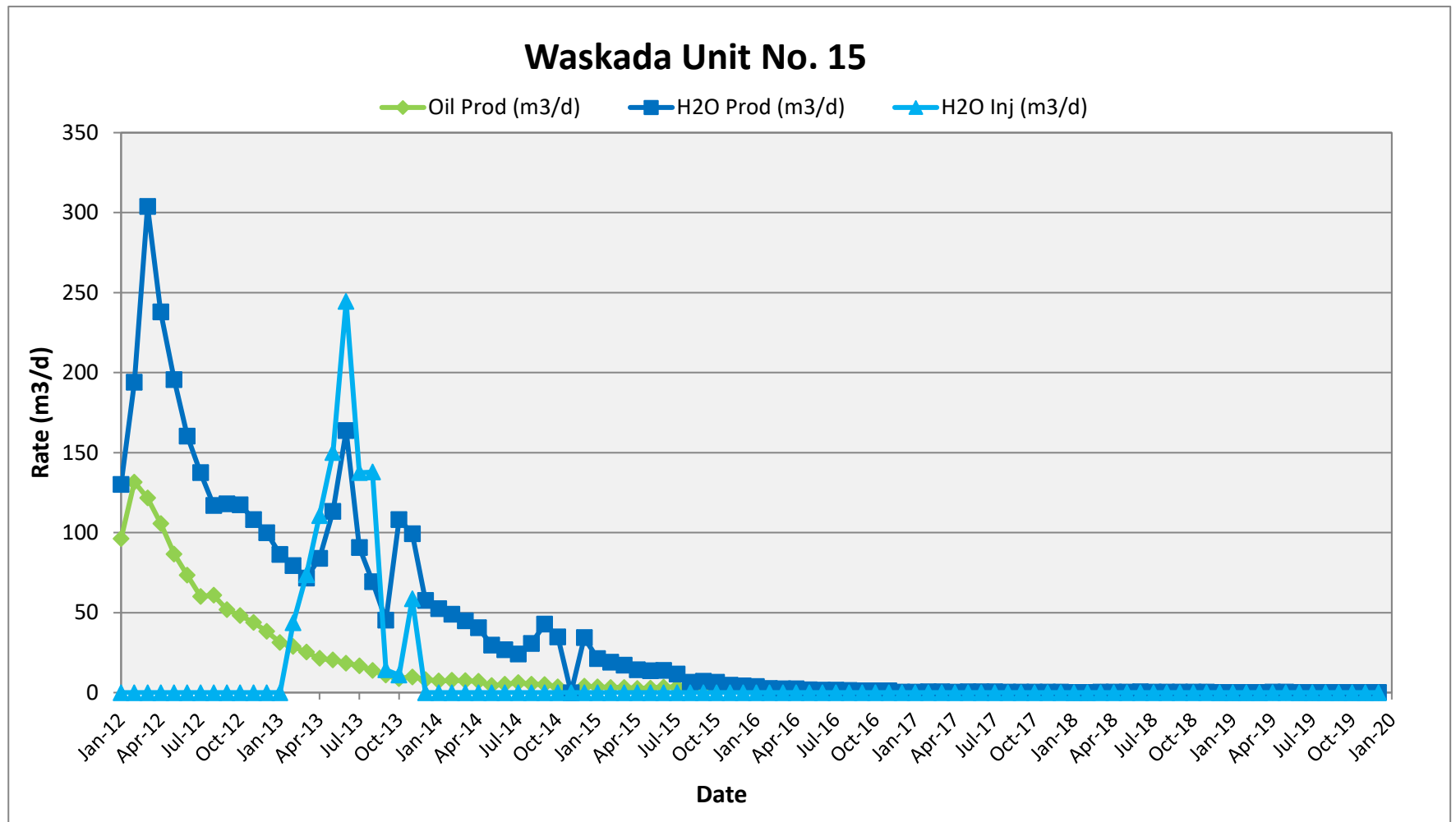
**Discussion:**

Waterflood injection on Waskada Unit #15 was fully suspended in late 2013 due to premature water breakthrough in offsetting producers.

There were no water volumes injected in Waskada Unit #15 in 2019.

**Waskada  
Unit No. 15**

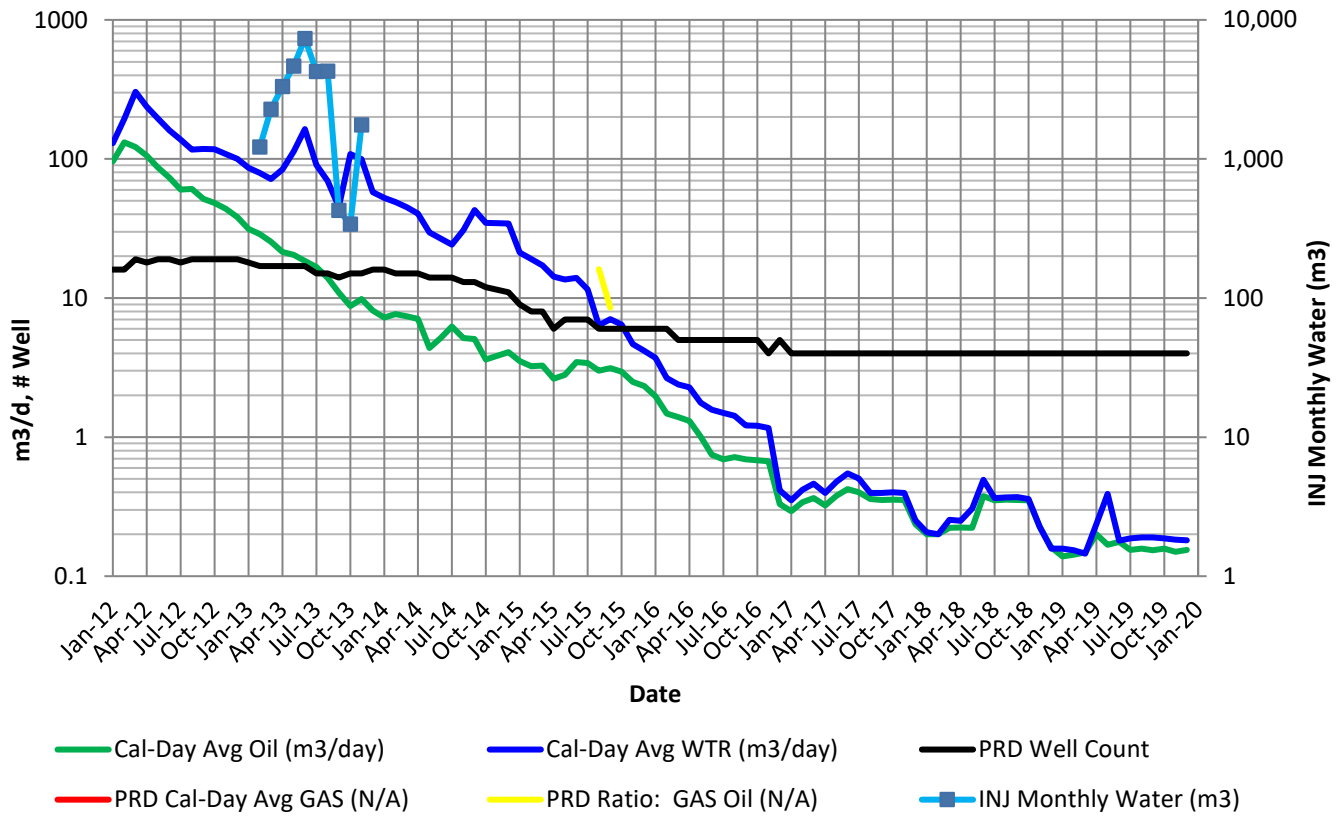
Date	Oil Prod (m3/d)	Gas Prod (e3m3/d)	H2O Prod (m3/d)	H2O Inj (m3/d)	Monthly VRR	Cum VRR	Cum PRD Oil (m3)	Cum PRD Gas (e3m3)	Cum PRD Water (m3)	Cum INJ Water (m3)
Dec-2019	0	-	0	-	0.00	0.771	111,674	2	208,640	223,505



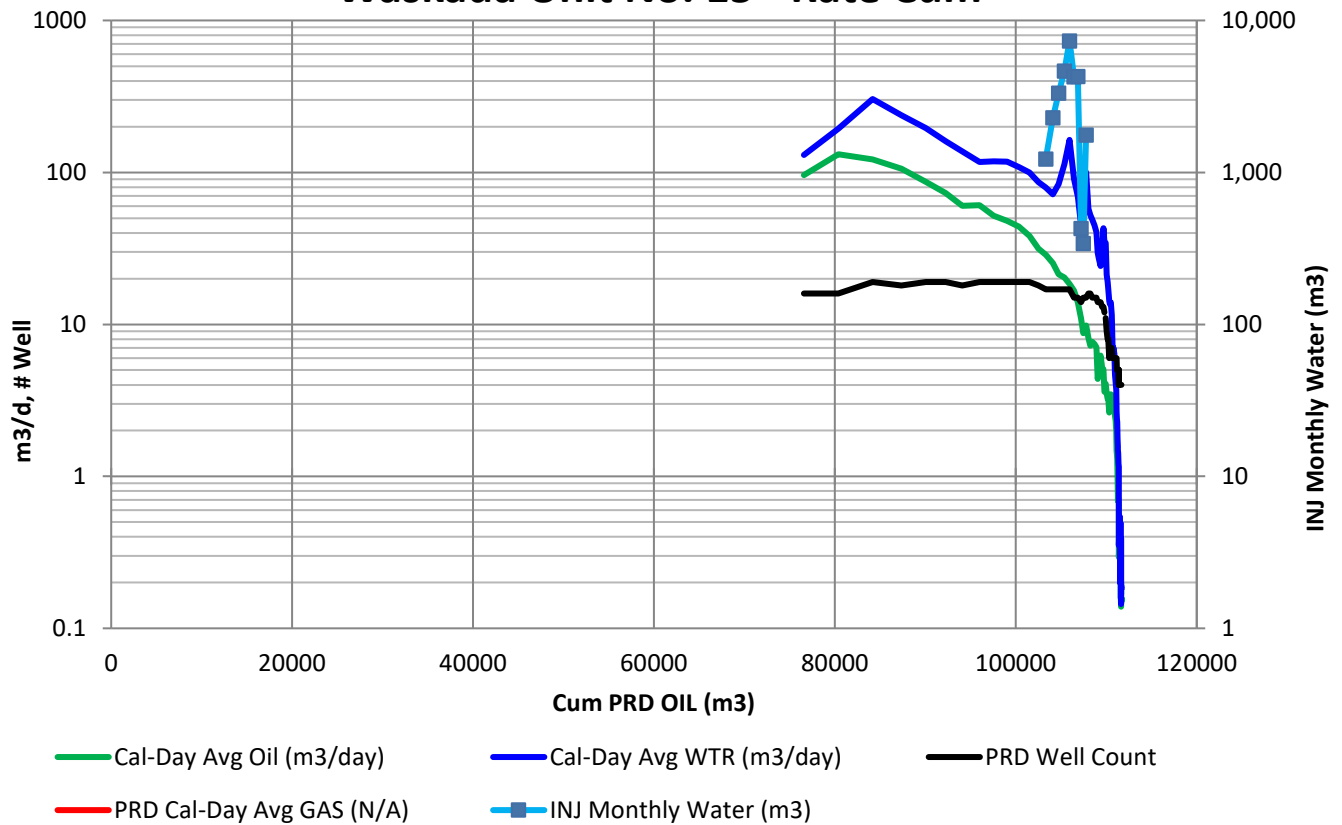
Waskada Unit No. 15 - VRR Table																										
Month	Days	Monthly Oil Prod (bbl)	Monthly Oil Prod (m3)	Monthly Gas Prod (E3m3)	Monthly H2O Prod (bbl)	Monthly H2O Prod (m3)	Monthly H2O Inj (bbl)	Monthly H2O Inj (m3)	Oil Prod (m3/d)	Gas Prod (E3m3/d)	H2O Prod (m3/d)	H2O Inj (m3/d)	Cum Oil (bbl)	Cum Oil (m3)	Cum Gas (E3m3)	Cum H2O (m3)	Cum H2O Inj (m3)	Prod Well Count	GOR (m3/m3)	H2OCut %	Voidage (rm3/d)	Monthly VRR	Cum GOR (m3/m3)	H2OCut %	Cum Void (rm3)	Cum VRR
Jan-12	31	18,748	2,980.7	0	25,385	4,035.7	0	0	96	0	130	0	481,662	76576	0	103977	193634	16	0	57.5%	201	0.00	0.0	57.6%	160405.4	1.213
Feb-12	29	24,015	3,817.9	0	35,386	5,625.8	0	0	132	0	194	0	505,677	80394	0	109603	193634	16	0	59.6%	291	0.00	0.0	57.7%	168846.9	1.153
Mar-12	31	23,730	3,772.7	0	59,267	9,422.4	0	0	122	0	304	0	529,407	84166	0	119025	193634	19	0	71.4%	394	0.00	0.0	58.6%	181071.3	1.075
Apr-12	30	19,962	3,173.5	0	44,900	7,138.3	0	0	106	0	238	0	549,369	87340	0	126163	193634	18	0	69.2%	316	0.00	0.0	59.1%	190562.5	1.021
May-12	31	16,898	2,686.5	0	38,162	6,067.2	0	0	87	0	196	0	566,267	90027	0	132231	193634	19	0	69.3%	260	0.00	0.0	59.5%	198621.7	0.980
Jun-12	30	13,841	2,200.4	0	30,267	4,811.9	0	0	73	0	160	0	580,108	92227	0	137042	193634	19	0	68.6%	215	0.00	0.0	59.8%	205064.4	0.949
Jul-12	31	11,731	1,865.0	0	26,808	4,262.0	0	0	60	0	137	0	591,838	94092	0	141305	193634	18	0	69.6%	182	0.00	0.0	60.0%	210709.5	0.924
Aug-12	31	11,868	1,886.9	0	22,819	3,627.9	0	0	61	0	117	0	603,706	95979	0	144932	193634	19	0	65.8%	162	0.00	0.0	60.2%	215733.2	0.902
Sep-12	30	9,772	1,553.6	0	22,282	3,542.5	0	0	52	0	118	0	613,479	97532	0	148475	193634	19	0	69.5%	156	0.00	0.0	60.4%	220427.9	0.883
Oct-12	31	9,379	1,491.1	0	22,900	3,640.8	0	0	48	0	117	0	622,858	99023	0	152116	193634	19	0	70.9%	153	0.00	0.0	60.6%	225175.7	0.864
Nov-12	30	8,289	1,317.8	0	20,415	3,245.7	0	0	44	0	108	0	631,147	100341	0	155361	193634	19	0	71.1%	141	0.00	0.0	60.8%	229399.9	0.848
Dec-12	31	7,464	1,186.6	0	19,505	3,100.9	0	0	38	0	100	0	638,611	101528	0	158462	193634	19	0	72.3%	128	0.00	0.0	60.9%	233382.8	0.834
Jan-13	31	6,125	973.8	0	16,855	2,679.6	0	0	31	0	86	0	644,736	102502	0	161142	193634	18	0	73.3%	110	0.00	0.0	61.1%	236787.0	0.822
Feb-13	28	5,066	805.5	0	13,993	2,224.6	7,684	1,222	29	0	79	44	649,802	103307	0	163367	194855	17	0	73.4%	101	0.43	0.0	61.3%	239610.9	0.817
Mar-13	31	4,940	785.4	0	13,975	2,221.8	14,355	2,282	25	0	72	74	654,742	104093	0	165588	197137	17	0	73.9%	91	0.82	0.0	61.4%	242417.4	0.817
Apr-13	30	4,039	642.2	0	15,845	2,519.0	20,880	3,320	21	0	84	111	658,782	104735	0	168107	200457	17	0	79.7%	100	1.11	0.0	61.6%	245418.0	0.821
May-13	31	3,976	632.2	0	22,090	3,512.0	29,262	4,652	20	0	113	150	662,758	105367	0	171619	205109	17	0	84.7%	129	1.17	0.0	62.0%	249409.4	0.827
Jun-13	30	3,483	553.8	0	30,898	4,912.2	46,152	7,337	18	0	164	245	666,241	105921	0	176532	212446	17	0	89.9%	178	1.38	0.0	62.5%	254750.9	0.838
Jul-13	31	3,257	517.8	0	17,687	2,811.9	26,795	4,260	17	0	91	137	669,498	106439	0	179343	216706	15	0	84.4%	103	1.34	0.0	62.8%	257955.2	0.844
Aug-13	31	2,720	432.4	0	13,518	2,149.2	26,889	4,275	14	0	69	138	672,218	106871	0	181493	220981	15	0	83.3%	80	1.74	0.0	62.9%	260430.9	0.853
Sep-13	30	2,064	328.1	0	8,528	1,355.8	2,684	427	11	0	45	14	674,282	107199	0	182848	221408	14	0	80.5%	53	0.27	0.0	63.0%	262033.2	0.849
Oct-13	31	1,708	271.5	0	21,105	3,355.3	2,135	339	9	0	108	11	675,990	107471	0	186204	221748	15	0	92.5%	115	0.10	0.0	63.4%	265603.9	0.839
Nov-13	30	1,858	295.4	0	18,753	2,981.5	11,057	1,758	10	0	99	59	677,848	107766	0	189185	223505	15	0	91.0%	107	0.55	0.0	63.7%	268816.2	0.836
Dec-13	31	1,585	252.0	0	11,255	1,789.3	0	0	8	0	58	0	679,434	108018	0	190975	223505	16	0	87.7%	64	0.00	0.0	63.9%	270798.6	0.830
Jan-14	31	1,412	224.5	0	10,236	1,627.3	0	0	7	0	52	0	680,846	108243	0	192602	223505	16	0	87.9%	58	0.00	0.0	64.0%	272598.1	0.824
Feb-14	28	1,352	214.9	0	8,627	1,371.5	0	0	8	0	49	0	682,197	108457	0	193973	223505	15	0	86.5%	55	0.00	0.0	64.1%	274133.5	0.819
Mar-14	31	1,445	229.7	0	8,760	1,392.7	0	0	7	0	45	0	683,642	108687	0	195366	223505	15	0	85.8%	51	0.00	0.0	64.3%	275701.0	0.815
Apr-14	30	1,334	212.1	0	7,640	1,214.6	0	0	7	0	40	0	684,976	108899	0	196581	223505	15	0	85.1%	46	0.00	0.0	64.4%	277076.6	0.811
May-14	31	853	135.6	0	5,774	917.9	0	0	4	0	30	0	685,829	109035	0	197499	223505	14	0	87.1%	33	0.00	0.0	64.4%	278098.1	0.808
Jun-14	30	973	154.7	0	5,065	805.3	0	0	5	0	27	0	686,802	109189	0	198304	223505	14	0	83.9%	31	0.00	0.0	64.5%	279020.4	0.805
Jul-14	31	1,216	193.3	0	4,726	751.3	0	0	6	0	24	0	688,018	109383	0	199055	223505	14	0	79.5%	29	0.00	0.0	64.5%	279916.7	0.803
Aug-14	31	1,004	159.7	0	5,978	950.4	0	0	5	0	31	0	689,022	109542	0	200006	223505	13	0	85.6%	35	0.00	0.0	64.6%	280988.5	0.799
Sep-14	30	955	151.9	0	8,098	1,287.5	0	0	5	0	43	0	689,977	109694	0	201293	223505	13	0	89.4%	47	0.00	0.0	64.7%	282393.4	0.796
Oct-14	31	704	111.9	0	6,770	1,076.3	0	0	4	0	35	0	690,681	109806	0	202369	223505	12	0	90.6%	38	0.00	0.0	64.8%	283556.9	0.792
Nov-14	30	0	0.0	0	0	0.0	0	0	0	0	0	0	690,681	109806	0	202369	223505	0			0		0.0	64.8%	283556.9	0.792
Dec-14	31	794	126.3	0	6,691	1,063.7	0	0	4	0	34	0	691,475	109932	0	203433	223505	11	0	89.4%	37	0.00	0.0	64.9%	284718.1	0.789
Jan-15	31	685	108.8	0	4,143	658.6	0	0	4	0	21	0	692,160	110041	0	204092	223505	9	0	85.8%	24	0.00	0.0	65.0%	285459.6	0.787
Feb-15	28	570	90.6	0	3,360	534.2	0	0	3	0	19	0	692,730	110132	0	204626	223505	8	0	85.5%	22	0.00	0.0	65.0%	286062.7	0.785
Mar-15	31	636	101.1	0	3,339	530.8	0	0	3	0	17	0	693,366	110233	0	205157	223505	8	0	84.0%	20	0.00	0.0	65.0%	286670.1	0.784
Apr-15	30	496	78.8	0	2,695	428.5	0	0	3	0	14	0	693,862	110312	0	205585	223505	6	0	84.5%	16	0.00	0.0	65.1%	287158.3	0.782
May-15	31	546	86.8	0	2,656	422.3	0	0	3	0	14	0	694,408	110399	0	206008	223505	7	0	82.9%	16	0.00	0.0	65.1%	287646.1	0.781
Jun-15	30	654	104.0	0	2,627	417.7	0	0	3	0	14	0	695,063	110503	0	206425	223505	7	0	80.1%	17	0.00	0.0	65.1%	288141.9	0.780
Jul-15	31	665	105.7	0	2,247	357.2	0	0	3	0	12	0	695,728	110609	0	206783	223505	7	0	77.2%	14	0.00	0.0	65.2%	288578.1	0.778
Aug-15	31	585	93.0	1.5	1,245	198.0	0	0	3	0	6	0	696,313	110702	2	206980	223505	6	16	68.0%	12	0.00	0.0	65.2%	288951.2	0.777
Sep-15	30	590	93.8	0.8	1,328	211.1	0	0	3	0	7	0	696,903	110795	2	207192	223505	6	9	69.2%	11	0.00	0.0	65.2%	289288.5	0.777
Oct-15	31	577	91.7	0	1,254	199.3	0	0	3	0	6	0	697,480	110887	2	207391	223505	6	0	68.5%	9	0.00	0.0	65.2%	289555.8	0.776
Nov-15	30	470	74.7	0	877	139.5	0	0	2	0	5	0	697,950	110962	2	207530	223505	6	0	65.1%	6	0.00	0.0	65.2%	289750.6	0.775
Dec-15	31	455	72.3	0	811	129.0	0	0	2	0	4	0	698,405	111034	2	207659	223505	6	0	64.1%	6	0.00	0.0	65.2%	289933.0	0.775
Jan-16	31	383	60.8	0	723	115.0	0	0	2	0	4	0	698,788	111095	2	207774	223505	6	0	65.4%	5	0.00	0.0	65.2%	290092.9	0.774
Feb-16	29	270	42.9	0	485	77.1	0	0	1	0	3	0	699,058	111138	2	207851	223505	6	0	64.3%	4	0.00	0.0	65.2%	290201.8	0.774
Mar-16	31	271	43.1	0	466	74.1	0	0	1	0	2	0	69													

Waskada Unit No. 15 - VRR Table																										
Month	Days	Monthly Oil Prod (bbl)	Monthly Oil Prod (m3)	Monthly Gas Prod (E3m3)	Monthly H2O Prod (bbl)	Monthly H2O Prod (m3)	Monthly H2O Inj (bbl)	Monthly H2O Inj (m3)	Oil Prod (m3/d)	Gas Prod (E3m3/d)	H2O Prod (m3/d)	H2O Inj (m3/d)	Cum Oil (bbl)	Cum Oil (m3)	Cum Gas (E3m3)	Cum H2O (m3)	Cum H2O Inj (m3)	Prod Well Count	GOR (m3/m3)	H2OCut %	Voidage (rm3/d)	Monthly VRR	Cum GOR (m3/m3)	H2OCut %	Cum Void (rm3)	Cum VRR
Sep-17	30	67	10.6	0	75	11.9	0	0	0	0	0	0	701,259	111488	2	208427	223505	4	0	52.9%	1	0.00	0.0	65.2%	291036.0	0.772
Oct-17	31	69	11.0	0	78	12.4	0	0	0	0	0	0	701,328	111499	2	208440	223505	4	0	53.0%	1	0.00	0.0	65.1%	291056.5	0.772
Nov-17	30	67	10.6	0	75	11.9	0	0	0	0	0	0	701,394	111509	2	208452	223505	4	0	52.9%	1	0.00	0.0	65.1%	291076.2	0.772
Dec-17	31	46	7.3	0	49	7.8	0	0	0	0	0	0	701,440	111517	2	208459	223505	4	0	51.7%	0	0.00	0.0	65.1%	291089.3	0.772
Jan-18	31	39	6.2	0	40	6.4	0	0	0	0	0	0	701,479	111523	2	208466	223505	4	0	50.8%	0	0.00	0.0	65.1%	291100.3	0.772
Feb-18	28	35	5.6	0	35	5.6	0	0	0	0	0	0	701,515	111529	2	208471	223505	4	0	50.0%	0	0.00	0.0	65.1%	291110.0	0.772
Mar-18	31	43	6.9	0	50	7.9	0	0	0	0	0	0	701,558	111535	2	208479	223505	4	0	53.4%	0	0.00	0.0	65.1%	291123.0	0.772
Apr-18	30	42	6.7	0	47	7.5	0	0	0	0	0	0	701,600	111542	2	208487	223505	4	0	52.8%	0	0.00	0.0	65.1%	291135.4	0.772
May-18	31	43	6.9	0	60	9.5	0	0	0	0	0	0	701,644	111549	2	208496	223505	4	0	57.9%	0	0.00	0.0	65.1%	291150.0	0.772
Jun-18	30	71	11.3	0	93	14.8	0	0	0	0	0	0	701,715	111560	2	208511	223505	4	0	56.7%	1	0.00	0.0	65.1%	291173.2	0.772
Jul-18	31	69	10.9	0	71	11.3	0	0	0	0	0	0	701,783	111571	2	208522	223505	4	0	50.9%	1	0.00	0.0	65.1%	291192.5	0.771
Aug-18	31	69	11.0	0	72	11.4	0	0	0	0	0	0	701,853	111582	2	208534	223505	4	0	50.9%	1	0.00	0.0	65.1%	291212.0	0.771
Sep-18	30	67	10.6	0	70	11.1	0	0	0	0	0	0	701,919	111593	2	208545	223505	4	0	51.2%	1	0.00	0.0	65.1%	291230.9	0.771
Oct-18	31	69	10.9	0	70	11.1	0	0	0	0	0	0	701,988	111604	2	208556	223505	4	0	50.5%	1	0.00	0.0	65.1%	291250.0	0.771
Nov-18	30	43	6.8	0	43	6.8	0	0	0	0	0	0	702,031	111611	2	208563	223505	4	0	50.0%	0	0.00	0.0	65.1%	291261.8	0.771
Dec-18	31	31	5.0	0	31	4.9	0	0	0	0	0	0	702,062	111616	2	208568	223505	4	0	49.5%	0	0.00	0.0	65.1%	291270.4	0.771
Jan-19	31	27	4.3	0	31	4.9	0	0	0	0	0	0	702,089	111620	2	208573	223505	4	0	53.3%	0	0.00	0.0	65.1%	291278.5	0.771
Feb-19	28	25	4.0	0	27	4.3	0	0	0	0	0	0	702,114	111624	2	208577	223505	4	0	51.8%	0	0.00	0.0	65.1%	291285.7	0.771
Mar-19	31	29	4.6	0	28	4.5	0	0	0	0	0	0	702,143	111629	2	208581	223505	4	0	49.4%	0	0.00	0.0	65.1%	291293.6	0.771
Apr-19	30	38	6.0	0	45	7.1	0	0	0	0	0	0	702,181	111635	2	208589	223505	4	0	54.2%	0	0.00	0.0	65.1%	291305.1	0.771
May-19	31	33	5.2	0	76	12.1	0	0	0	0	0	0	702,214	111640	2	208601	223505	4	0	69.9%	1	0.00	0.0	65.1%	291321.1	0.771
Jun-19	30	33	5.3	0	34	5.4	0	0	0	0	0	0	702,247	111645	2	208606	223505	4	0	50.5%	0	0.00	0.0	65.1%	291330.4	0.771
Jul-19	31	30	4.8	0	37	5.8	0	0	0	0	0	0	702,277	111650	2	208612	223505	4	0	54.7%	0	0.00	0.0	65.1%	291339.7	0.771
Aug-19	31	31	4.9	0	37	5.9	0	0	0	0	0	0	702,308	111655	2	208618	223505	4	0	54.6%	0	0.00	0.0	65.1%	291349.2	0.771
Sep-19	30	29	4.6	0	36	5.7	0	0	0	0	0	0	702,337	111659	2	208623	223505	4	0	55.3%	0	0.00	0.0	65.1%	291358.3	0.771
Oct-19	31	31	4.9	0	37	5.8	0	0	0	0	0	0	702,368	111664	2	208629	223505	4	0	54.2%	0	0.00	0.0	65.1%	291367.7	0.771
Nov-19	30	28	4.5	0	35	5.5	0	0	0	0	0	0	702,396	111669	2	208635	223505	4	0	55.0%	0	0.00	0.0	65.1%	291376.6	0.771
Dec-19	31	30	4.8	0	35	5.6	0	0	0	0	0	0	702,426	111674	2	208640	223505	4	0	53.8%	0	0.00	0.0	65.1%	291385.7	0.771

## Waskada Unit No. 15 - Rate Time



## Waskada Unit No. 15 - Rate Cum



**Waskada Unit No. 15 - Injection Parameters**

Month	Oil Rate (m3/d)	Gas Rate (e3m3/d)	Water Rate (m3/d)	Water Inj Rate (m3/d)	04/16-03 Water Inj Press (psi)	Cum Oil (m3)	Cum Gas (e3m3)	Cum Water (m3)	Cum Inj Water (m3)	GOR (m3/m3)	WOR (m3/m3)
Jan-19	0.1	0.0	0.2	0.0	0	111,620	2.3	208,573	223505.3	0	1.14
Feb-19	0.1	0.0	0.2	0.0	0	111,624	2.3	208,577	223505.3	0	1.08
Mar-19	0.1	0.0	0.1	0.0	0	111,629	2.3	208,581	223505.3	0	0.98
Apr-19	0.2	0.0	0.2	0.0	0	111,635	2.3	208,589	223505.3	0	1.18
May-19	0.2	0.0	0.4	0.0	0	111,640	2.3	208,601	223505.3	0	2.33
Jun-19	0.2	0.0	0.2	0.0	0	111,645	2.3	208,606	223505.3	0	1.02
Jul-19	0.2	0.0	0.2	0.0	0	111,650	2.3	208,612	223505.3	0	1.21
Aug-19	0.2	0.0	0.2	0.0	0	111,655	2.3	208,618	223505.3	0	1.20
Sep-19	0.2	0.0	0.2	0.0	0	111,659	2.3	208,623	223505.3	0	1.24
Oct-19	0.2	0.0	0.2	0.0	0	111,664	2.3	208,629	223505.3	0	1.18
Nov-19	0.2	0.0	0.2	0.0	0	111,669	2.3	208,635	223505.3	0	1.22
Dec-19	0.2	0.0	0.2	0.0	0	111,674	2.3	208,640	223505.3	0	1.17

04/16-03-002-26W1 Rate vs Pressure

