

WASKADA UNIT NO. 2

WATERFLOOD PROGRESS REPORT

January 1, through December 31, 2012

PennWest Exploration

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INTRODUCTION

The WASKADA UNIT NO.2 pressure maintenance project commenced water injection into the Lower Amaranth designed and in accordance with Manitoba Energy and Mines Approval No. PM 58.

PRESSURE MAINTENANCE: Governed by Board Order No. PM 58

Unit Information:

UNITIZED ZONE: Lower Amaranth

Original Unit, Jan.1, 1984 Board Order; Voluntary

First Enlargement, Sept. 1, 1985 Board Order; Voluntary

Second Enlargement, Oct. 1, 1986 Board Order; Voluntary

POOL: Waskada Lower Amaranth A (03 29A)

This report documents the performance of the Waskada Lower Amaranth pressure maintenance project for the period of January 1 to December 31, 2012.

Unit # 2 is part of main Waskada. The Waskada field is situated on the northeast rim of the Williston Basin in southern Manitoba. It comprises a large portion of Township 1 and 2, Ranges 25 and 26 (W1PM).

The Waskada Fields produce light density crude (approximately 36° API), predominantly from the Lower Amaranth formation. The interlaminated, shallow marine to subtidal succession of sandstones, silstones, and shale progressively onlaps the Mississippian unconformity surface from basin center, up dip to the north and eastern basin limits in Saskatchewan and Manitoba. The fine grained reservoir rock has a complex reservoir characterization with 13 to 16 % porosity and permeability on the order of 0.5 to 15 md. The lower Amaranth, the oldest Mesozoic unit is a clastic red bed sequence lying directly on the Paleozoic erosional surface. It consists of a series of dolomitic siltstones and sandstones interbedded with argillaceous siltstones and shales. The section is usually subdivided into a lower sandy unit and an overlying shale unit. The lower sequence is the

oil production zone. The bulk of pay is founded in the laminated sandstone/siltstone facies.

The Lower Amaranth has been classified into four general lithological types:

1. Interbedded shale/siltstone/sandstone by grain size, color and texture
2. Siltstone – This lithology occurs in distinct intervals up to two or three meters in thickness. It is generally light green in color and dolomitic.
3. Laminated sandstone – This occurs in distinct sandy intervals with a wide range of grain sizes and primary sedimentary structures.
4. Massive sandstone – This lithology occurs in thin intervals and usually associated with the laminated sandstones facies. Beds are usually light grey to reddish grey in color and coarse to medium – grained.

UNIT HISTORY

Waskada Lower Amaranth Unit #1 (Unit History)

CPA Pretty Well ID	Date Well Spudded	On Prod YYYY/MM/DD	Org Operator Name	Ground Elevation (m)	TVD (m)
100/14-22-001-26W1/00	10/28/1985	11/1/1985	Omega Hydcbns Ltd	460.4	959
100/16-22-001-26W1/00	8/7/1982		Omega Hydcbns Ltd	464.3	949
100/13-23-001-26W1/00	6/2/1983	6/1/1983	Omega Hydcbns Ltd	466.2	947
100/14-23-001-26W1/00	8/12/1982	10/1/1982	Omega Hydcbns Ltd	465.4	953
100/03-26-001-26W1/00	6/18/1982	7/1/1982	Omega Hydcbns Ltd	466	941
102/03-26-001-26W1/00	1/26/2011	8/1/2011	Penn West Enrg Trust	463.2	907.4
103/03-26-001-26W1/00	1/25/2012	4/1/2012	Penn West Enrg Trust	463.2	903
100/04-26-001-26W1/00	7/17/1982	10/1/1982	Omega Hydcbns Ltd	465.2	947
100/05-26-001-26W1/00	6/14/1982	7/1/1982	Omega Hydcbns Ltd	464.6	955
100/06-26-001-26W1/00	2/23/1982	6/1/1982	Omega Hydcbns Ltd	465.8	948
102/06-26-001-26W1/00	2/3/2011	8/1/2011	Penn West Enrg Trust	463	902.3
104/06-26-001-26W1/00	11/19/2011	3/1/2012	Penn West Petrl Ltd	463.4	
105/06-26-001-26W1/00	2/1/2012	4/1/2012	Penn West Enrg Trust	463.1	903.5
100/11-26-001-26W1/00	6/9/1982	7/1/1982	Omega Hydcbns Ltd	466.5	941
103/11-26-001-26W1/00	1/15/2012	3/1/2012	Penn West Enrg Trust	463.5	902.5
104/11-26-001-26W1/00	12/8/2011	3/1/2012	Penn West Enrg Trust	463.3	905.9
105/11-26-001-26W1/00	12/16/2011	3/1/2012	Penn West Enrg Trust	463.4	903.2
106/11-26-001-26W1/00	1/8/2012	3/1/2012	Penn West Enrg Trust	463.3	
102/12-26-001-26W1/00	6/10/1983	6/1/1983	Omega Hydcbns Ltd	465.7	947

100/13-26-001-26W1/00	12/14/1982	3/1/1983	Omega Hydcbns Ltd	464.7	950
100/14-26-001-26W1/00	6/26/1982	7/1/1982	Omega Hydcbns Ltd	465.9	954
102/14-26-001-26W1/00	12/14/2011	3/1/2012	Penn West Enrg Trust	463.6	905.8
103/14-26-001-26W1/00	12/7/2011	3/1/2012	Penn West Expl Ltd	463.8	907.6
104/14-26-001-26W1/00	11/30/2011	3/1/2012	Penn West Expl Ltd	463.8	905.8
105/14-26-001-26W1/00	12/30/2011	3/1/2012	Penn West Enrg Trust	463.3	910.1
100/01-27-001-26W1/00	11/15/1982	12/1/1982	Omega Hydcbns Ltd	462	955
103/01-27-001-26W1/00	7/17/2010	9/1/2010	Penn West Enrg Trust	460.8	904.4
100/02-27-001-26W1/00	8/20/1982	11/1/1982	Omega Hydcbns Ltd	461.9	956
100/03-27-001-26W1/00	10/25/1982	3/1/1983	Omega Hydcbns Ltd	461.3	950
102/03-27-001-26W1/02	7/1/1983	11/1/1988	Omega Hydcbns Ltd	461.8	947
100/04-27-001-26W1/00	12/4/1982	2/1/1983	Omega Hydcbns Ltd	459.8	954
102/04-27-001-26W1/00	11/14/2010	12/1/2010	Penn West Enrg Trust	462.5	906.5
100/05-27-001-26W1/00	9/20/1982	12/1/1982	Omega Hydcbns Ltd	461.5	951.8
102/05-27-001-26W1/00	1/3/2010	3/1/2010	Penn West Energy	464.1	909.2
103/05-27-001-26W1/00	11/20/2010	12/1/2010	Penn West Enrg Trust	462.5	903.3
102/06-27-001-26W1/00	6/18/1983	7/1/1983	Omega Hydcbns Ltd	463.9	948
100/07-27-001-26W1/00	8/23/1982	12/1/1982	Omega Hydcbns Ltd	462.8	955
100/08-27-001-26W1/00	6/22/1982	8/1/1982	Omega Hydcbns Ltd	464.7	955
102/08-27-001-26W1/00	7/12/2010	9/1/2010	Penn West Enrg Trust	460.8	902.8
100/09-27-001-26W1/00	8/24/1982	12/1/1982	Omega Hydcbns Ltd	463.3	951
102/09-27-001-26W1/02	7/5/1983	3/1/1987	NCE Petrofund Corp	464.2	950
100/10-27-001-26W1/00	8/28/1982	12/1/1982	Omega Hydcbns Ltd	462.5	951
102/11-27-001-26W1/00	6/27/1983	8/1/1983	Omega Hydcbns Ltd	464.2	948
100/12-27-001-26W1/00	8/27/1982	11/1/1982	Omega Hydcbns Ltd	461.5	948
102/13-27-001-26W1/00	6/19/1983	7/1/1983	Omega Hydcbns Ltd	461.5	948
102/14-27-001-26W1/00	6/23/1983	8/1/1983	Omega Hydcbns Ltd	463.5	946
102/15-27-001-26W1/00	6/2/1983	6/1/1983	Omega Hydcbns Ltd	464.3	952
102/16-27-001-26W1/00	6/6/1983	6/1/1983	Omega Hydcbns Ltd	464.1	954
100/02-34-001-26W1/02	3/13/1983	8/1/1983	Omega Hydcbns Ltd	465	964
100/08-34-001-26W1/00	5/30/1982	2/1/1983	Omega Hydcbns Ltd	464.2	951
100/02-35-001-26W1/00	9/1/1981	11/1/1981	Omega Hydcbns Ltd	463.9	964
102/02-35-001-26W1/00	8/9/2012	10/1/2012		468	910.6
103/02-35-001-26W1/00	7/29/2012	10/1/2012		468.1	910.9
104/02-35-001-26W1/00	8/4/2012	10/1/2012		468.1	911.3
105/02-35-001-26W1/00	8/13/2012	10/1/2012		466.8	909.5
100/03-35-001-26W1/02	7/22/1983	3/1/1984	Omega Hydcbns Ltd	467.5	970
100/05-35-001-26W1/00	7/18/1983	10/1/1983	Omega Hydcbns Ltd	466	950
100/06-35-001-26W1/00	11/24/1982	12/1/1982	Omega Hydcbns Ltd	466.9	948
105/07-35-001-26W1/00	8/15/2012	10/1/2012		470.6	907.3
100/12-35-001-26W1/00	10/5/1983	10/1/1983	Omega Hydcbns Ltd	465.7	964

Waskada Lower Amaranth Unit #1 (Production & Injection History)

CPA Pretty Well ID	First Prod YYYY/MM	On Inject. YYYY/MM/DD	Last Prod. YYYY/MM	Cumulative OIL Prod. (m3)	Cumulative WTR Prod. (m3)	Last Inject. YYYY/MM
100/14-22-001-26W1/00	1985/11		1987/04	365	5808	
100/16-22-001-26W1/00		12/1/1983				1988/02
100/13-23-001-26W1/00	1983/06	2/1/1988	1988/02	1445	22332	1994/03
100/14-23-001-26W1/00	1982/10		1996/04	10112	14240	
100/03-26-001-26W1/00	1982/07		2012/04	12237	15793	
102/03-26-001-26W1/00	2011/08		2012/10	3567	8436	
103/03-26-001-26W1/00	2012/04		2012/10	2504	4166	
100/04-26-001-26W1/00	1982/10		2012/10	22617	59342	
100/05-26-001-26W1/00	1982/07	1/1/1984	1984/01	4452	560	2012/05
100/06-26-001-26W1/00	1982/06		2012/10	16910	8134	
102/06-26-001-26W1/00	2011/08		2012/10	3539	8570	
104/06-26-001-26W1/00	2012/03		2012/10	2785	5431	
105/06-26-001-26W1/00	2012/04		2012/10	2001	4336	
100/11-26-001-26W1/00	1982/07		1996/06	5291	9748	
103/11-26-001-26W1/00	2012/03		2012/10	2166	5245	
104/11-26-001-26W1/00	2012/03		2012/10	1765	5256	
105/11-26-001-26W1/00	2012/03		2012/10	1601	4965	
106/11-26-001-26W1/00	2012/03		2012/10	2149	5717	
102/12-26-001-26W1/00	1983/06		1996/05	10871	23414	
100/13-26-001-26W1/00	1983/03	2/1/1984	1984/01	456	3106	1987/03
100/14-26-001-26W1/00	1982/07		1989/10	1263	17092	
102/14-26-001-26W1/00	2012/03		2012/10	1270	7621	
103/14-26-001-26W1/00	2012/03		2012/10	1531	6302	
104/14-26-001-26W1/00	2012/03		2012/10	2060	4927	
105/14-26-001-26W1/00	2012/03		2012/10	1041	8344	
100/01-27-001-26W1/00	1982/12		1988/08	3814	22881	
103/01-27-001-26W1/00	2010/09		2012/10	4273	12999	
100/02-27-001-26W1/00	1982/11		1991/12	2721	10453	
100/03-27-001-26W1/00	1983/03		1988/06	1812	14399	
102/03-27-001-26W1/02	1988/11		1989/02	0	1277	
100/04-27-001-26W1/00	1983/02		1988/05	3241	24522	
102/04-27-001-26W1/00	2010/12		2012/10	2123	25127	
100/05-27-001-26W1/00	1982/12	1/1/1984	1984/01	1918	3490	1987/03
102/05-27-001-26W1/00	2010/03		2012/10	2771	11939	
103/05-27-001-26W1/00	2010/12		2012/10	2055	15293	

102/06-27-001-26W1/00	1983/07		1993/03	9371	22335	
100/07-27-001-26W1/00	1982/12	2/1/1984	1984/01	2288	3673	1999/03
100/08-27-001-26W1/00	1982/08		1992/04	9204	34447	
102/08-27-001-26W1/00	2010/09		2012/10	4707	10478	
100/09-27-001-26W1/00	1982/12		1990/01	1822	6785	
102/09-27-001-26W1/02	1987/03		1992/04	528	2827	
100/10-27-001-26W1/00	1982/12		1995/12	4358	11774	
102/11-27-001-26W1/00	1983/08		1989/04	1755	28320	
100/12-27-001-26W1/00	1982/11		1993/05	8116	27664	
102/13-27-001-26W1/00	1983/07	2/1/1984	1984/01	1431	1348	1986/12
102/14-27-001-26W1/00	1983/08		1995/12	23444	50261	
102/15-27-001-26W1/00	1983/06	1/1/1984	1984/01	1833	381	1987/12
102/16-27-001-26W1/00	1983/06		1990/05	3332	26565	
100/02-34-001-26W1/02	1983/08		1990/03	1073	7923	
100/08-34-001-26W1/00	1983/02		1990/02	1500	14810	
100/02-35-001-26W1/00	1981/11		1989/02	1237	1020	
102/02-35-001-26W1/00	2012/10		2012/10	2	84	
103/02-35-001-26W1/00	2012/10		2012/10	14	76	
104/02-35-001-26W1/00	2012/10		2012/10	17	28	
105/02-35-001-26W1/00	2012/10		2012/10	526	592	
100/03-35-001-26W1/02	1984/03		1989/10	439	9279	
100/05-35-001-26W1/00	1983/10	10/1/1985	1985/09	628	6047	1992/10
100/06-35-001-26W1/00	1982/12		1991/04	3515	13752	
105/07-35-001-26W1/00	2012/10		2012/10	6	49	
100/12-35-001-26W1/00	1983/10		1989/11	697	7887	

DISCUSSION:

Production Performance

Production Response versus Injection: Since injection began, late 1983, injection rates fluctuated to some degree amongst the injectors; it is difficult to link any production responses to any specific injector. Water breakthrough in certain producers could not be directly correlated with over injection in associated injectors. Some wells showed no change in oil rate when injection was ceased in 1998-99.

Voidage Replacement Ratio Calculation

What could be described as very limited success, the waterflood was not maintained properly and injection rate dropped year after year in most cases. The cumulative VRR in the pool is about 0.66 (under injected) and the current monthly VRR is zero. All of the injectors are shut in currently. PennWest has no plan to re-activate the old injectors. To understand the past performance of the Lower Amaranth waterflood, we are doing some reservoir engineering work to come up with potential solutions. One of our plans is to do a pilot program in section 2:

The objective of the pilot is to:

1. To see can we inject continuously into the Lower Amaranth Formation with:-
 - i. Particle size less than 1 micron
 - ii. Total Suspended Solid (TSS) less than 10 ppm
 - iii. Oil less than 10 ppm
2. Inject below the frac pressure
3. Test the simulation model that we have built.

2012 Waskada Lower Amaranth Waterflood Pilot Location

The pilot producer is 102/12-01-02-26W1/00 (the existing horizontal well) and the injectors are two vertical wells; 100/12-01-02-26W1 and 100/11-01-02-26 (converted to injectors). The pilot started late 2012, but because of some technical issues and cold weather the operation suspended, and it was postponed until spring 2013.

Corrosion and Scale Prevention Program

We currently inject ScalCor down all the new horizontal wells. Plus, PennWest will be installing cathodic protection on the wells. Also, the new gathering system is Fiberglass and as such is not susceptible to corrosion.

SUMMARY AND RECOMMENDATIONS

Producers

Current Producing Wells

102/03-26-001-26W1/00
103/03-26-001-26W1/00
100/04-26-001-26W1/00
100/06-26-001-26W1/00
102/06-26-001-26W1/00
104/06-26-001-26W1/00
105/06-26-001-26W1/00
103/11-26-001-26W1/00
104/11-26-001-26W1/00
105/11-26-001-26W1/00
106/11-26-001-26W1/00
102/14-26-001-26W1/00
103/14-26-001-26W1/00
104/14-26-001-26W1/00
105/14-26-001-26W1/00
103/01-27-001-26W1/00
102/04-27-001-26W1/00
102/05-27-001-26W1/00
103/05-27-001-26W1/00
102/08-27-001-26W1/00
102/02-35-001-26W1/00
103/02-35-001-26W1/00
104/02-35-001-26W1/00
105/02-35-001-26W1/00
105/07-35-001-26W1/00

Current Suspended Wells

100/03-26-001-26W1/00

Abandoned Wells

00/14-22-001-26W1/0 (since 1987/05)
00/14-23-001-26W1/0 (since 1996/05)
00/11-26-001-26W1/0 (since 1996/07)
02/12-26-001-26W1/0 (since 1996/06)

00/14-26-001-26W1/0 (since 1989/11)
00/01-27-001-26W1/0 (since 1988/09)
00/02-27-001-26W1/0 (since 1992/01)
00/03-27-001-26W1/0 (since 1988/07)
02/03-27-001-26W1/0 (since 1988/12)
00/04-27-001-26W1/0 (since 1988/06)
02/06-27-001-26W1/0 (since 1993/04)
00/08-27-001-26W1/0 (since 1992/05)
00/09-27-001-26W1/0 (since 1990/02)
02/09-27-001-26W1/2 (since 1992/05)
00/10-27-001-26W1/0 (since 1996/01)
02/11-27-001-26W1/0 (since 1989/05)
00/12-27-001-26W1/0 (since 1993/06)
02/14-27-001-26W1/0 (since 1996/01)
02/16-27-001-26W1/0 (since 1990/06)
00/02-34-001-26W1/2 (since 1990/04)
00/08-34-001-26W1/0 (since 1990/03)
00/02-35-001-26W1/0 (since 1989/03)
00/03-35-001-26W1/2 (since 1989/11)
00/06-35-001-26W1/0 (since 1991/05)
00/12-35-001-26W1/0 (since 1989/12)

Injectors

Current Injecting Wells

None

Current Suspended Wells

00/05-26-001-26W1/0 (since 2012/05)

Abandoned Wells

00/16-22-001-26W1/0 (since 1988/03)

00/13-23-001-26W1/0 (since 1994/04)

00/13-26-001-26W1/0 (since 1987/04)

00/05-27-001-26W1/0 (since 1987/04)

00/07-27-001-26W1/0 (since 1999/04)

02/13-27-001-26W1/0 (since 1987/01)

02/15-27-001-26W1/0 (since 1988/01)

00/05-35-001-26W1/0 (since 1992/11)

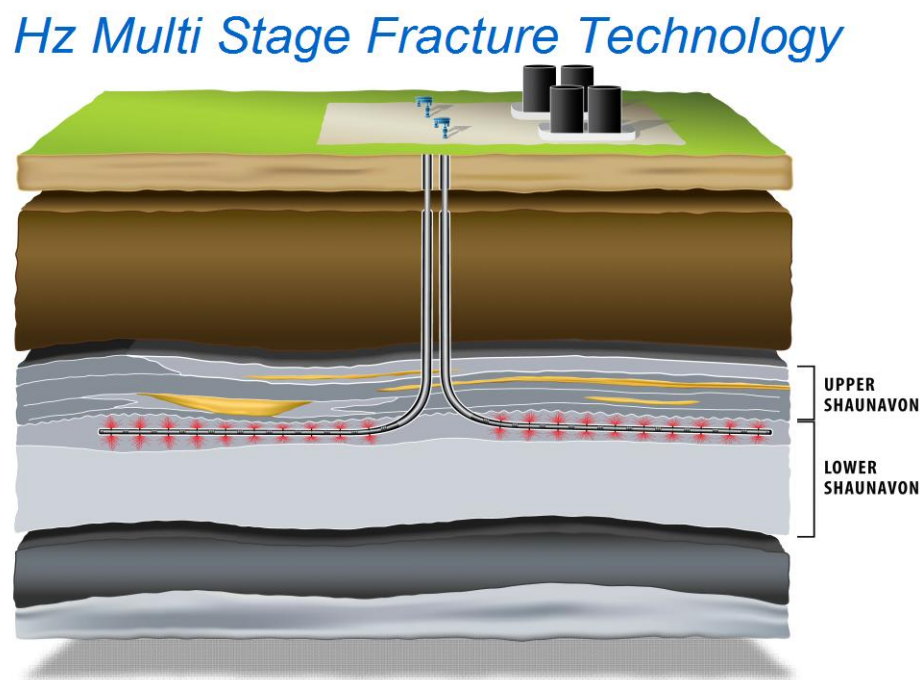
The behavior of a Waskada Unit 2 producers are indicated by examining the oil rate versus time plots (see Appendix B). Waskada Unit 2 exhibited relatively high initial oil productivity (most of the wells that were drilled in the past are verticals), rapidly declining to flat/low decline rates, with almost no discernible water flood response. This behavior can be explained by drop in the reservoir pressure from initial (approximately 8700 kPag) to above in some wells or below in others bubble point pressure (about 4200 kPag) followed by solution gas breakout which adversely affected the relative permeability to oil. (See Table # 2)

It is believed that fracture stimulation treatments, performed on these wells prior to initiation of water injection, “broke” through into the higher productivity Mississippian zone and that majority of injected water to date has entered this zone. This is one of the major explanations for lack of waterflood response to date and the continued decline in oil productivities.

The Waskada Lower Amaranth is becoming a non-conventional tight oil resource play that utilizes horizontal multi-stage frac drilling technology (small multi-stage frac stimulations on newly drilled wells will remain “in zone” within the Lower Amaranth) to re-develop the thick low perm oil zones adjacent to the conventional Amaranth zone that was discovered in the 1980’s. PennWest drilled five horizontal wells, to increase the Recovery Factor (RF), in year 2010, 102/05-27-001-26W1, 103/01-27-001-26W1,

102/04-27-001-26W1, 103/05-27-001-26W1 and 102/08-27-001-26W1. PennWest drilled two more horizontal well in 2011 in this unit. PennWest's follow up plan is to convert some of the recent horizontal producing wells to injection wells to increase the sweep efficiency and ultimately increase the recoverable oil in place.

The following is the HZ Multi Stage Fracture Technology that we are using in our new development.



TABLES

Waskada Unit #2

Table 1: Rates History

Production Data						
Date	Oil		Water		Injection Water	
Year	m3/year	m3/day	m3/year	m3/day	m3/year	m3/day
1981	146	0.40	78	0.21	0	0.00
1982	9,220	25.26	4,445	12.18	0	0.00
1983	36,384	99.68	63,552	174.12	1,239	3.39
1984	24,120	66.08	79,843	218.75	153,606	420.84
1985	22,559	61.80	85,328	233.77	126,181	345.70
1986	20,364	55.79	87,504	239.74	160,776	440.48
1987	14,682	40.23	56,168	153.88	61,485	168.45
1988	9,025	24.73	32,921	90.19	12,461	34.14
1989	5,778	15.83	24,659	67.56	3,834	10.51
1990	5,145	14.10	13,878	38.02	14,370	39.37
1991	3,887	10.65	12,754	34.94	15,978	43.78
1992	3,270	8.96	12,727	34.87	15,440	42.30
1993	2,365	6.48	12,922	35.40	8,431	23.10
1994	1,970	5.40	9,267	25.39	5,612	15.38
1995	2,064	5.65	9,530	26.11	5,405	14.81
1996	1,647	4.51	3,642	9.98	5,289	14.49
1997	1,084	2.97	2,867	7.85	469	1.28
1998	1,327	3.63	2,463	6.75	0	0.00
1999	1,379	3.78	2,187	5.99	639	1.75
2000	1,300	3.56	1,779	4.87	1,818	4.98
2001	1,198	3.28	2,168	5.94	1,816	4.97
2002	1,213	3.32	1,781	4.88	2,044	5.60
2003	711	1.95	1,068	2.93	1,921	5.26
2004	554	1.52	1,214	3.33	1,437	3.94
2005	421	1.15	999	2.74	1,383	3.79
2006	360	0.98	906	2.48	2,275	6.23
2007	527	1.44	1,190	3.26	3,093	8.47
2008	648	1.78	1,062	2.91	2,396	6.56
2009	473	1.29	912	2.50	1,378	3.77
2010	4,704	12.89	13,796	37.80	1,905	5.22
2011	14,846	40.68	47,816	131.00	432	1.18
2012	27,196	74.51	98,244	269.16	5,240	14.36

Waskada Unit #2

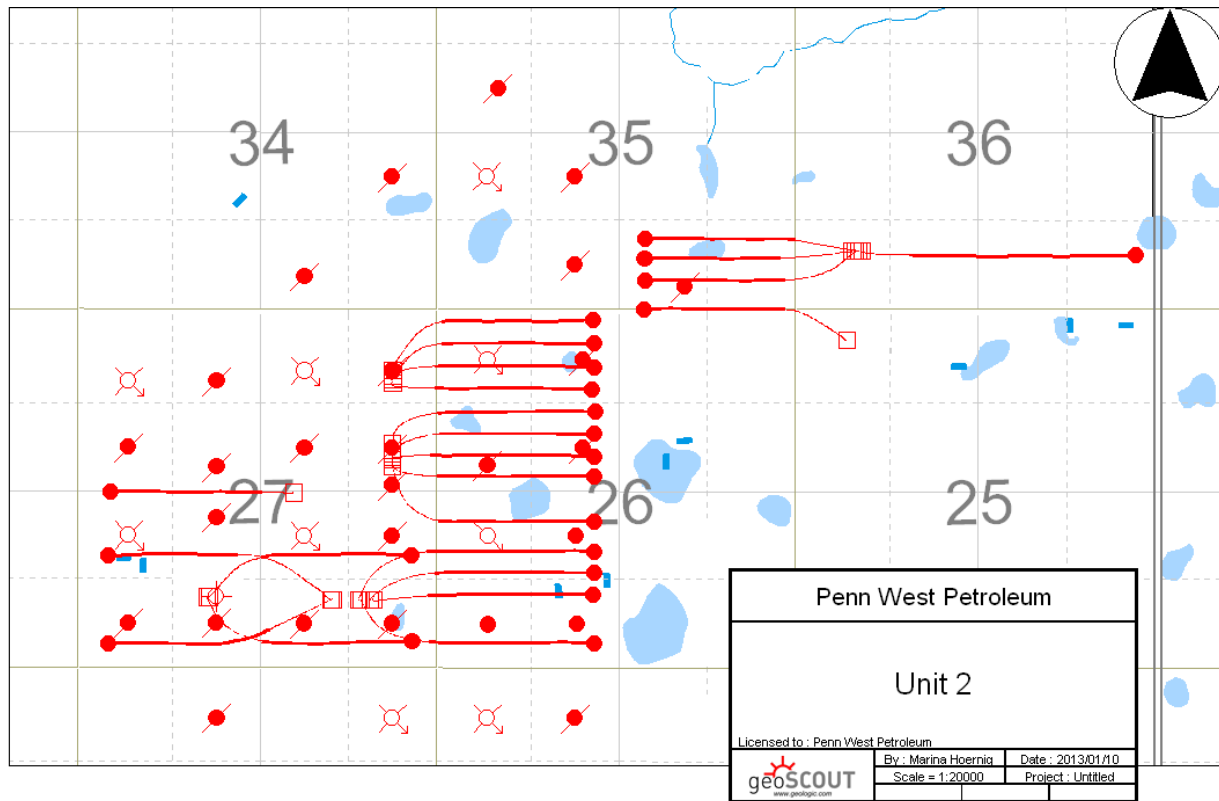
Table 2: Pressure Survey

Location	Shut In Date	Date of Survey	Type of Survey	Pressure @ Datum Depth (kPa)
02/12-24-001-26W1/0	17-Oct-10	24-Oct-10	BHP Build Up	1016
03/13-24-001-26W1/0	17-Oct-10	24-Oct-10	BHP Build Up	3179
00/15-24-001-26W1/0	Dec-89	(18 days)	Static Gradient	10482
00/06-25-001-26W1/0	(8 days)	11-Dec-06	Acoustic Build Up	4186
00/09-25-001-26W1/0		2008	BHP, Assuming WC from Last Prod'n	4881
02/09-25-001-26W1/0	17-Oct-10	24-Oct-10	BHP Build Up	1743
00/15-25-001-26W1/0	Jan-90	(68 days)	Static Gradient	11144
00/16-25-001-26W1/0		2008	BHP, Assuming WC from Last Prod'n	5765
00/08-26-001-26W1/0		2008	BHP, Assuming WC from Last Prod'n	6267
102/05-27-001-26W1/0		Sept 2011	Results of the test are attached to the report	

Recent pressure test was performed on 102/05-27-001-26W1/00 on September 2011 and the results of the test are attached to the report

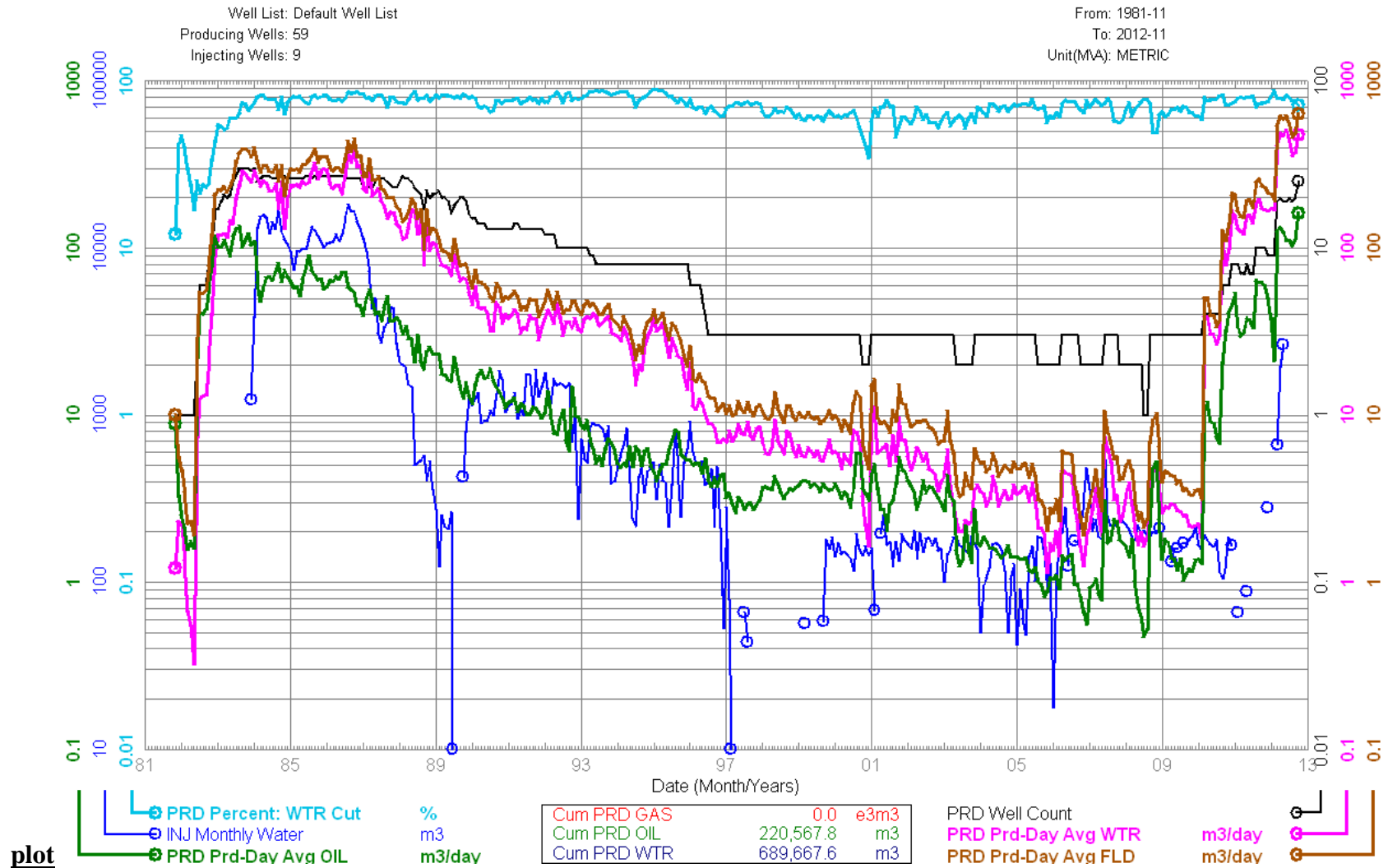
APPENDIX A

Appendix A – Area Map



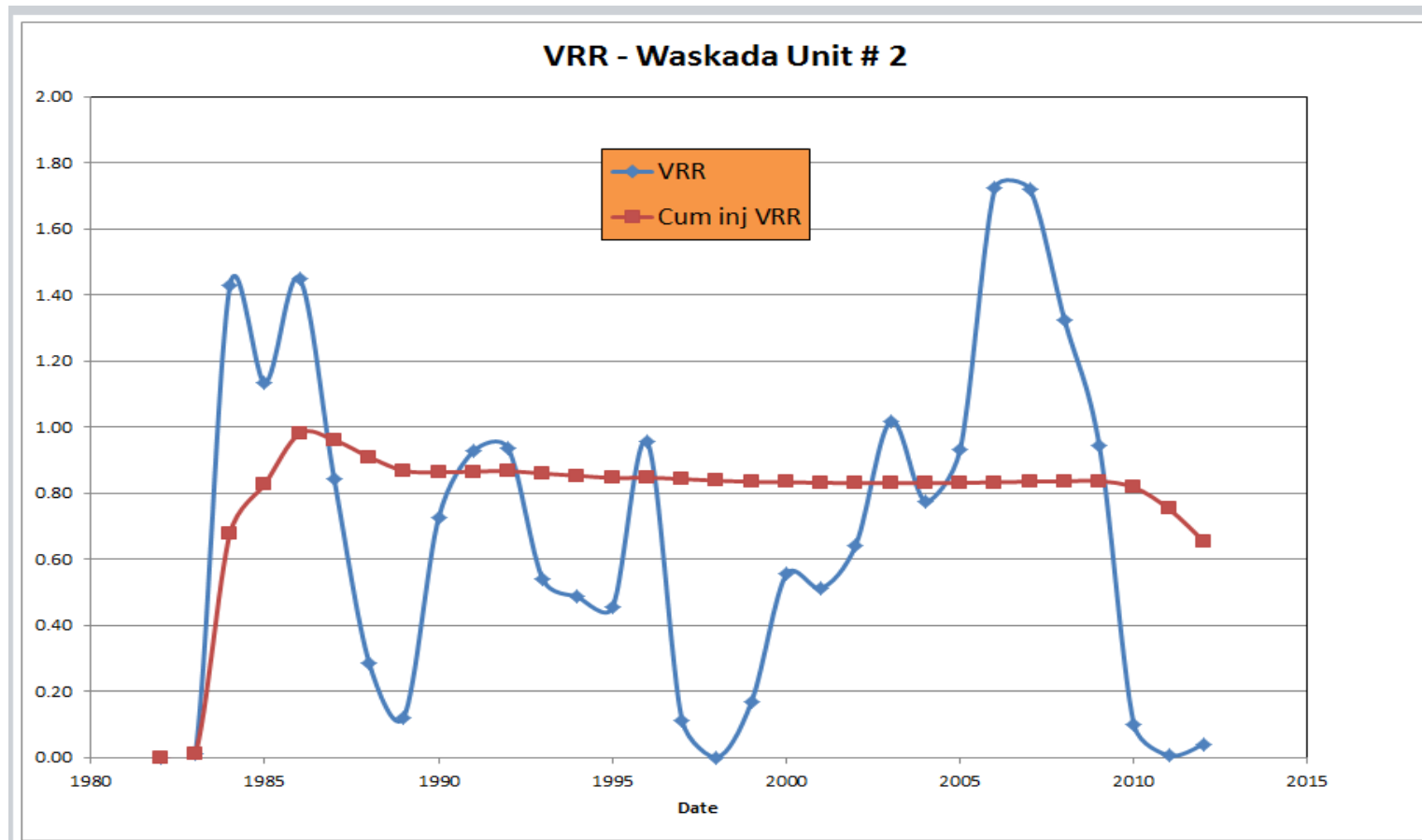
APPENDIX B

Appendix B – Production and Injection History



APPENDIX C

Appendix C – Voidage Replacement Ratio VRR



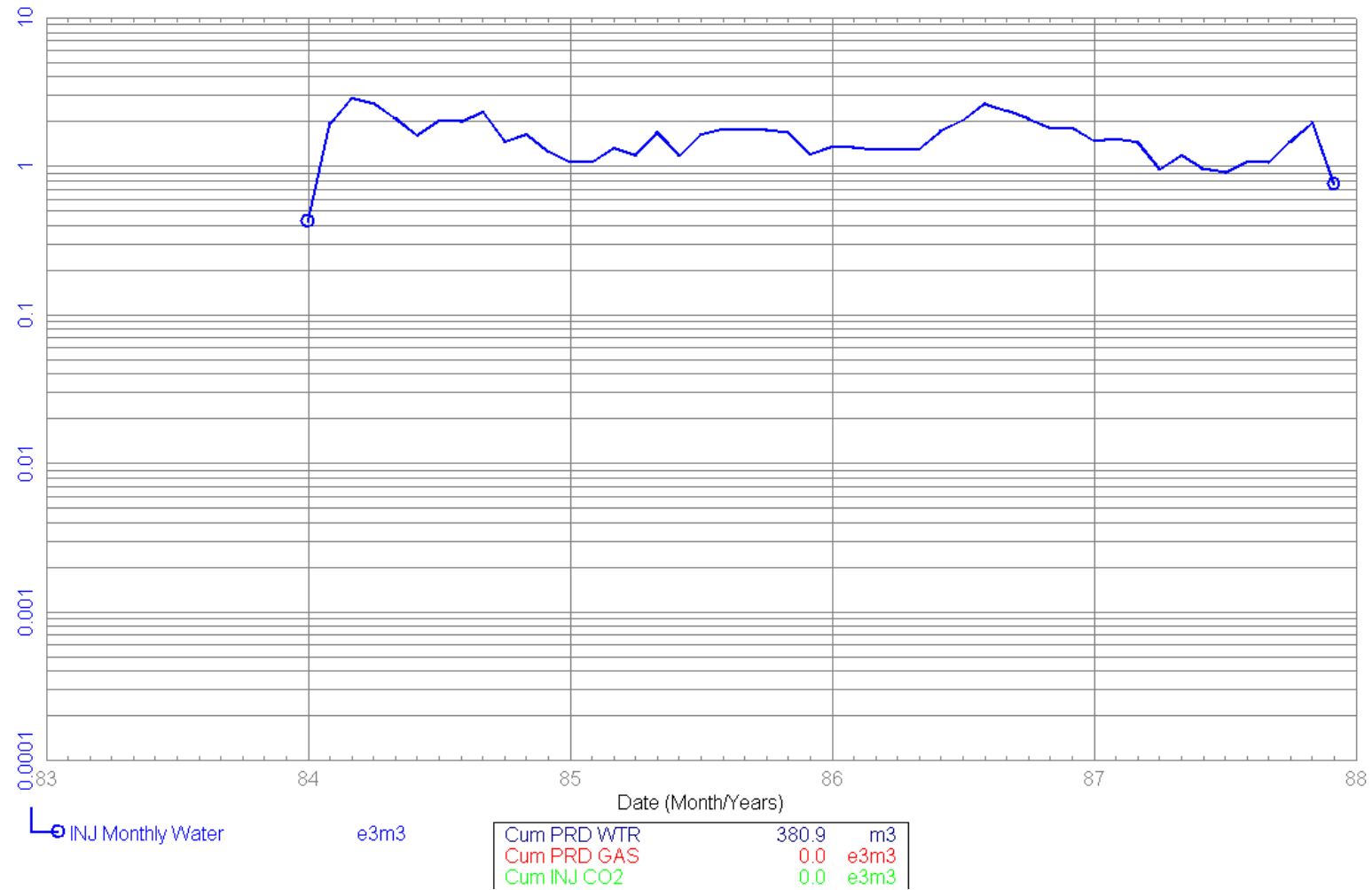
APPENDIX D

Appendix D – Production and Injection Profiles (Individual wells)

Data As Of: 2012-10 (MB)
From: 1983-06
To: 1984-01

102/15-27-001-26W1/00
Omega Waskada
Abandoned Water Inj Well

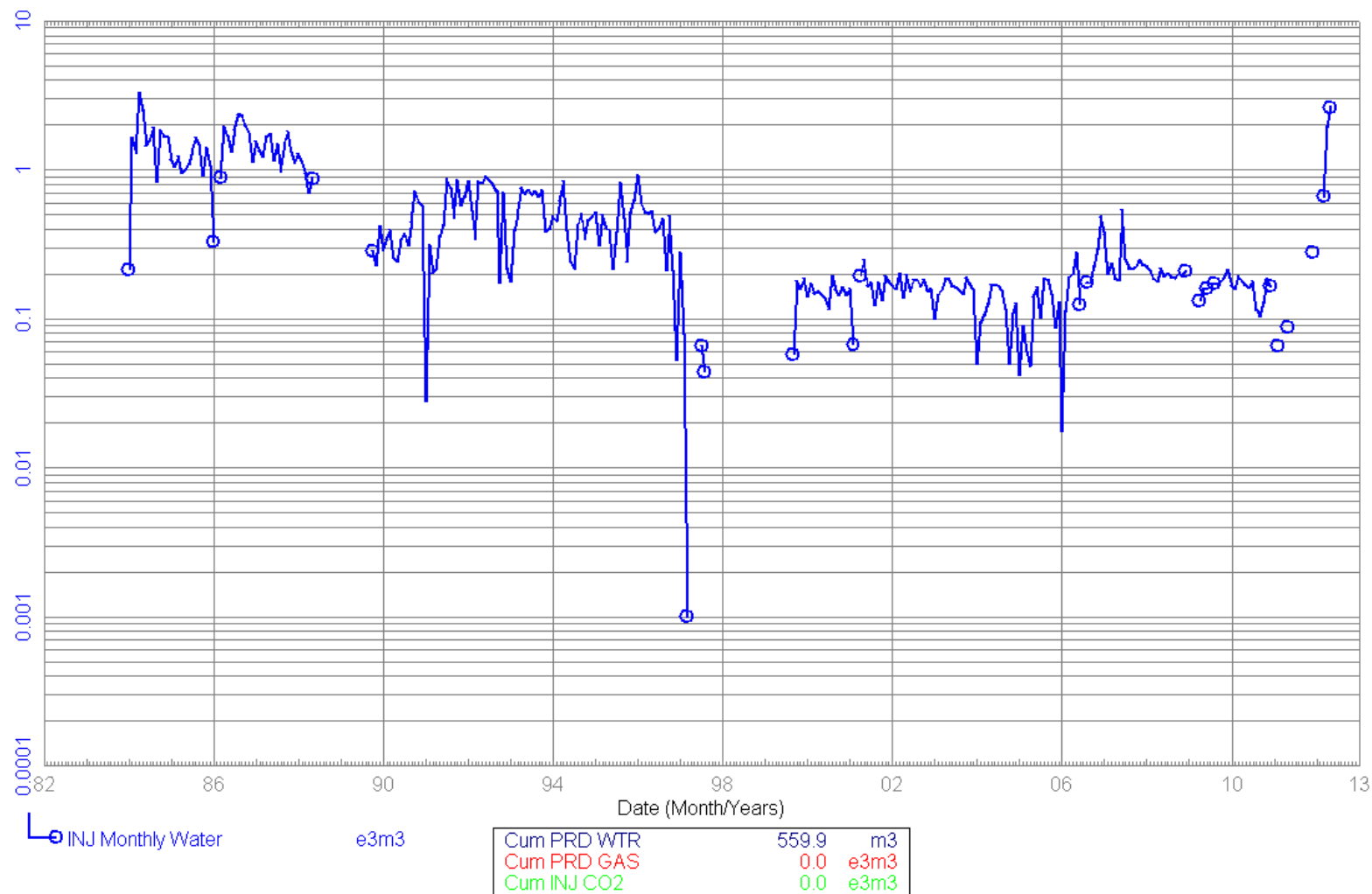
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1982-07
To: 1984-01

100/05-26-001-26W1/00
Waskada Unit No. 2 WIW
Water Inj Well

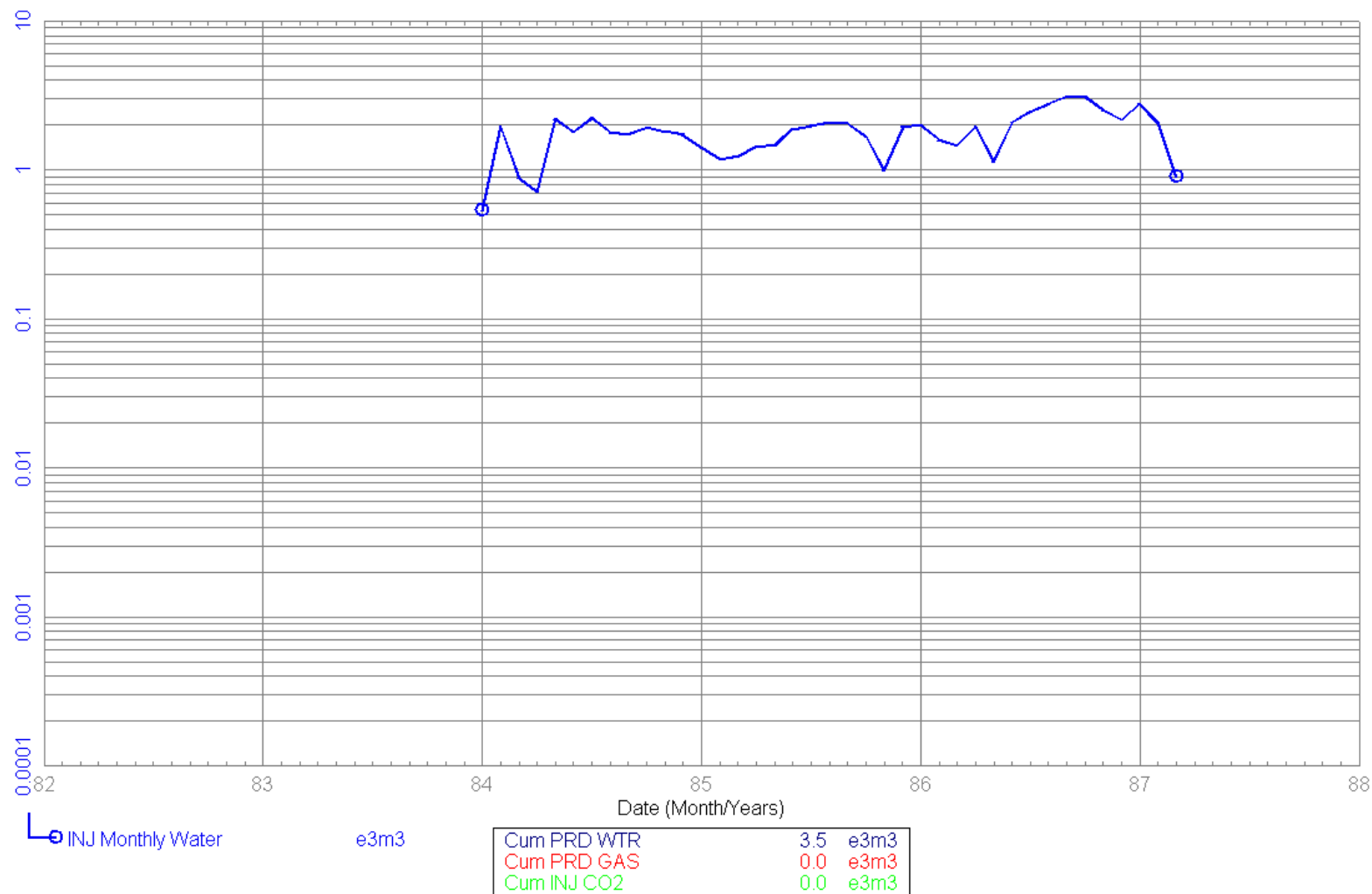
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1982-12
To: 1984-01

100/05-27-001-26W1/00
Omega Waskada WW
Abandoned Water Inj Well

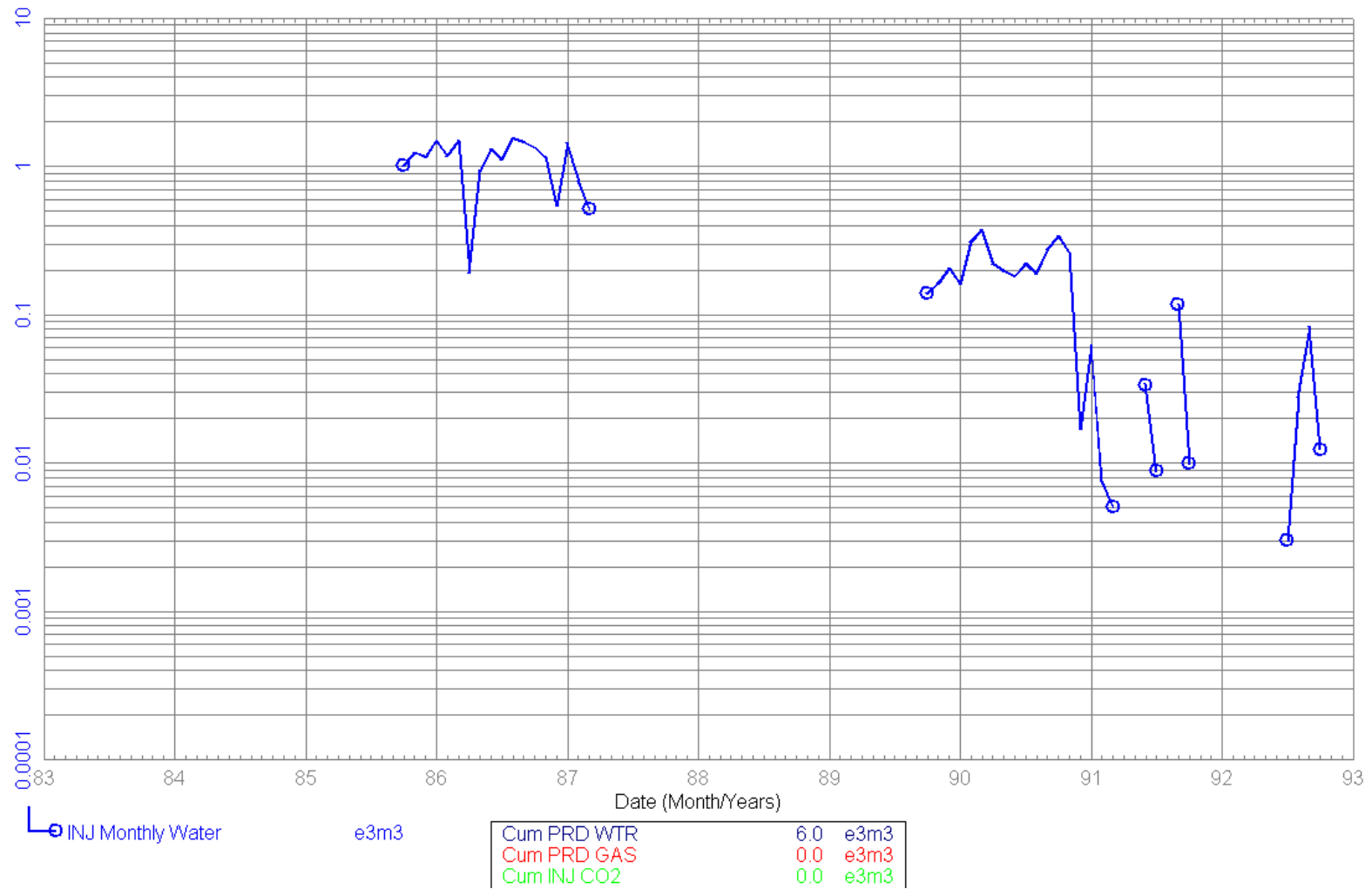
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-10
To: 1985-09

100/05-35-001-26W1/00
Waskada Unit No. 2 WIW/
Abandoned Water Inj Well

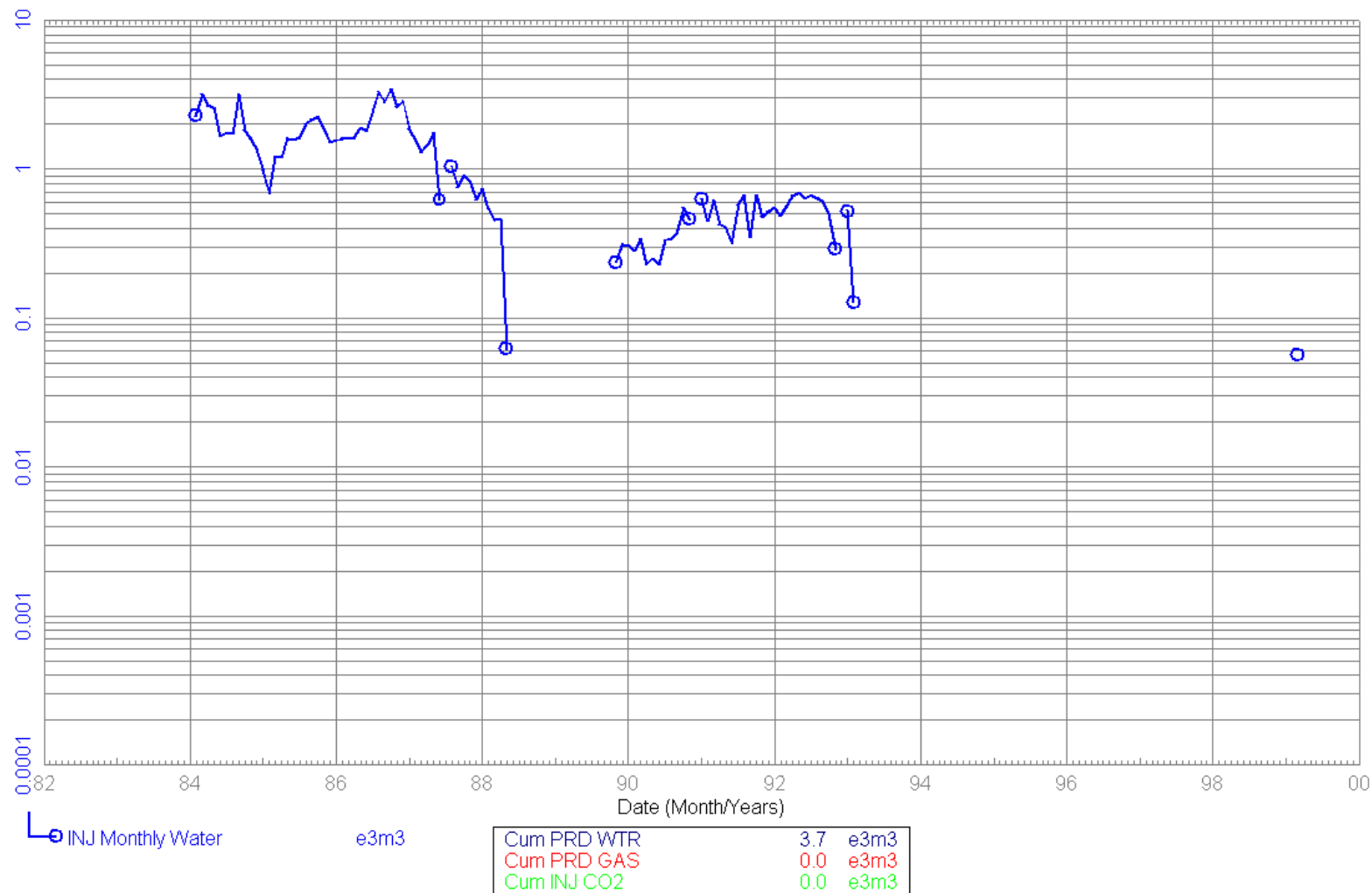
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1982-12
To: 1984-01

100/07-27-001-26W1/00
Waskada Unit No. 2 WIW
Abandoned Water Inj Well

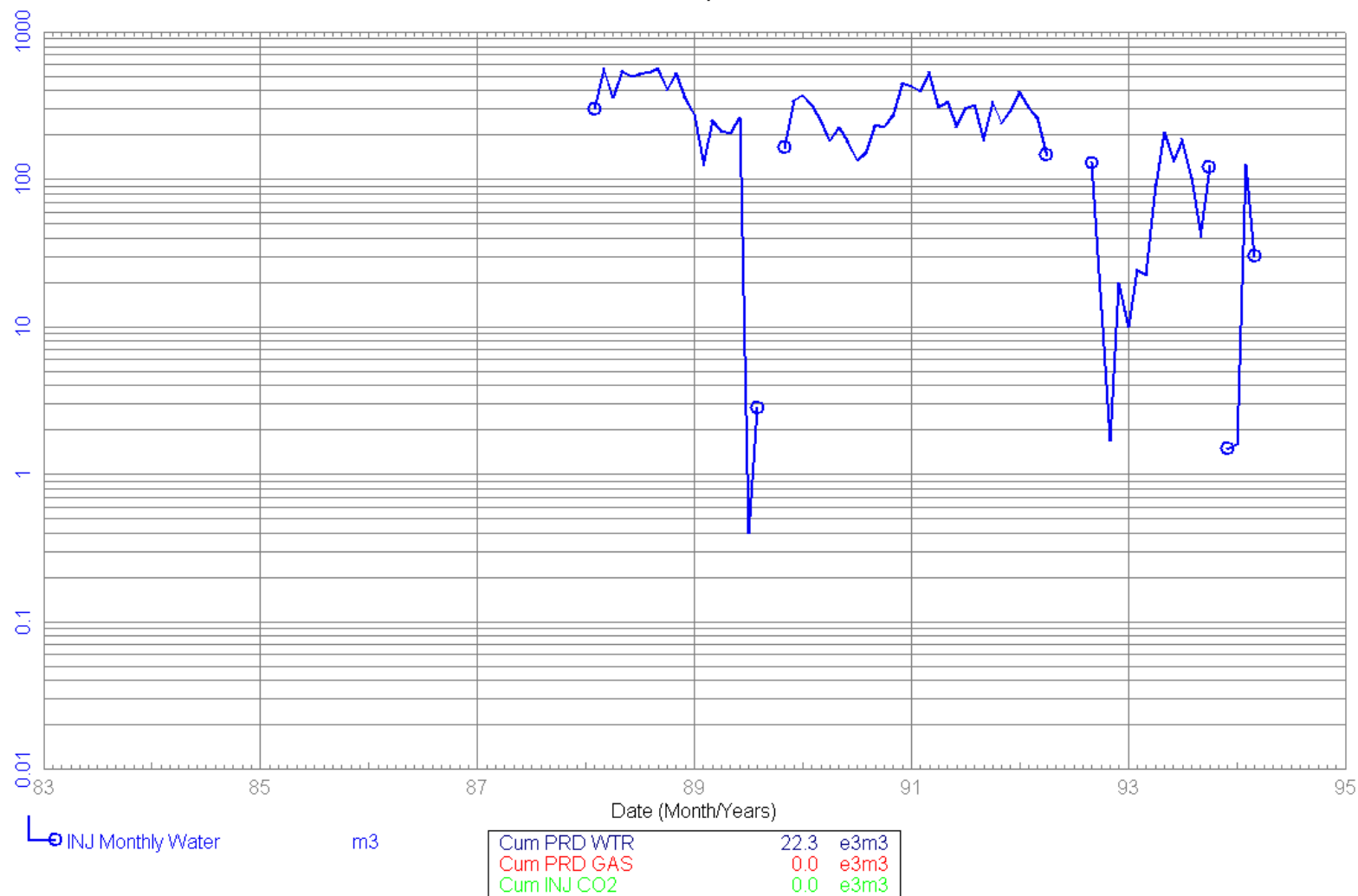
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-06
To: 1988-02

100/13-23-001-26W1/00
Waskada Unit No. 2 WIW
Abandoned Water Inj Well

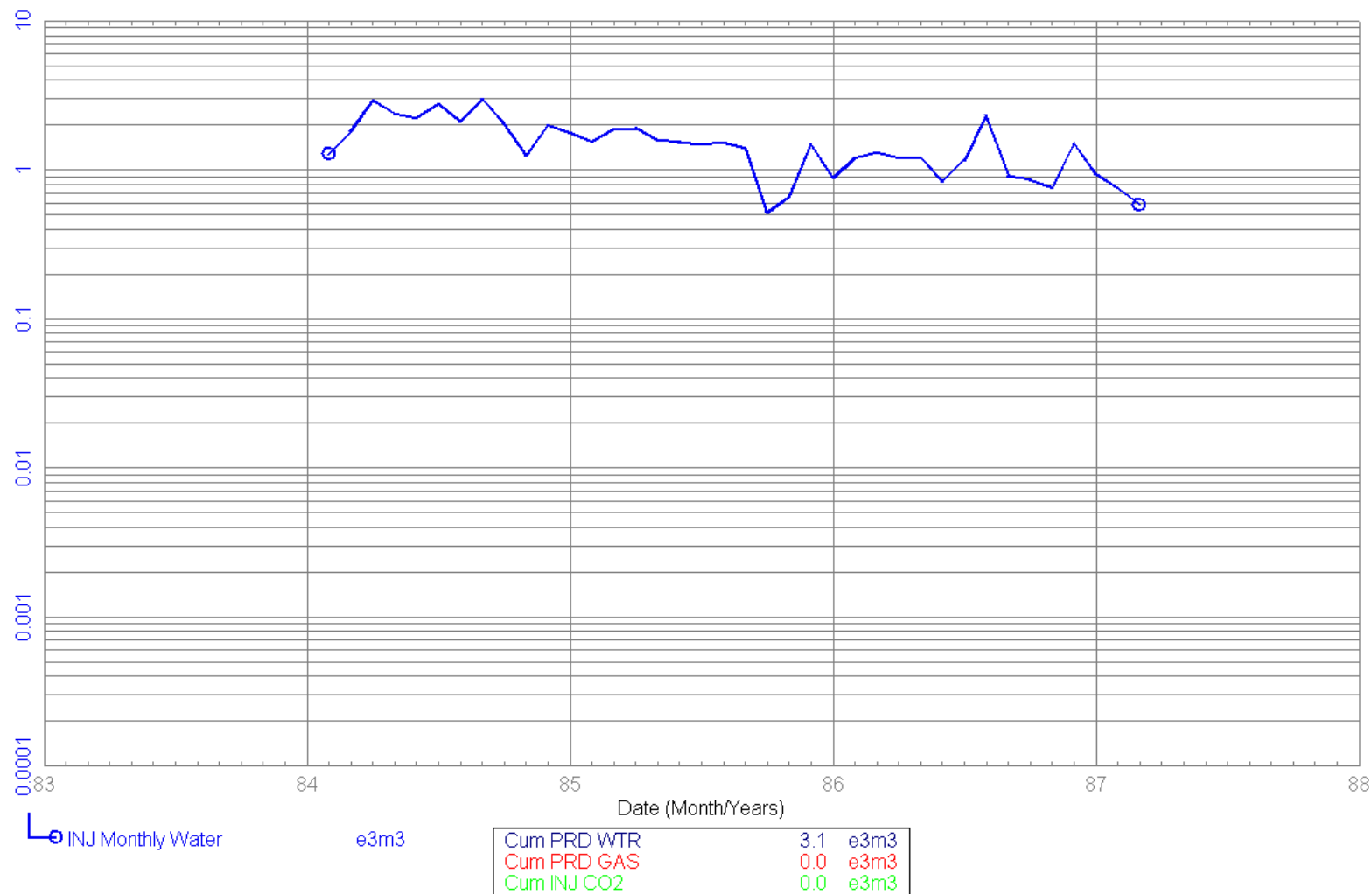
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-03
To: 1984-01

100/13-26-001-26W1/00
Omega Waskada WW
Abandoned Water Inj Well

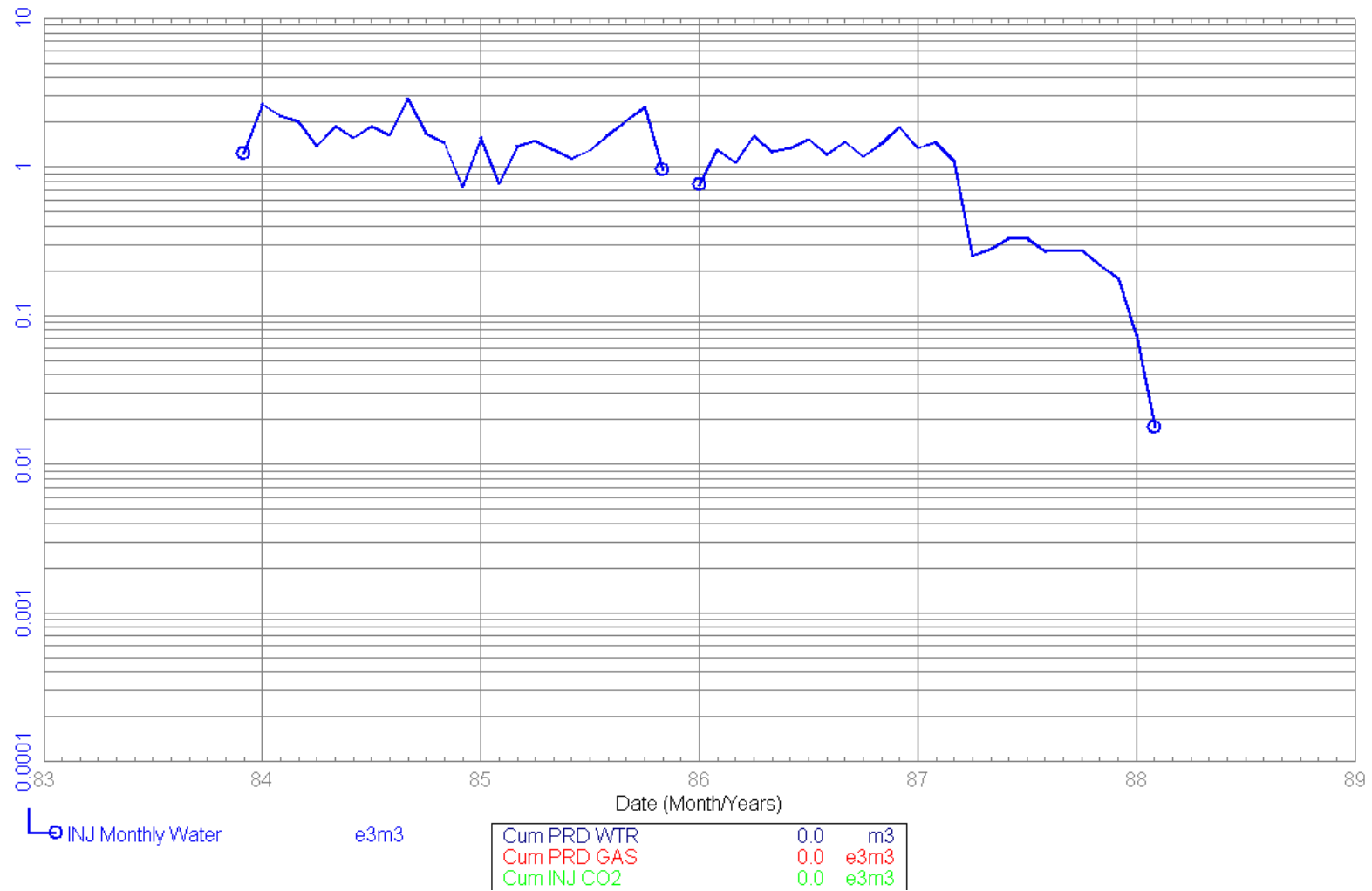
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-12
To: 1988-02

100/16-22-001-26W1/00
Omega Waskada Prov. WW
Abandoned Water Inj Well

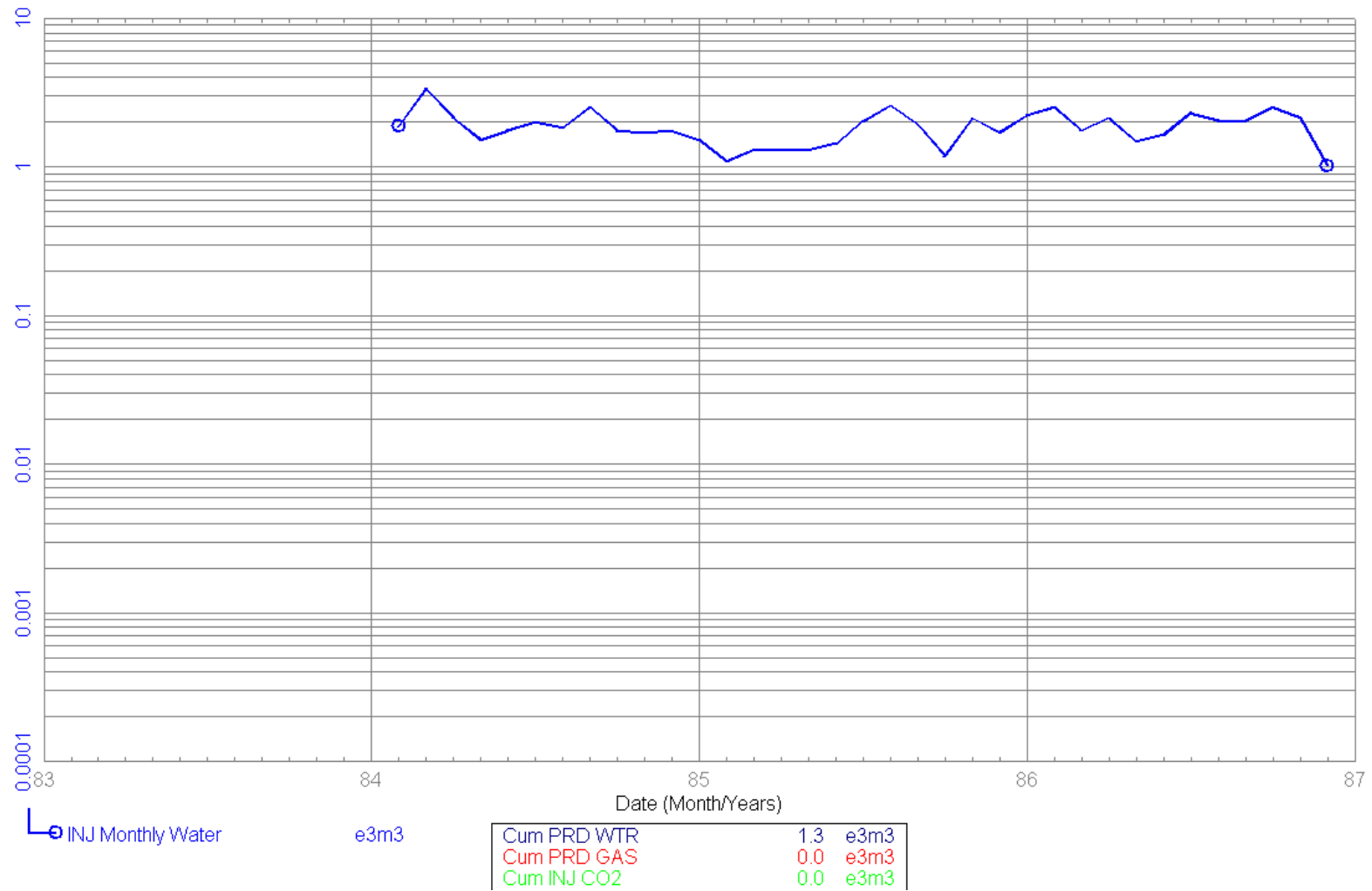
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-07
To: 1984-01

102/13-27-001-26W1/00
Waskada Unit No. 9
Abandoned Water Inj Well

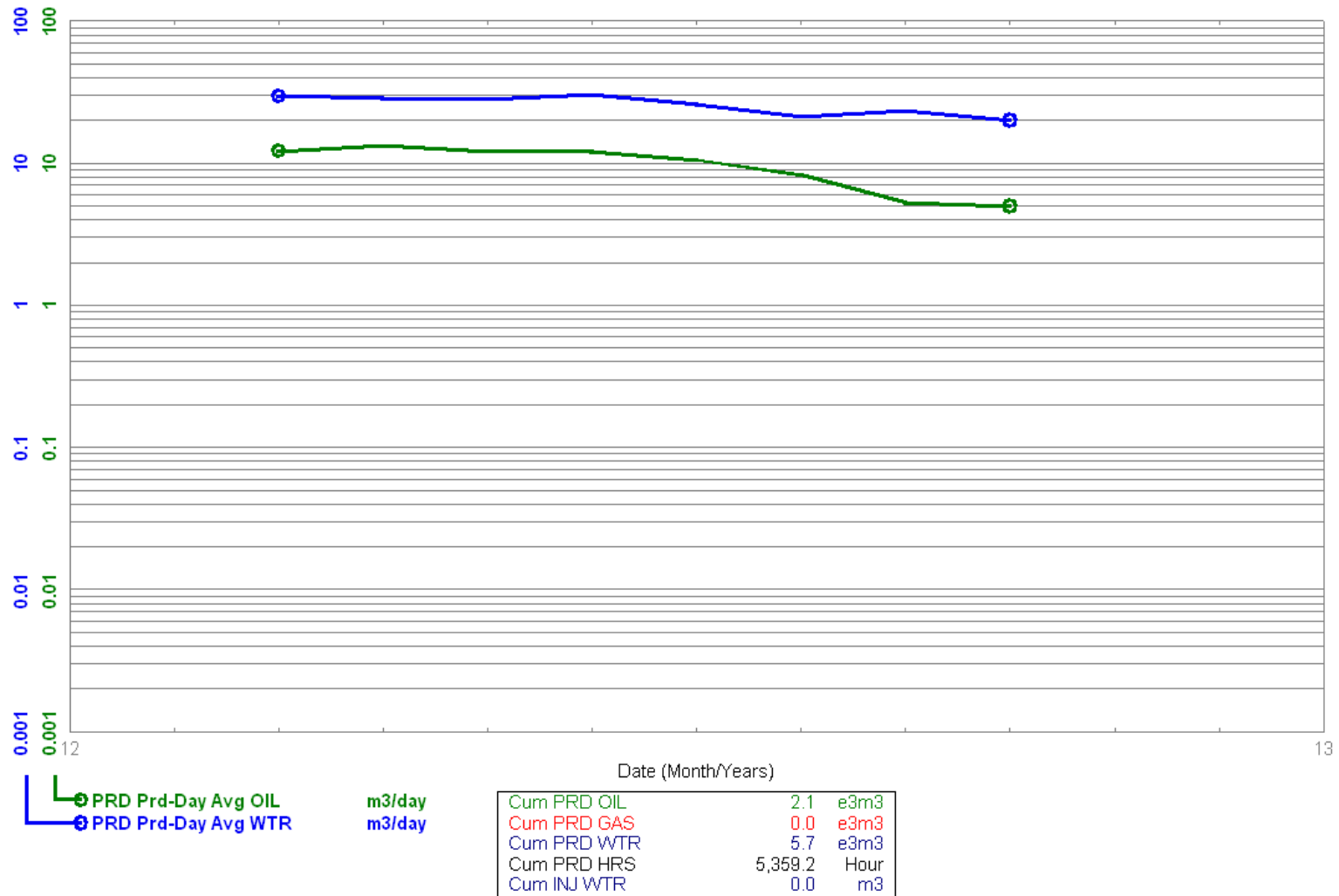
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

106/11-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

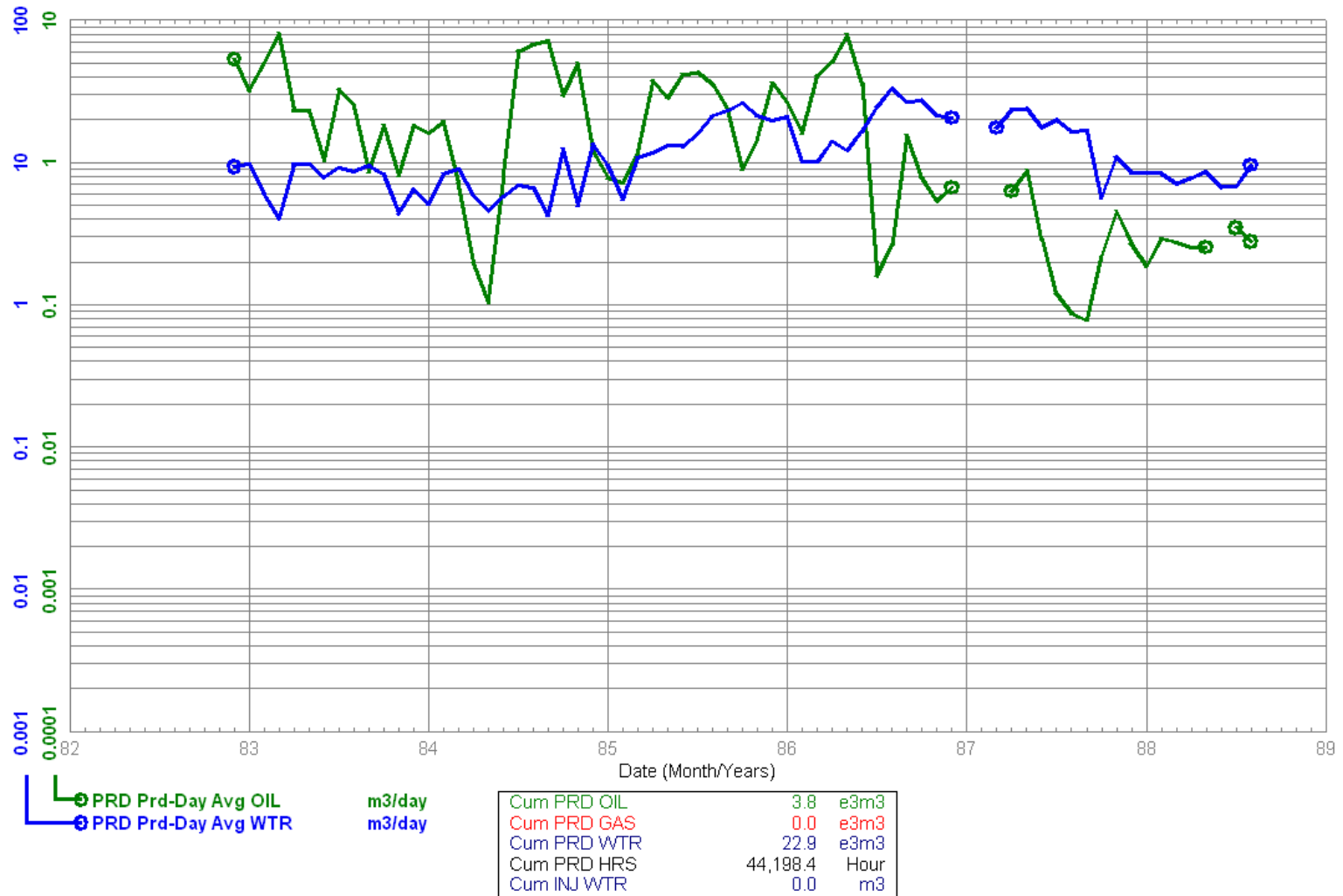
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-12
 To: 1988-08

100/01-27-001-26W1/00
 Omega Waskada
 Abandoned Producer

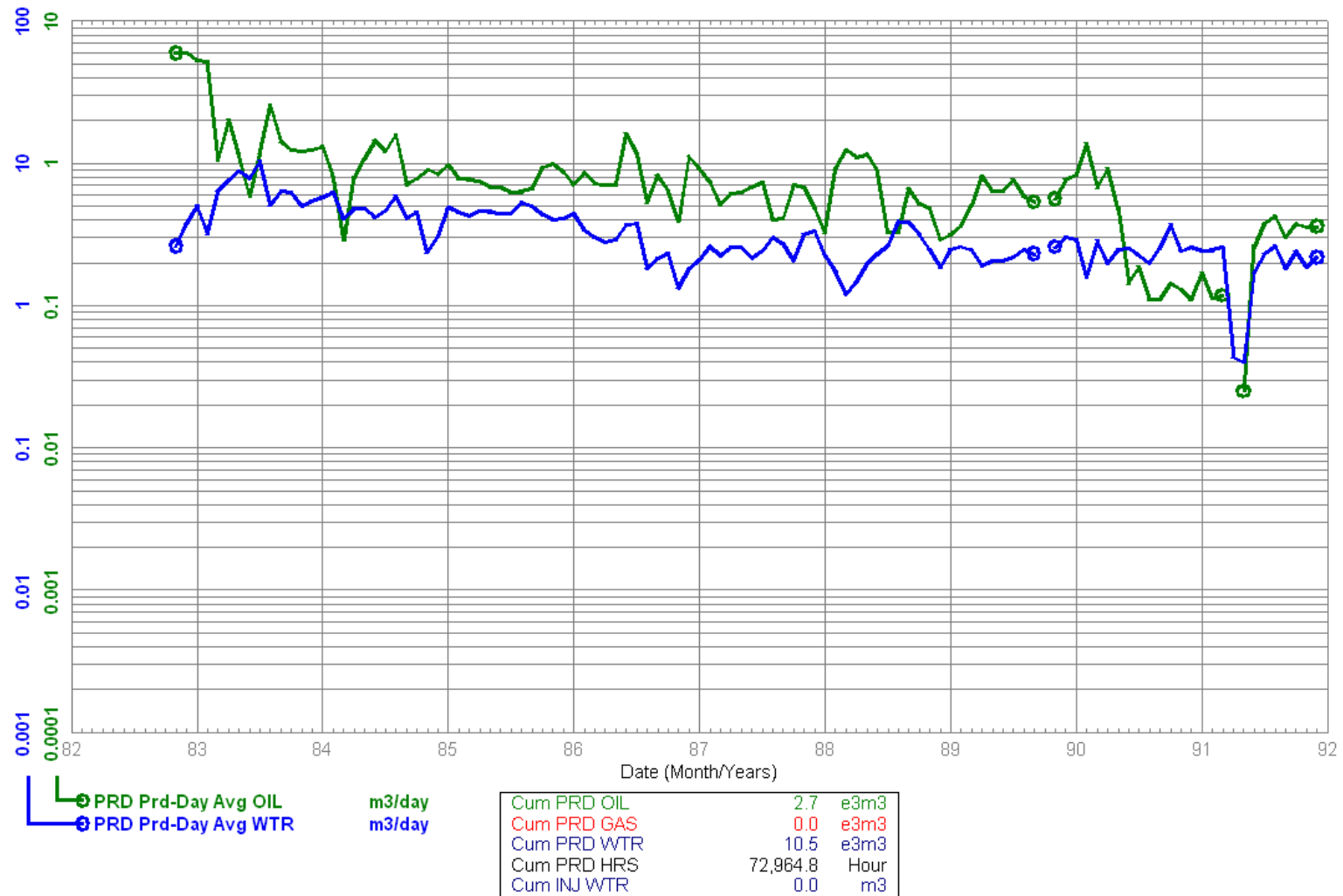
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-11
 To: 1991-12

100/02-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

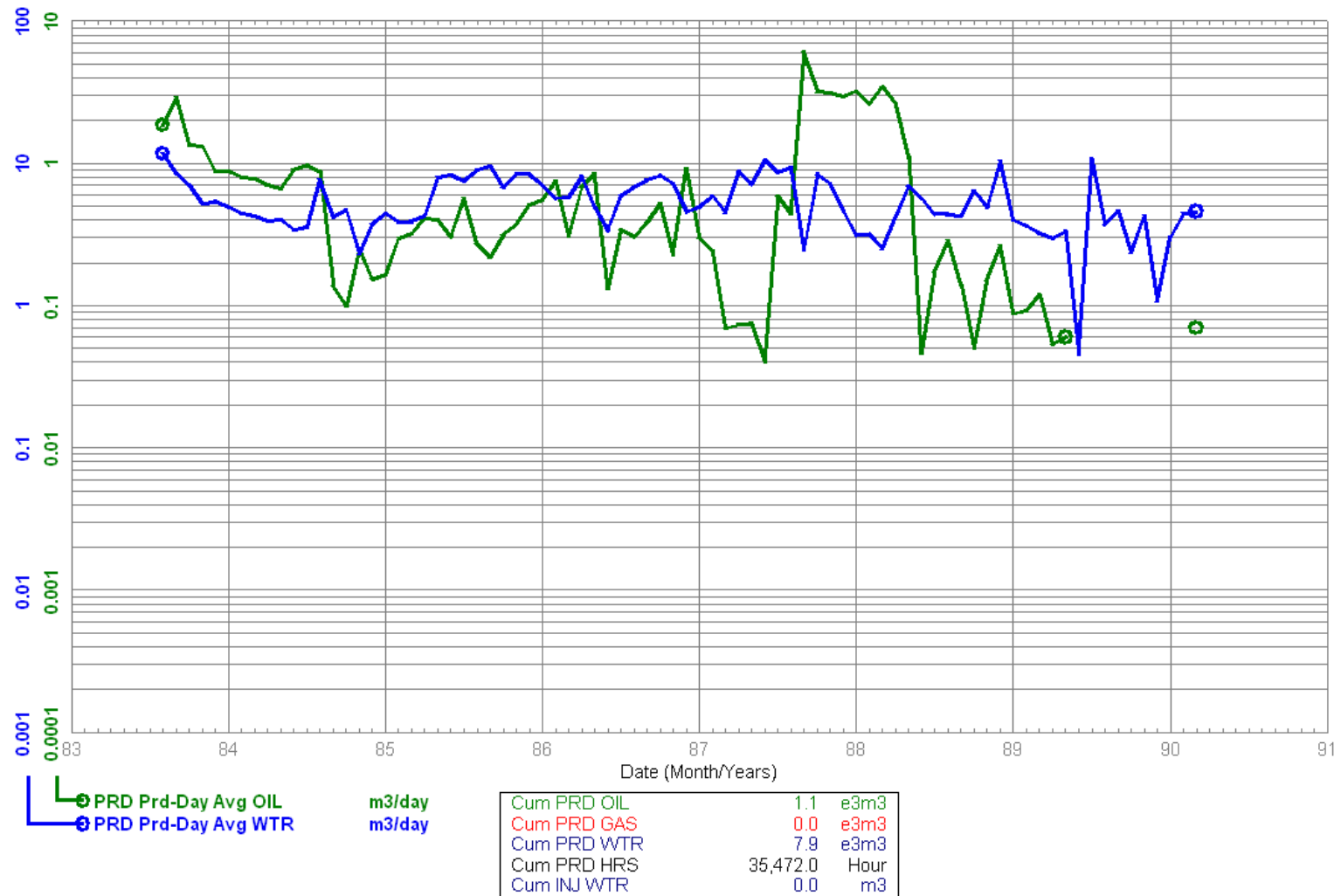
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-08
 To: 1990-03

100/02-34-001-26W1/02
 Omega Waskada Prov.
 Abandoned Producer

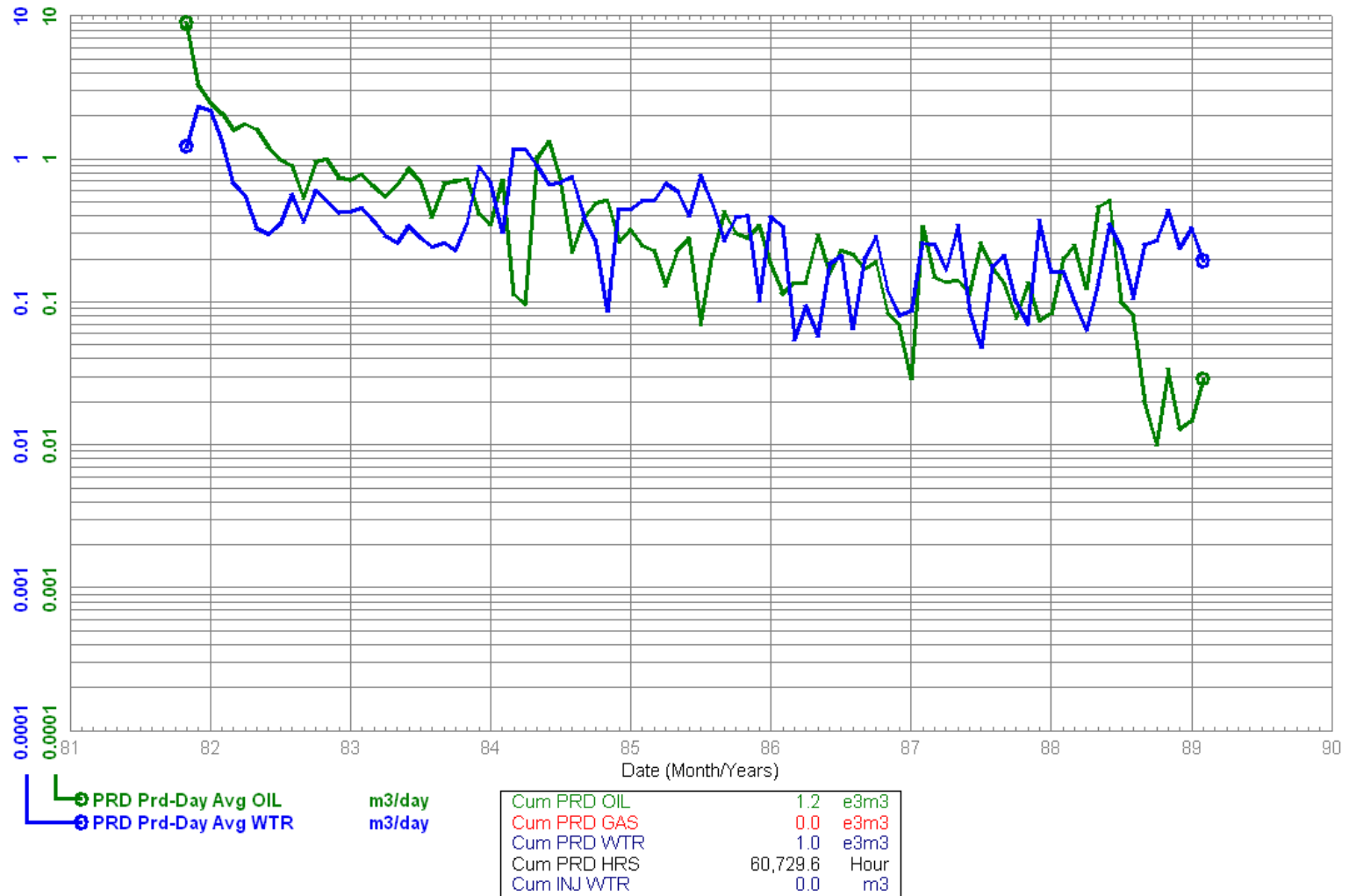
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1981-11
 To: 1989-02

100/02-35-001-26W1/00
 Omega Waskada
 Abandoned Producer

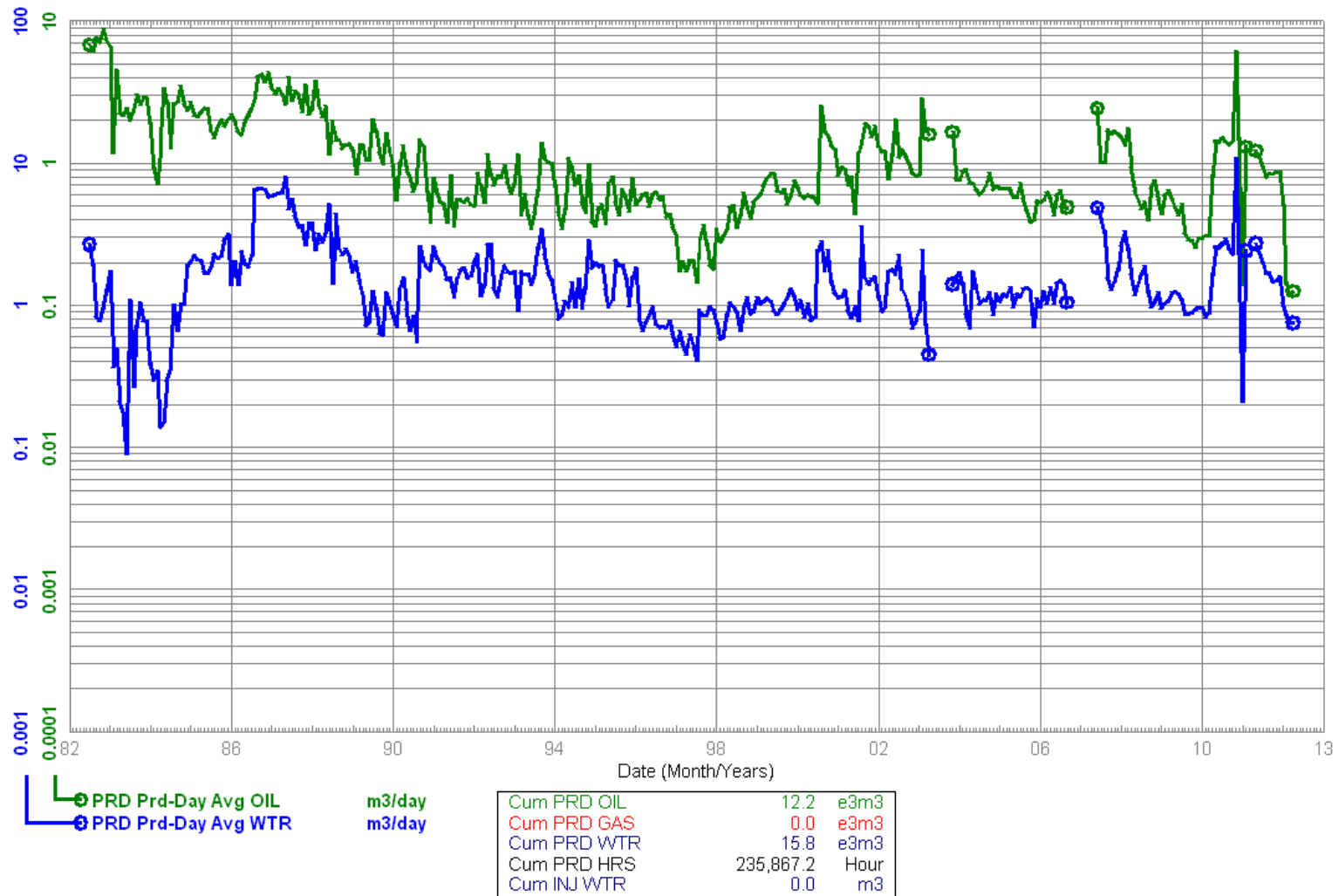
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-07
 To: 2012-04

100/03-26-001-26W1/00
 Waskada Unit No. 2
 Capable Of Oil Prod

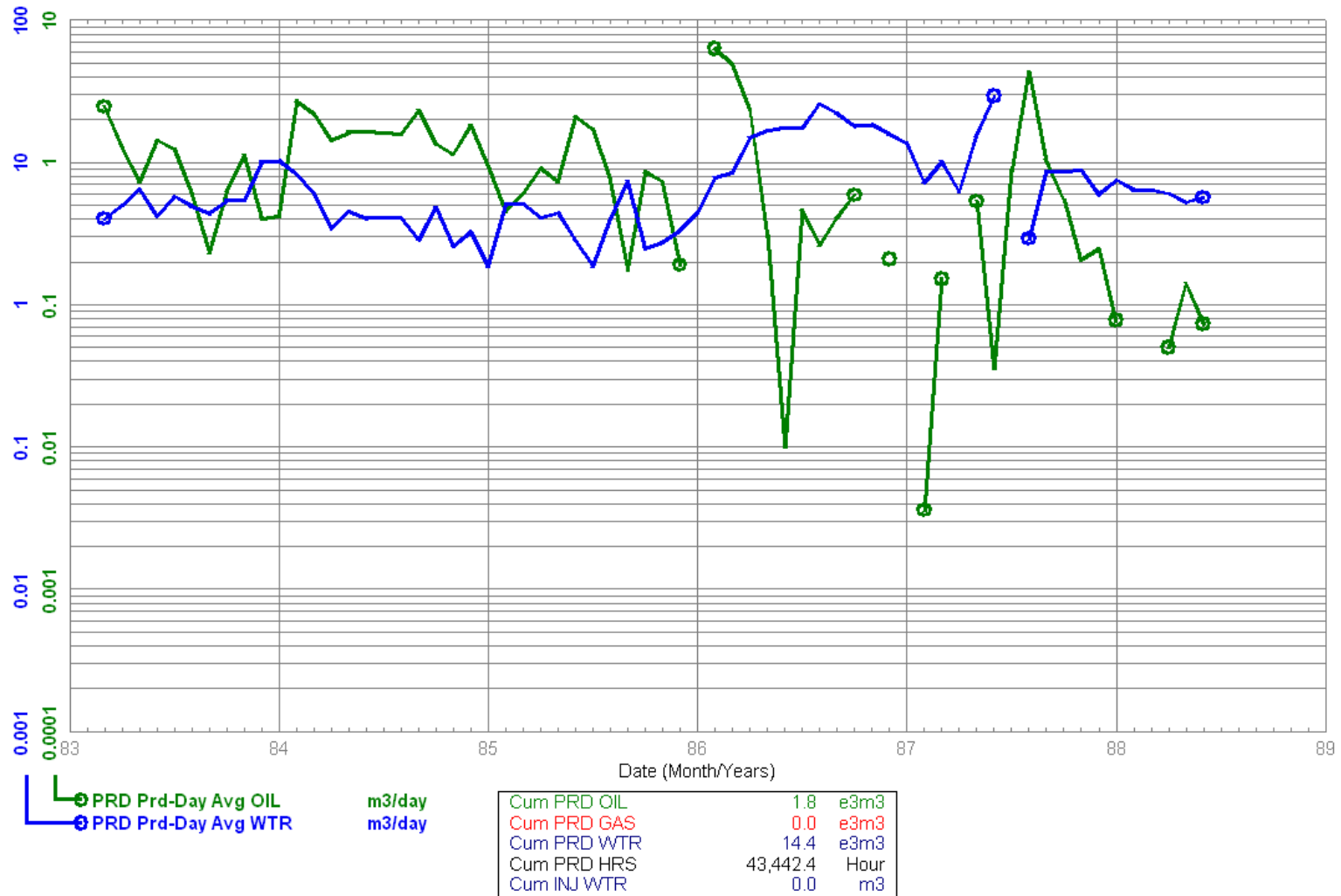
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-03
 To: 1988-06

100/03-27-001-26W1/00
 Omega Waskada
 Abandoned Producer

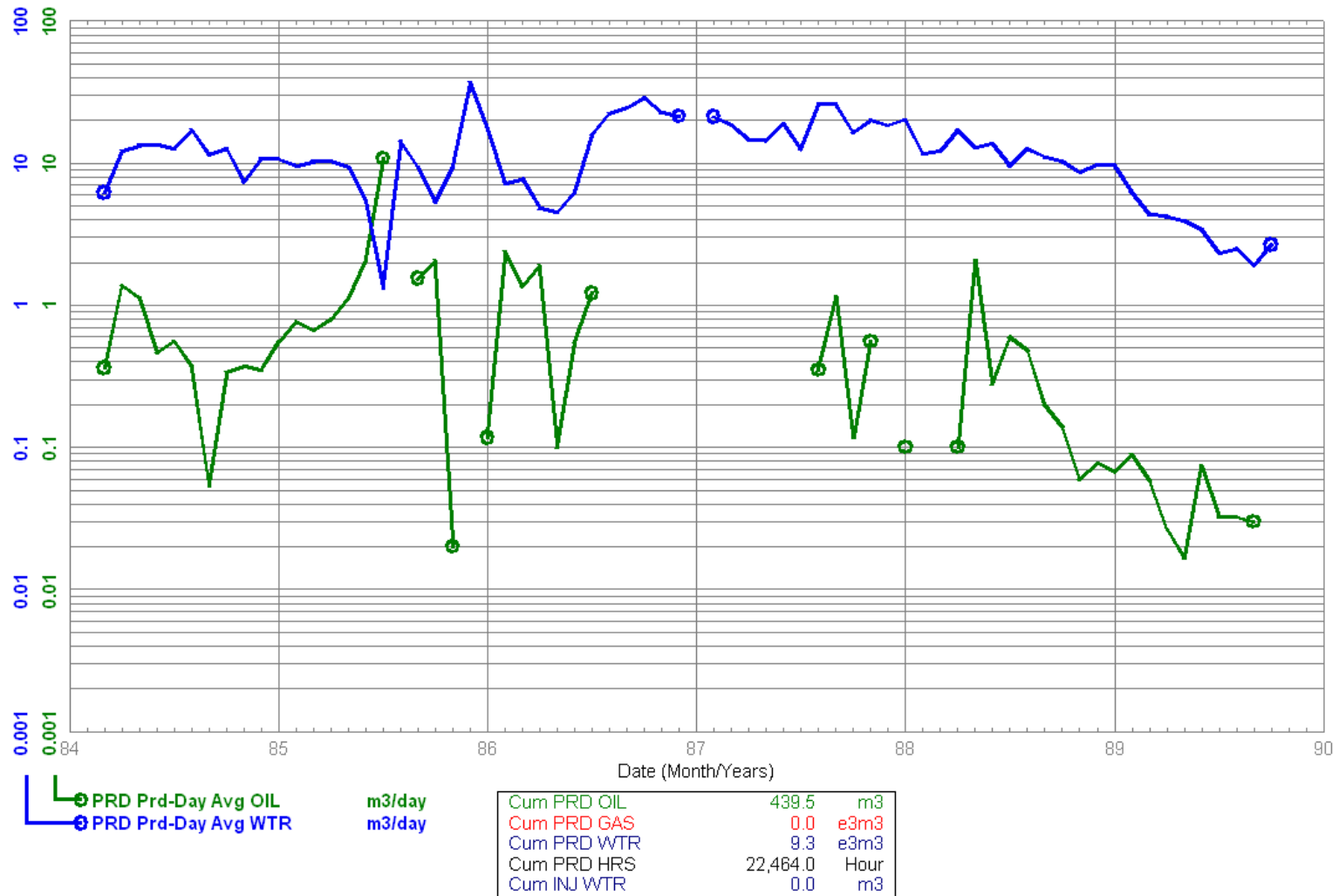
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1984-03
 To: 1989-10

100/03-35-001-26W1/02
 Omega Waskada
 Abandoned Producer

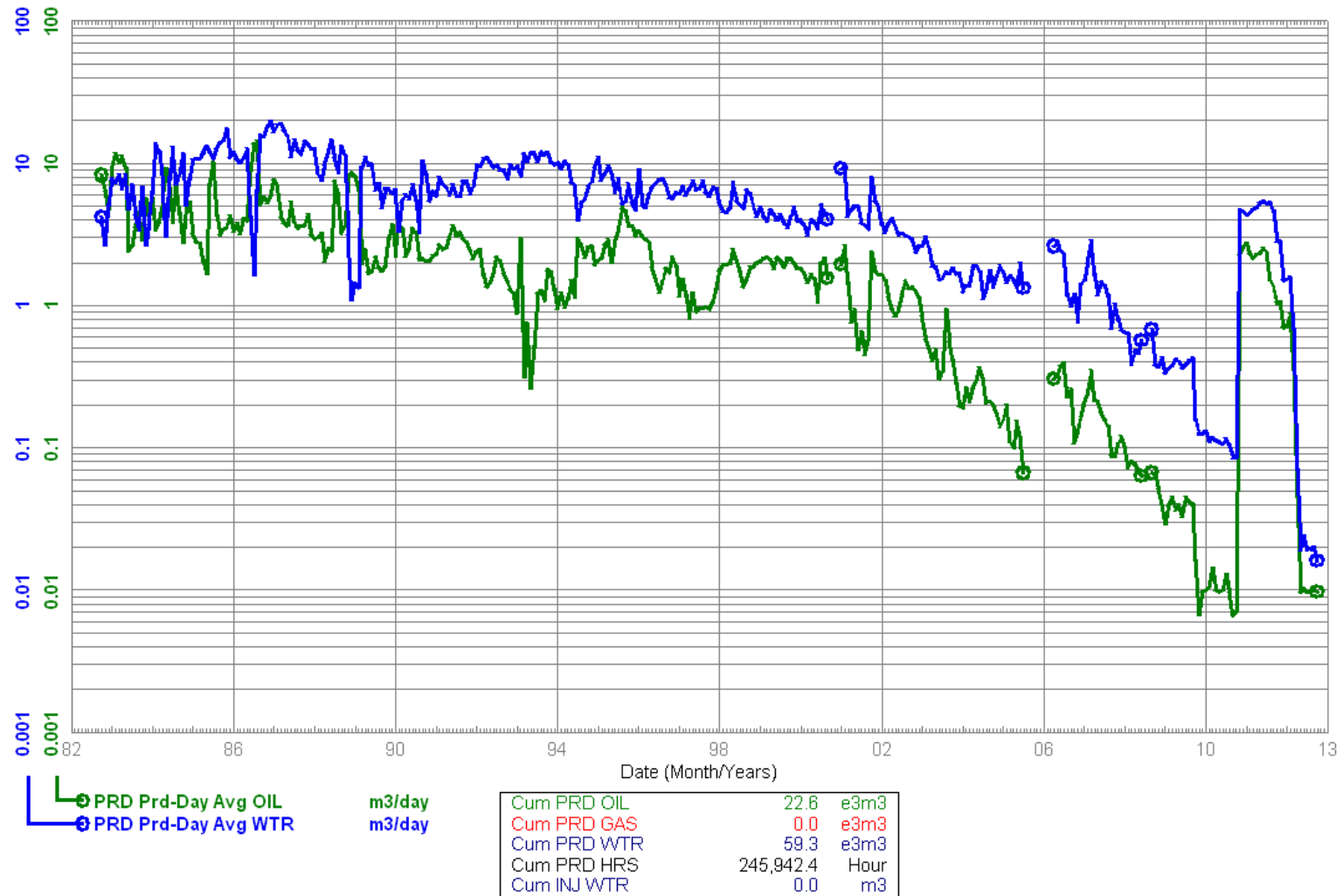
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-10
 To: 2012-10

100/04-26-001-26W1/00
 Waskada Unit No. 2
 Capable Of Oil Prod

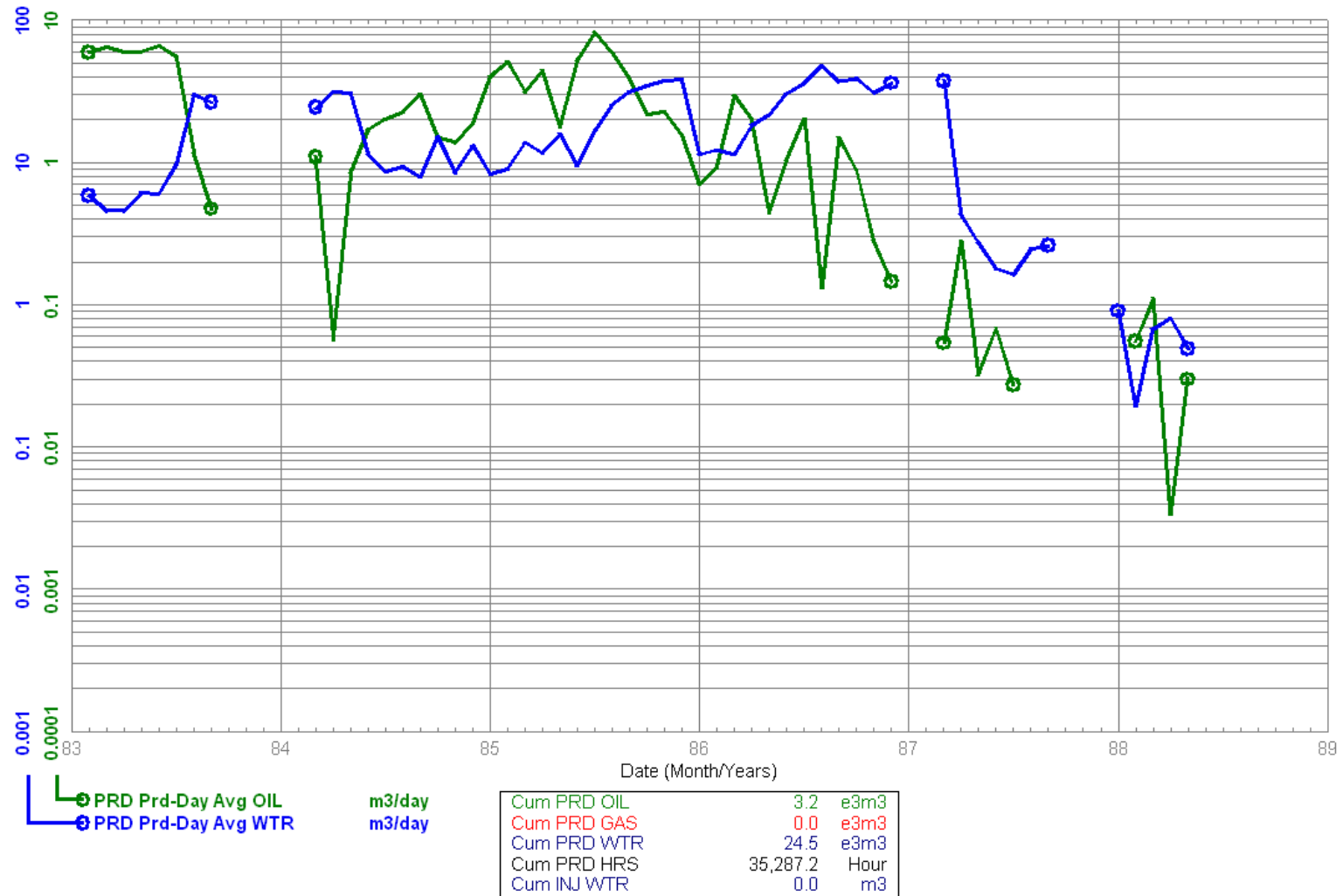
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-02
 To: 1988-05

100/04-27-001-26W1/00
 Omega Waskada
 Abandoned Producer

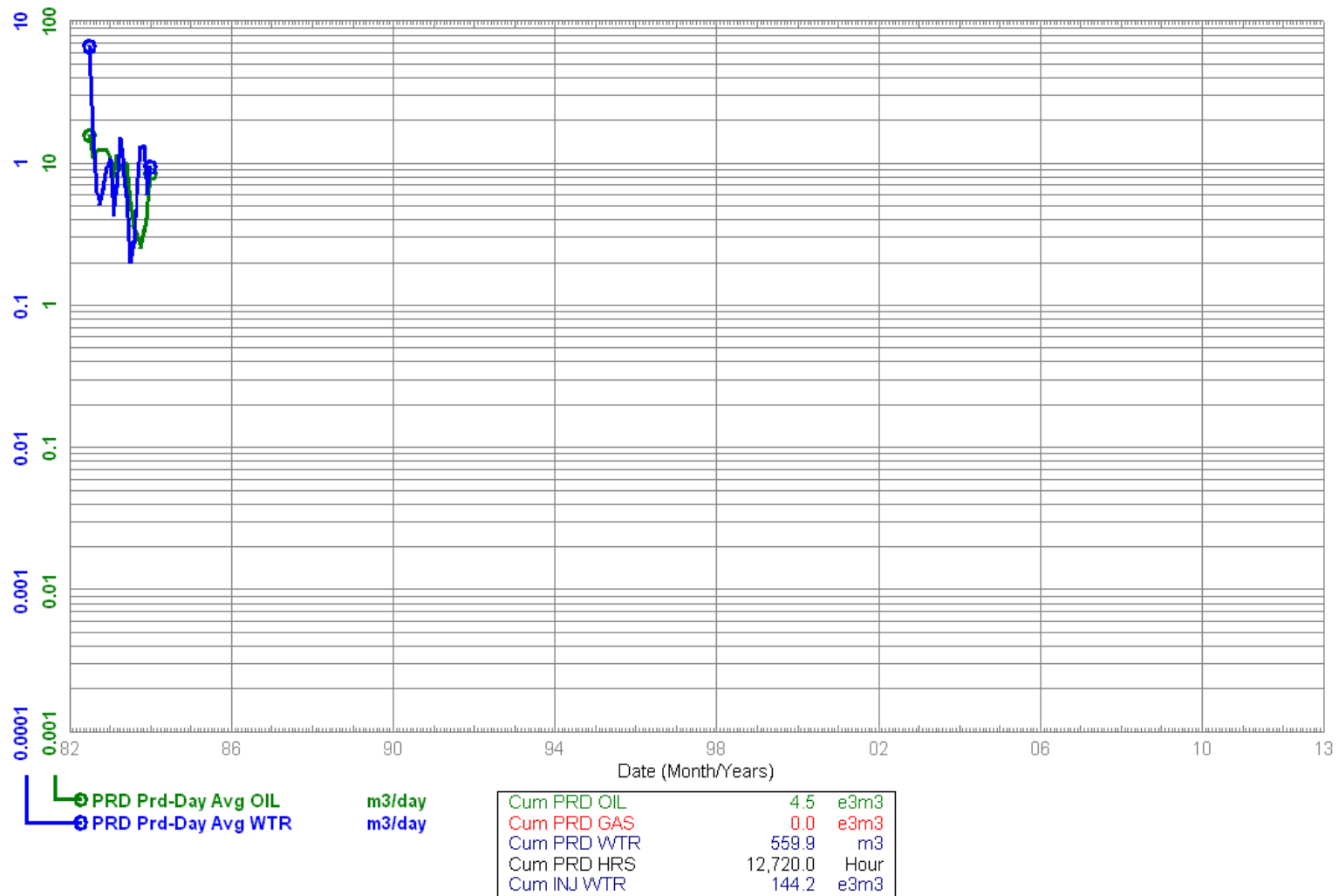
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-07
 To: 1984-01

100/05-26-001-26W1/00
 Waskada Unit No. 2 WIW/
 Water Inj Well

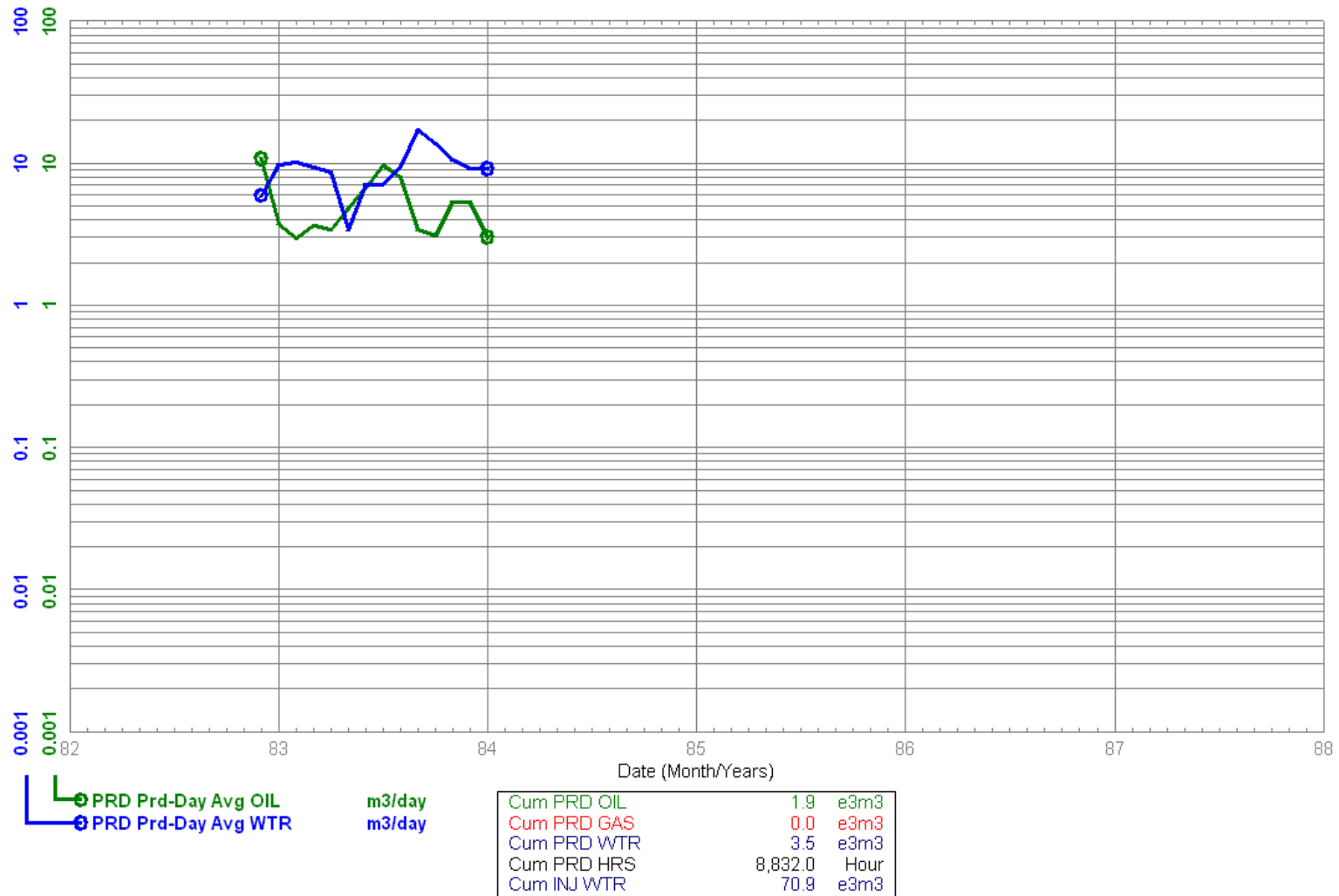
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-12
 To: 1984-01

100/05-27-001-26W1/00
 Omega Waskada WW
 Abandoned Water Inj Well

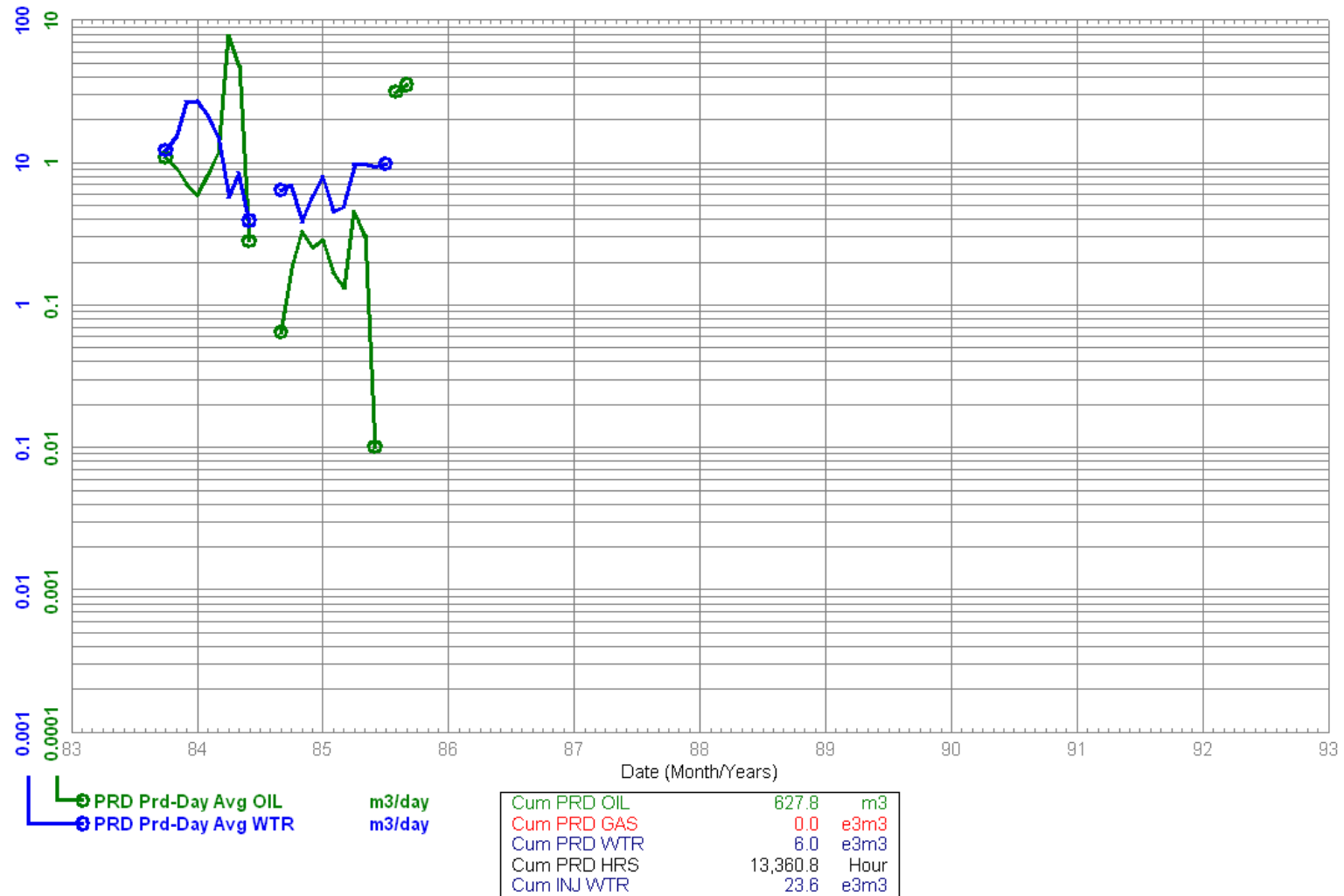
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-10
 To: 1985-09

100/05-35-001-26W1/00
 Waskada Unit No. 2 WIW/
 Abandoned Water Inj Well

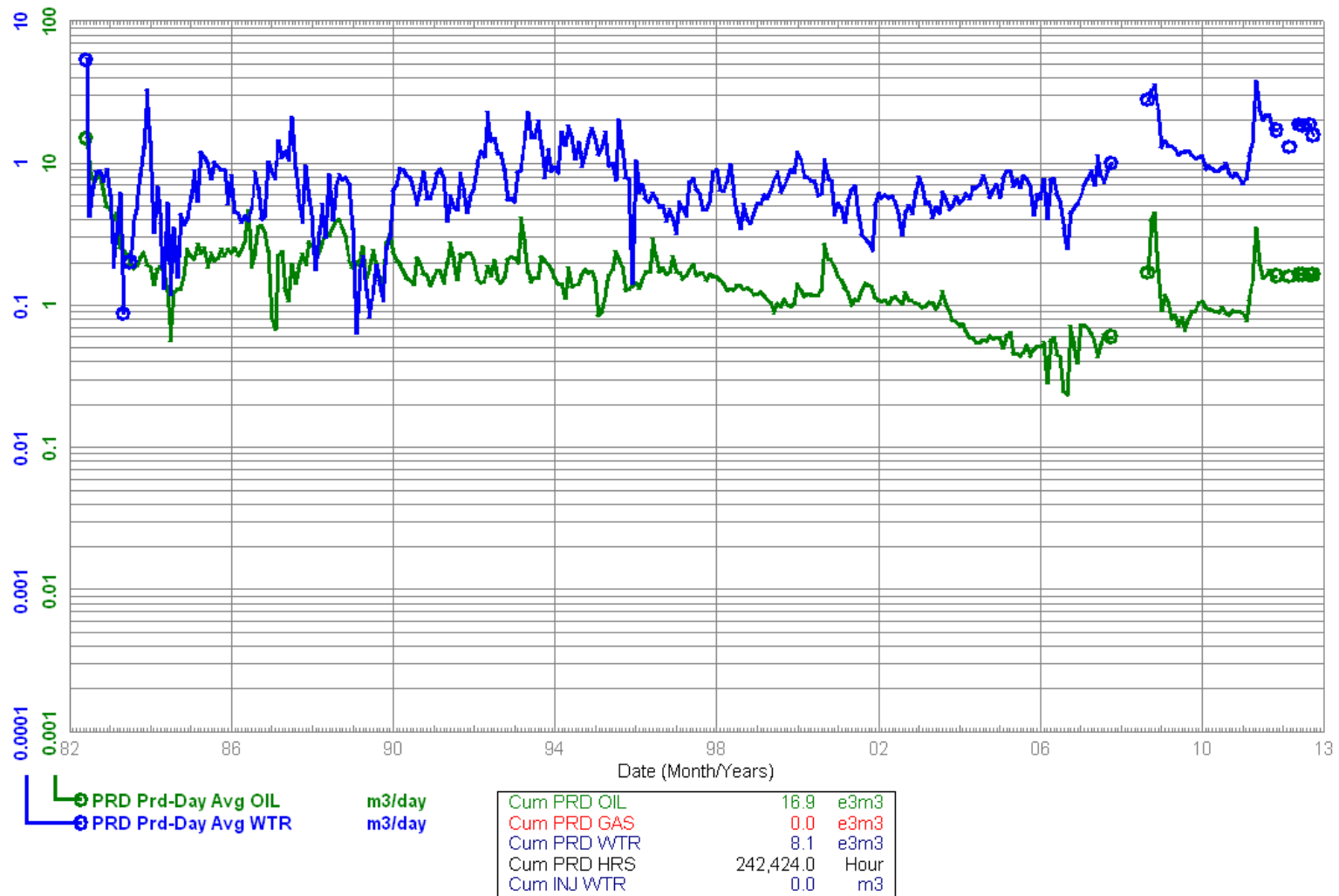
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-06
 To: 2012-10

100/06-26-001-26W1/00
 Waskada Unit No. 2
 Capable Of Oil Prod

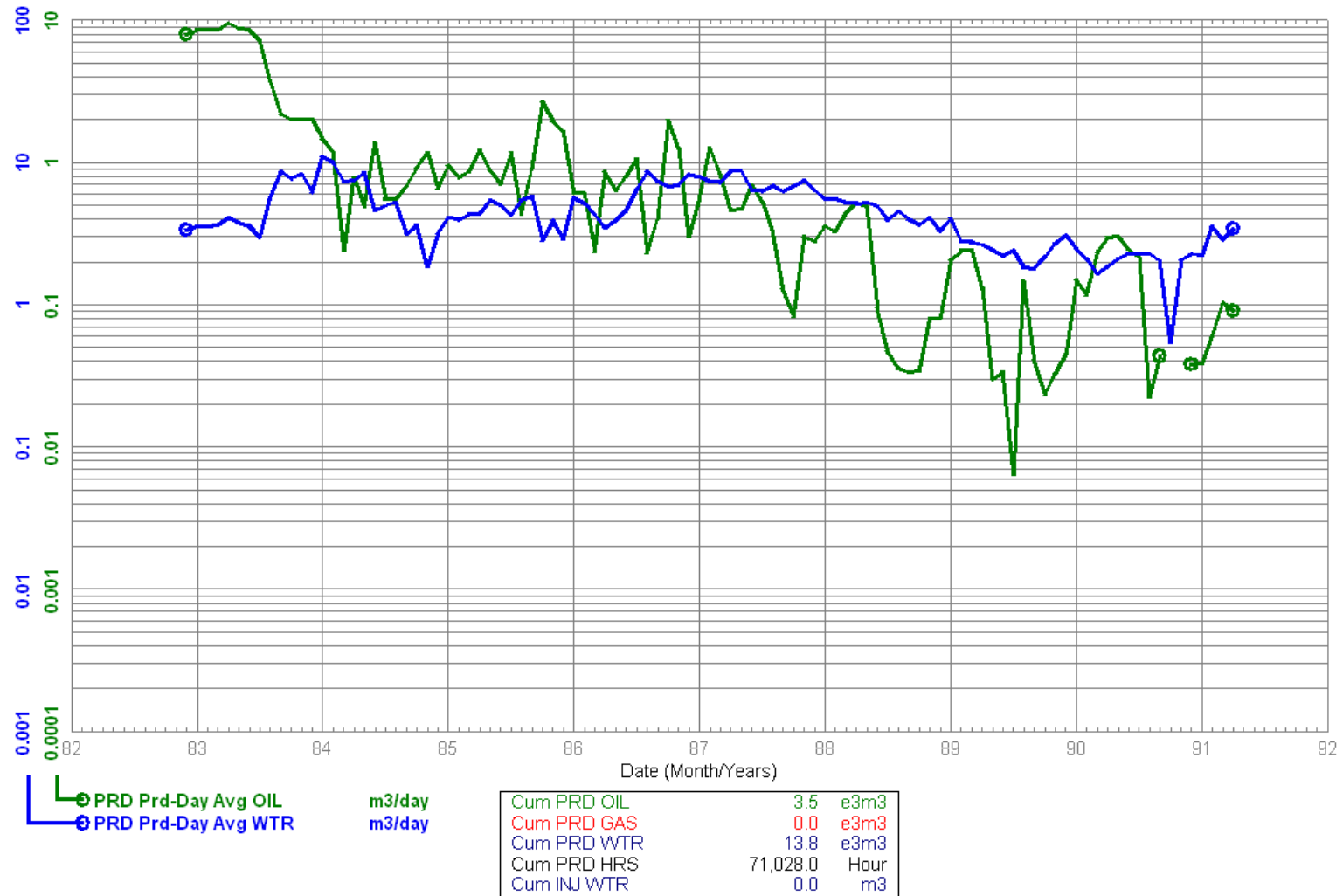
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-12
 To: 1991-04

100/06-35-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

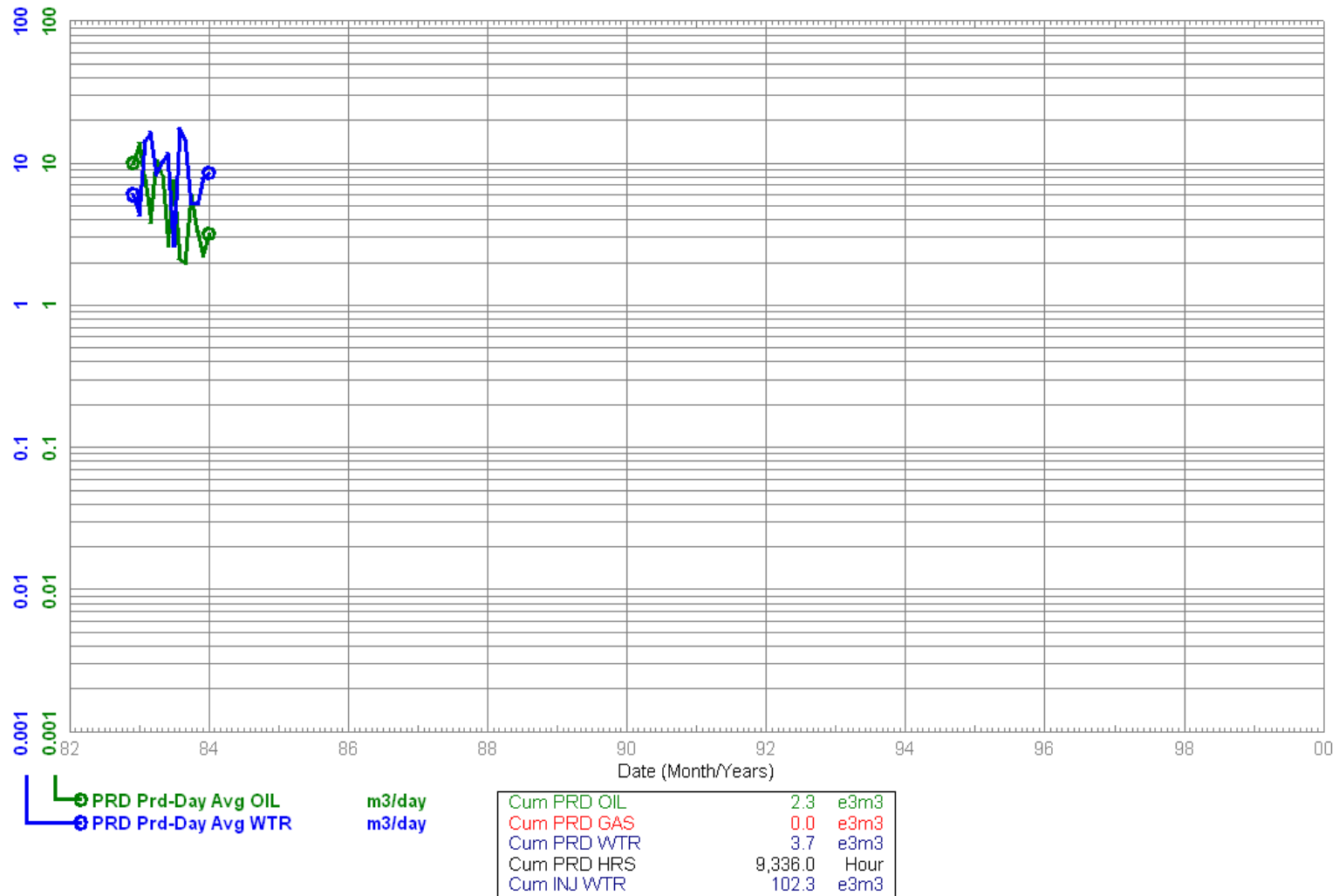
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1982-12
To: 1984-01

100/07-27-001-26W1/00
Waskada Unit No. 2 WIW
Abandoned Water Inj Well

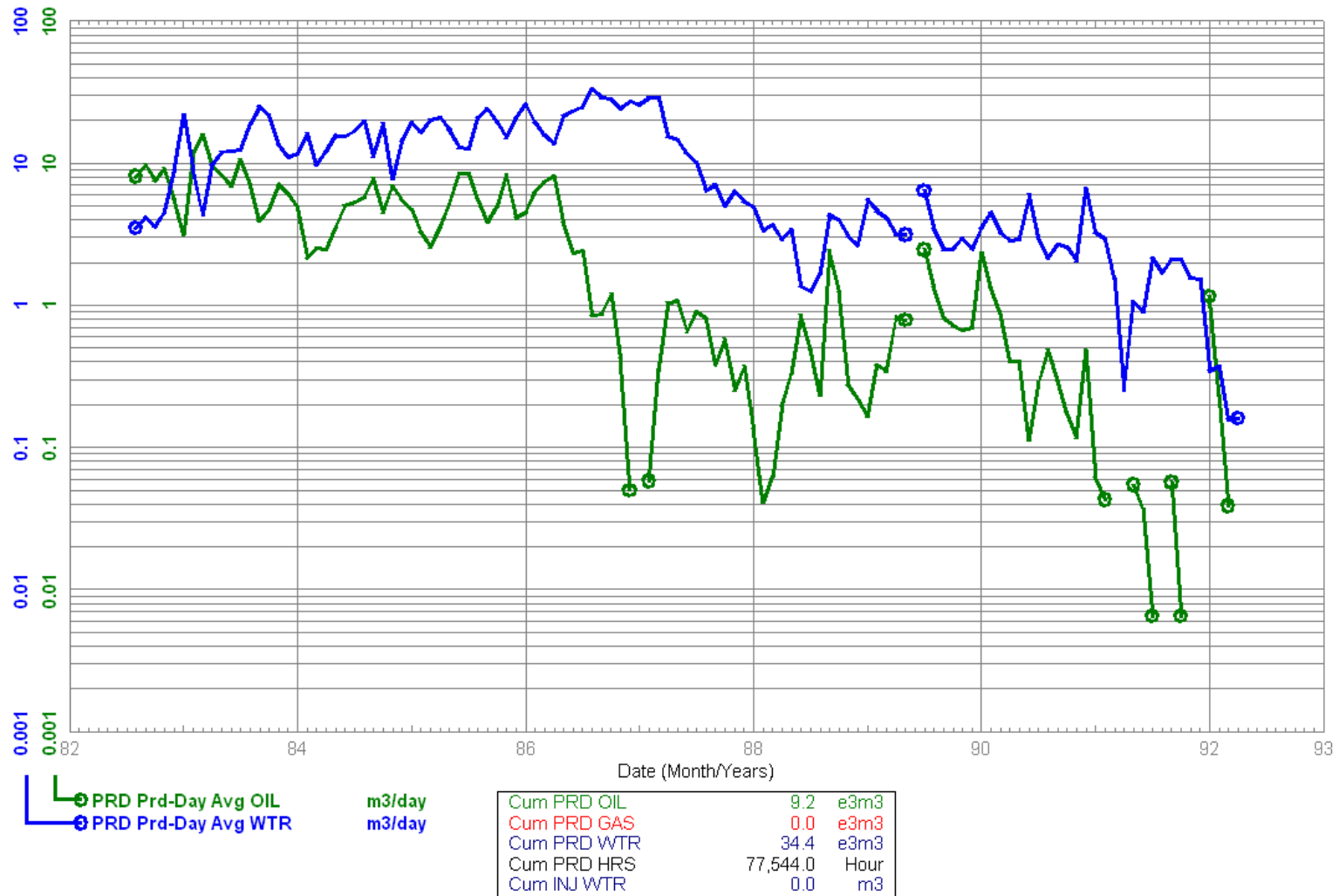
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-08
 To: 1992-04

100/08-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

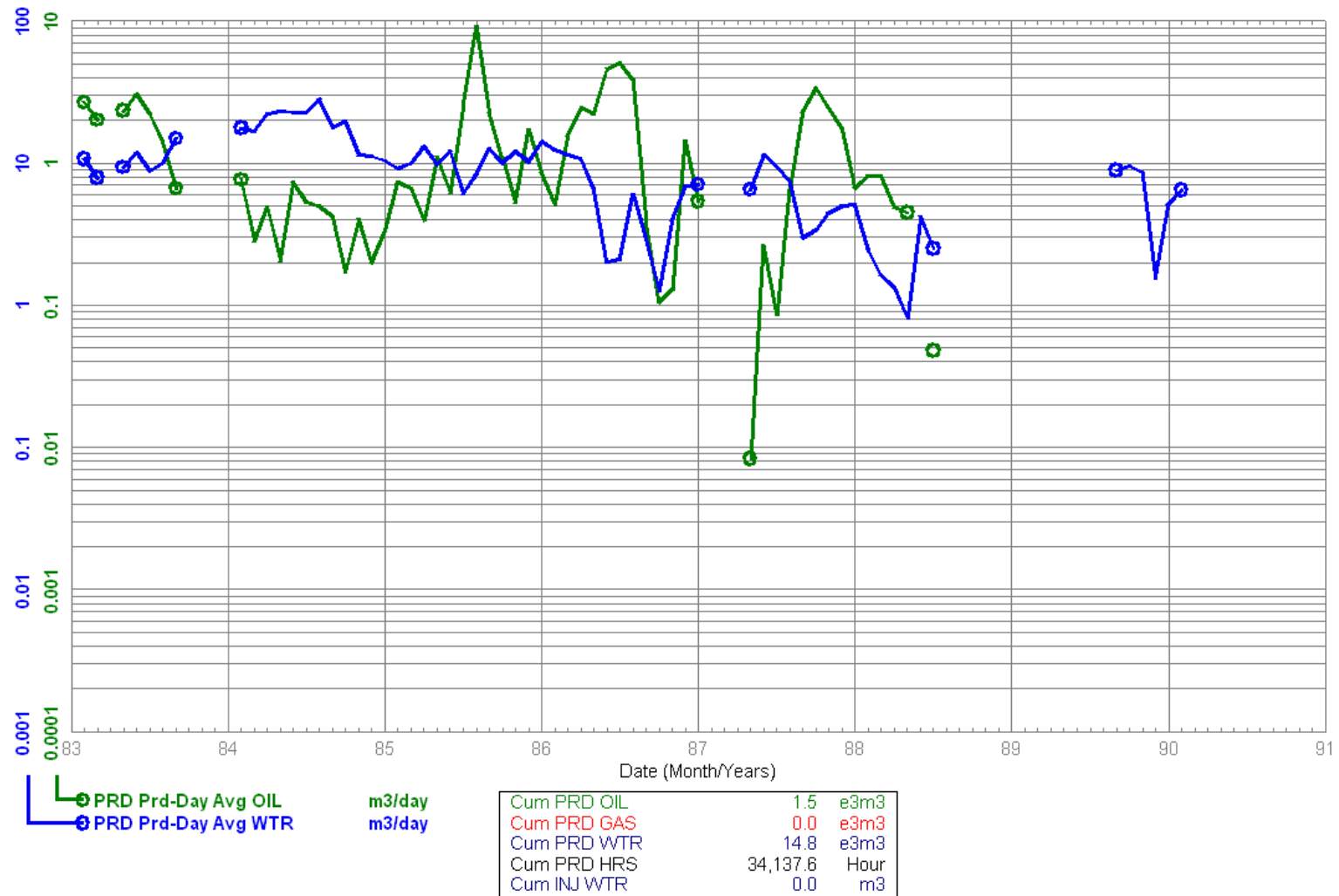
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-02
 To: 1990-02

100/08-34-001-26W1/00
 Omega Waskada Prov.
 Abandoned Producer

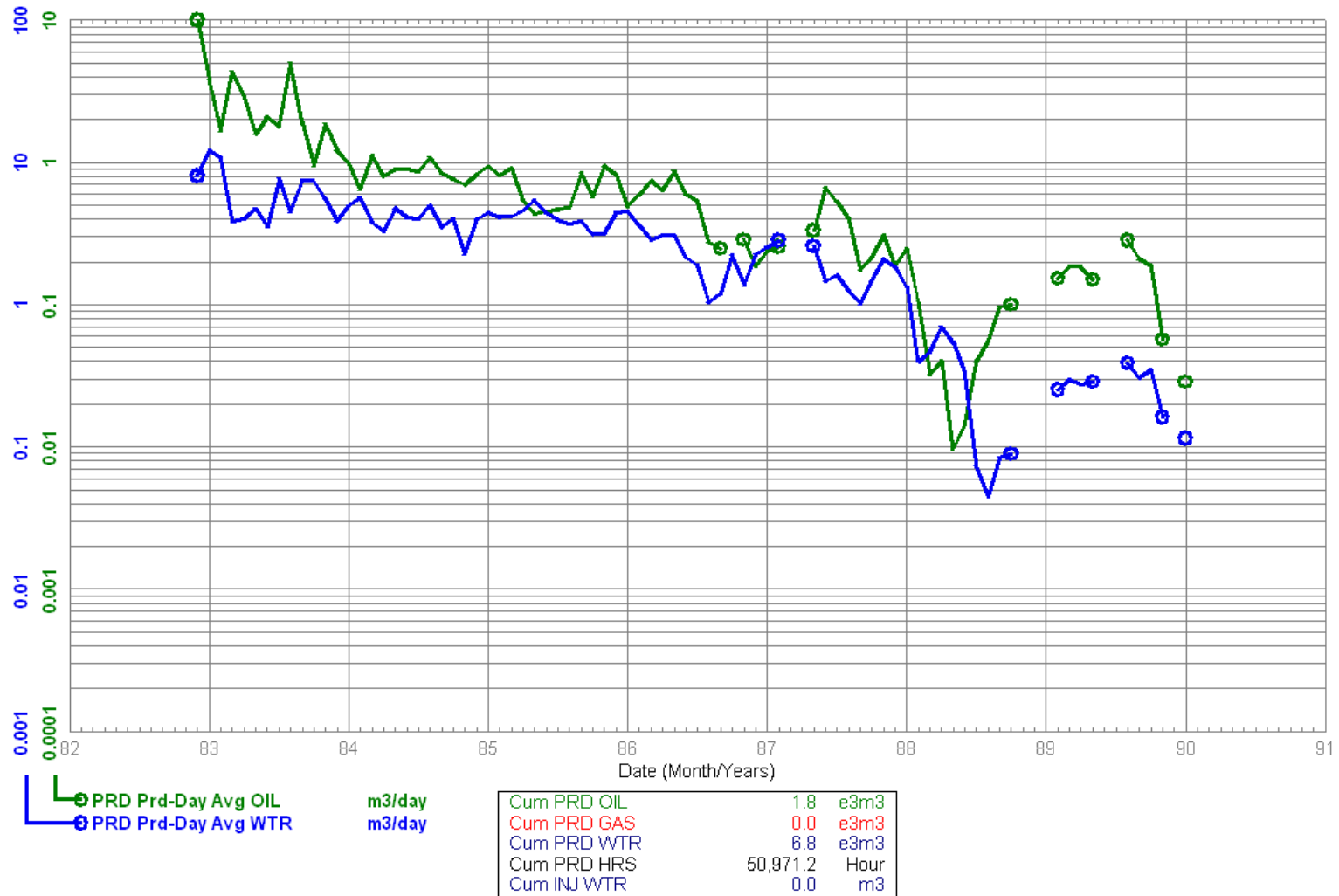
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-12
 To: 1990-01

100/09-27-001-26W1/00
 Omega Waskada
 Abandoned Producer

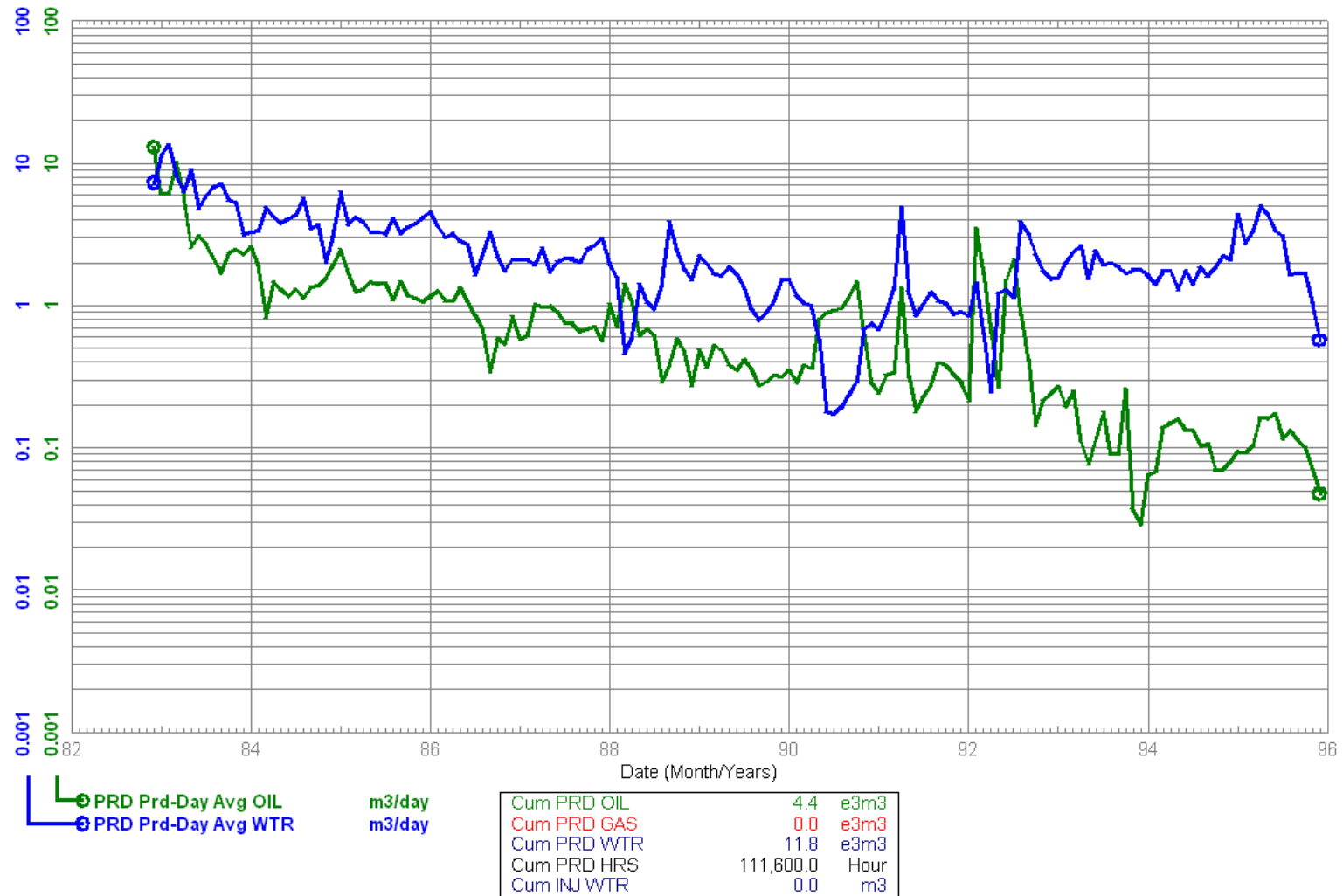
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-12
 To: 1995-12

100/10-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

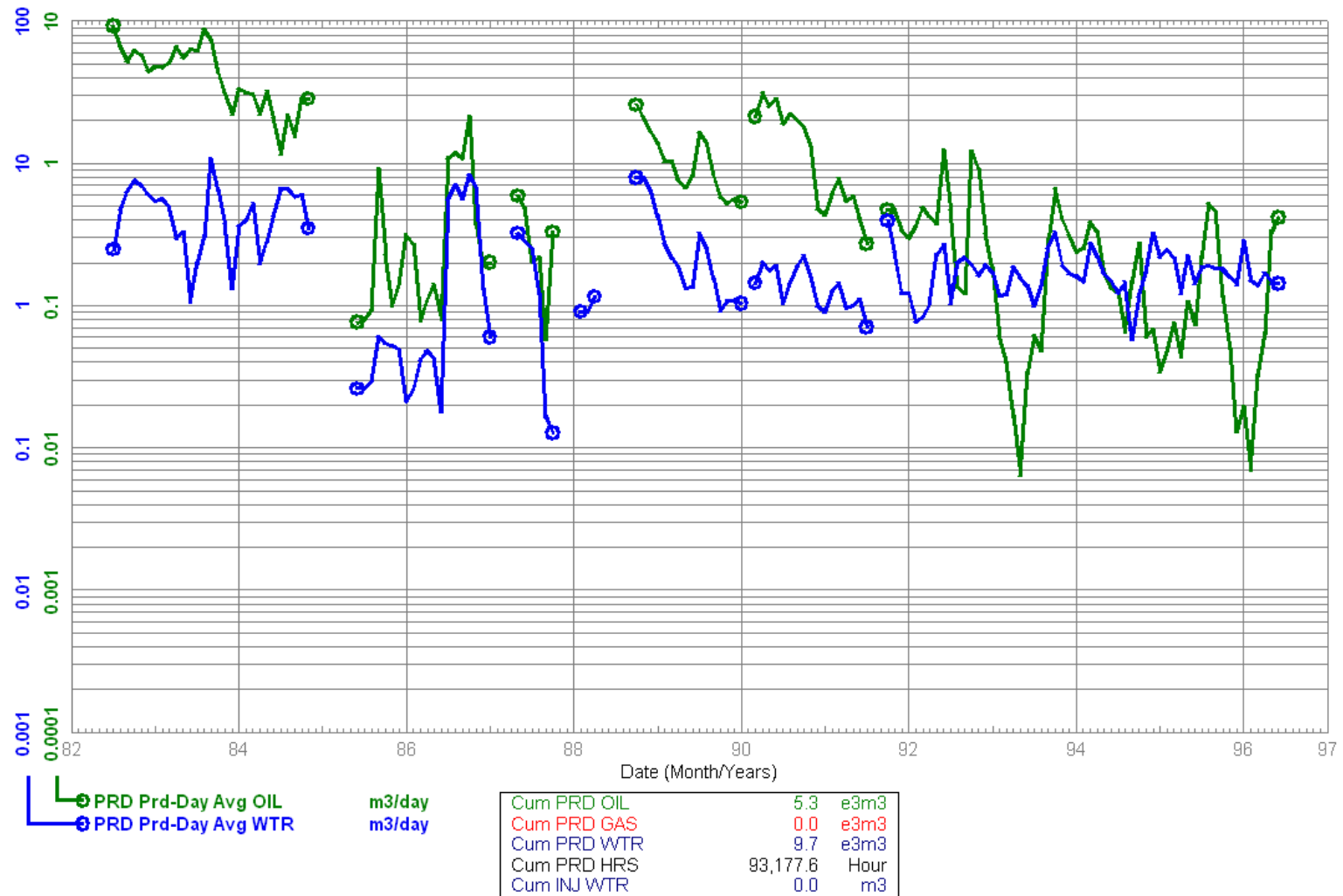
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-07
 To: 1996-06

100/11-26-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

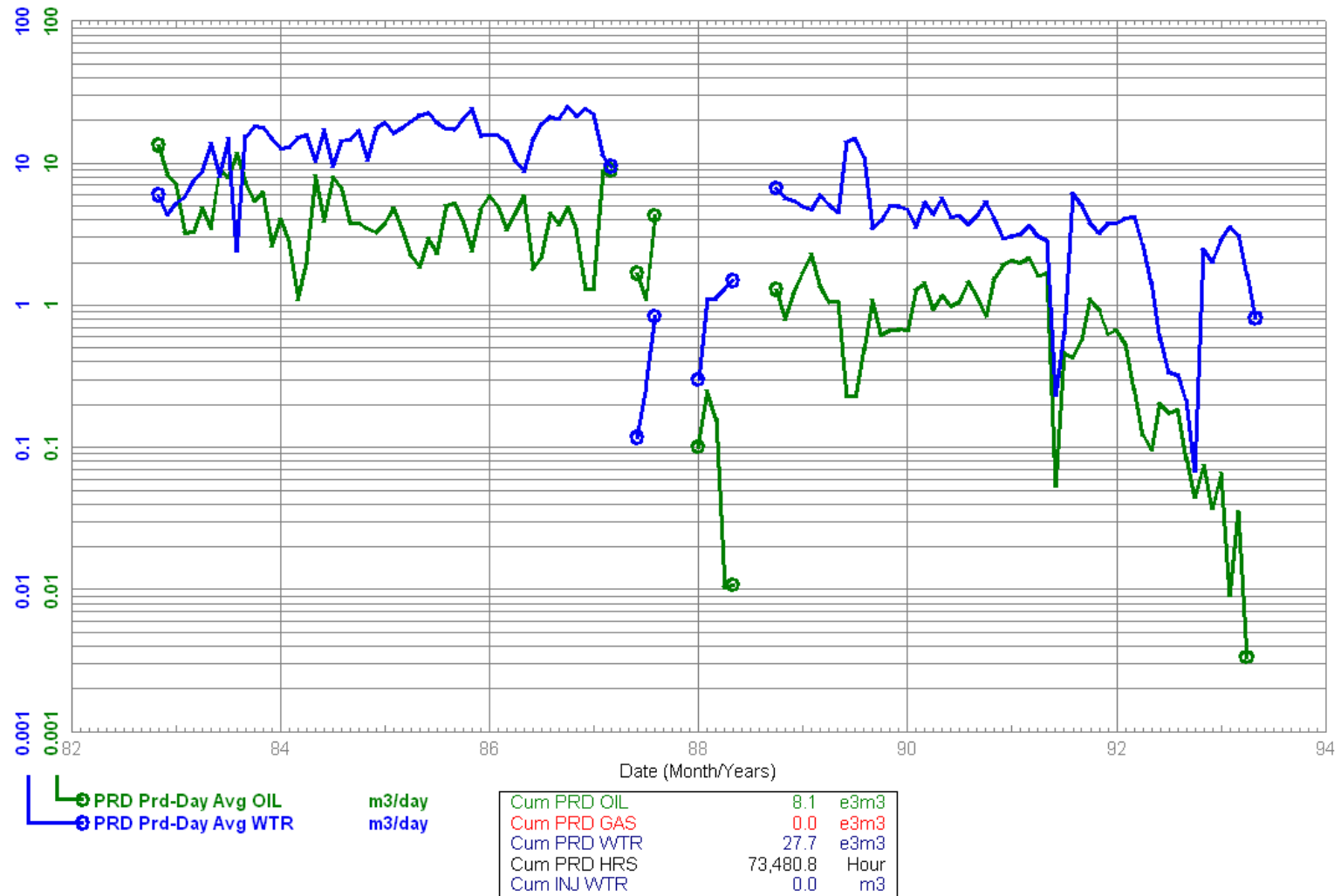
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-11
 To: 1993-05

100/12-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

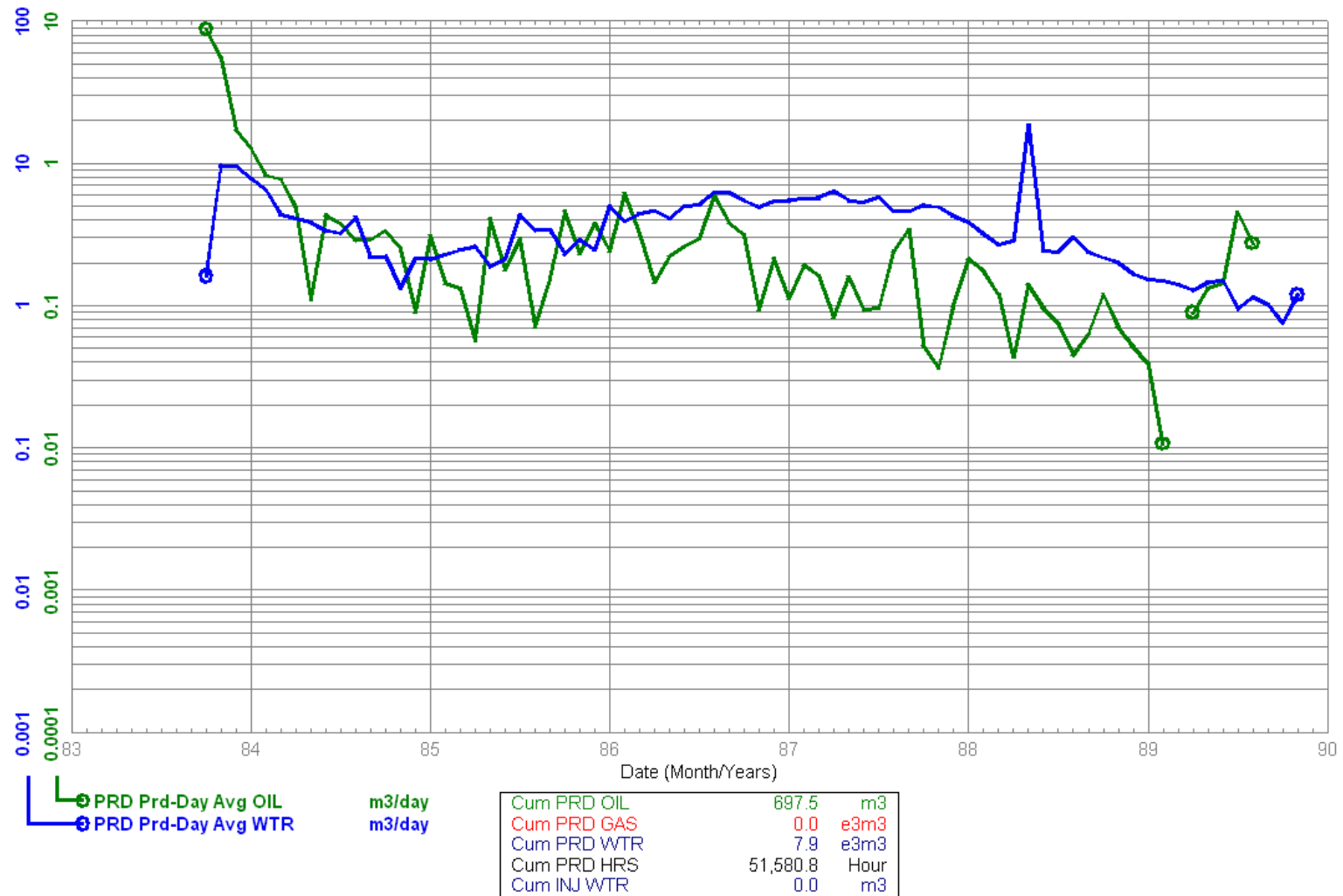
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-10
 To: 1989-11

100/12-35-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

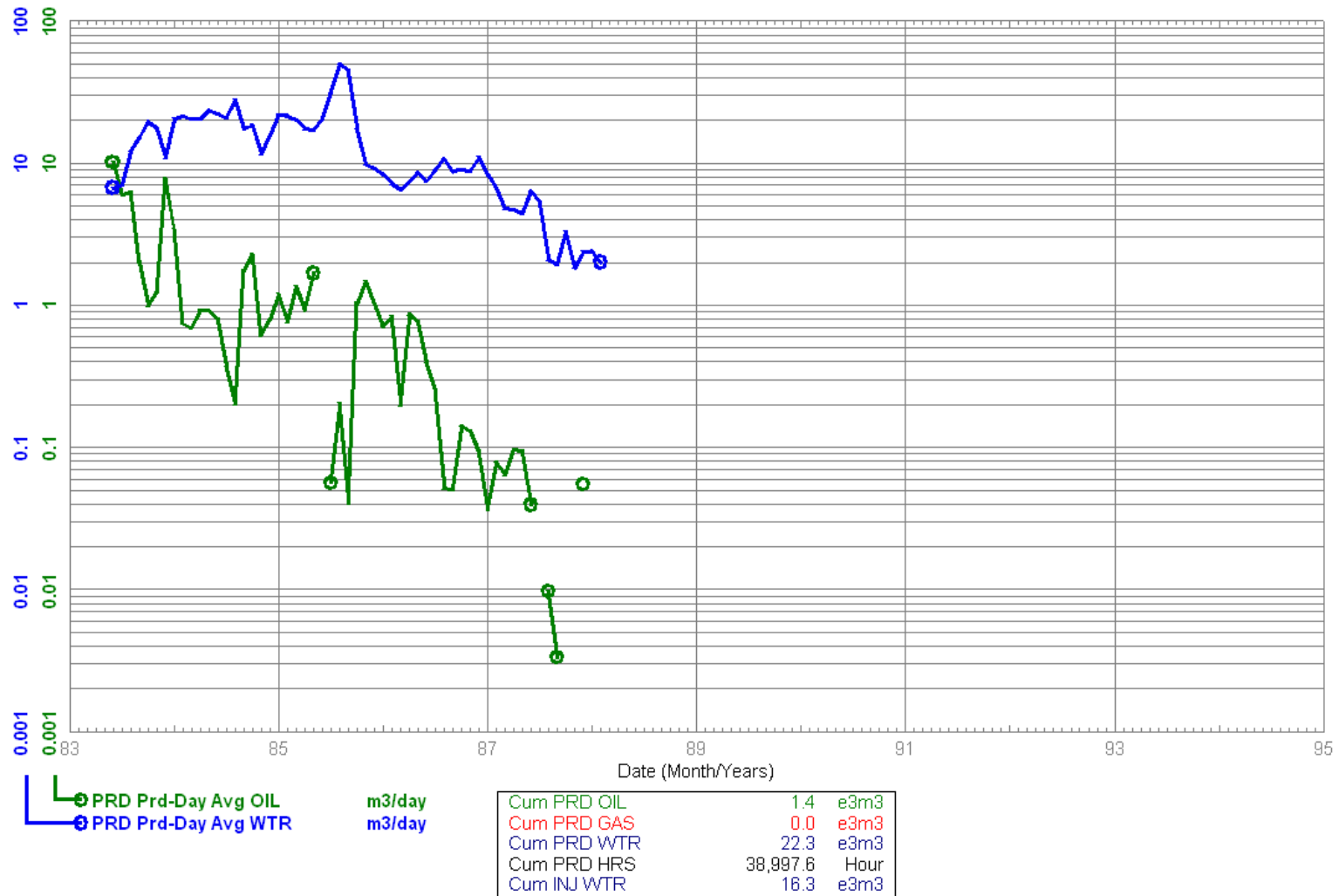
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-06
 To: 1988-02

100/13-23-001-26W1/00
 Waskada Unit No. 2 WIW
 Abandoned Water Inj Well

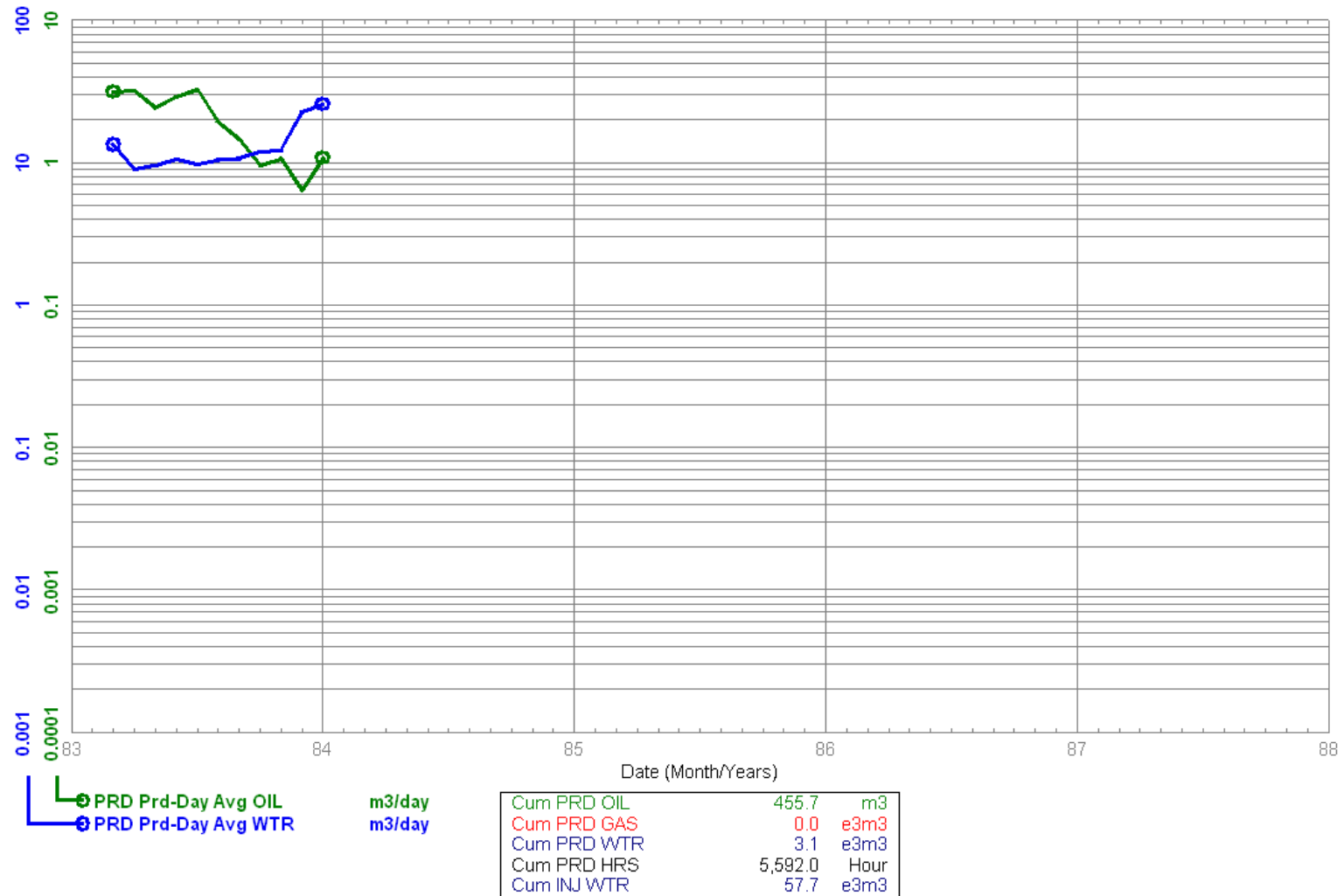
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-03
 To: 1984-01

100/13-26-001-26W1/00
 Omega Waskada WW
 Abandoned Water Inj Well

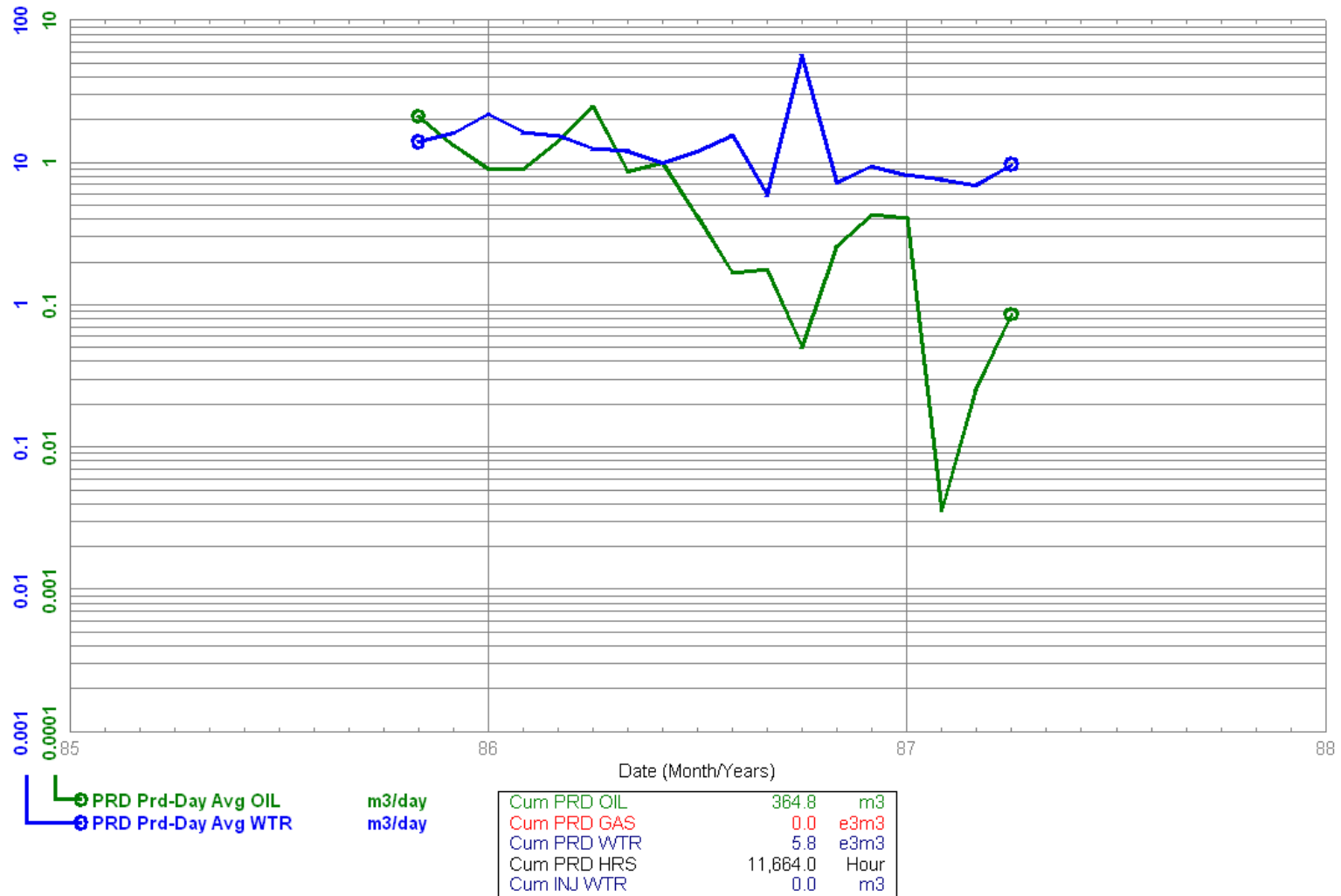
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1985-11
 To: 1987-04

100/14-22-001-26W1/00
 Omega Waskada
 Abandoned Producer

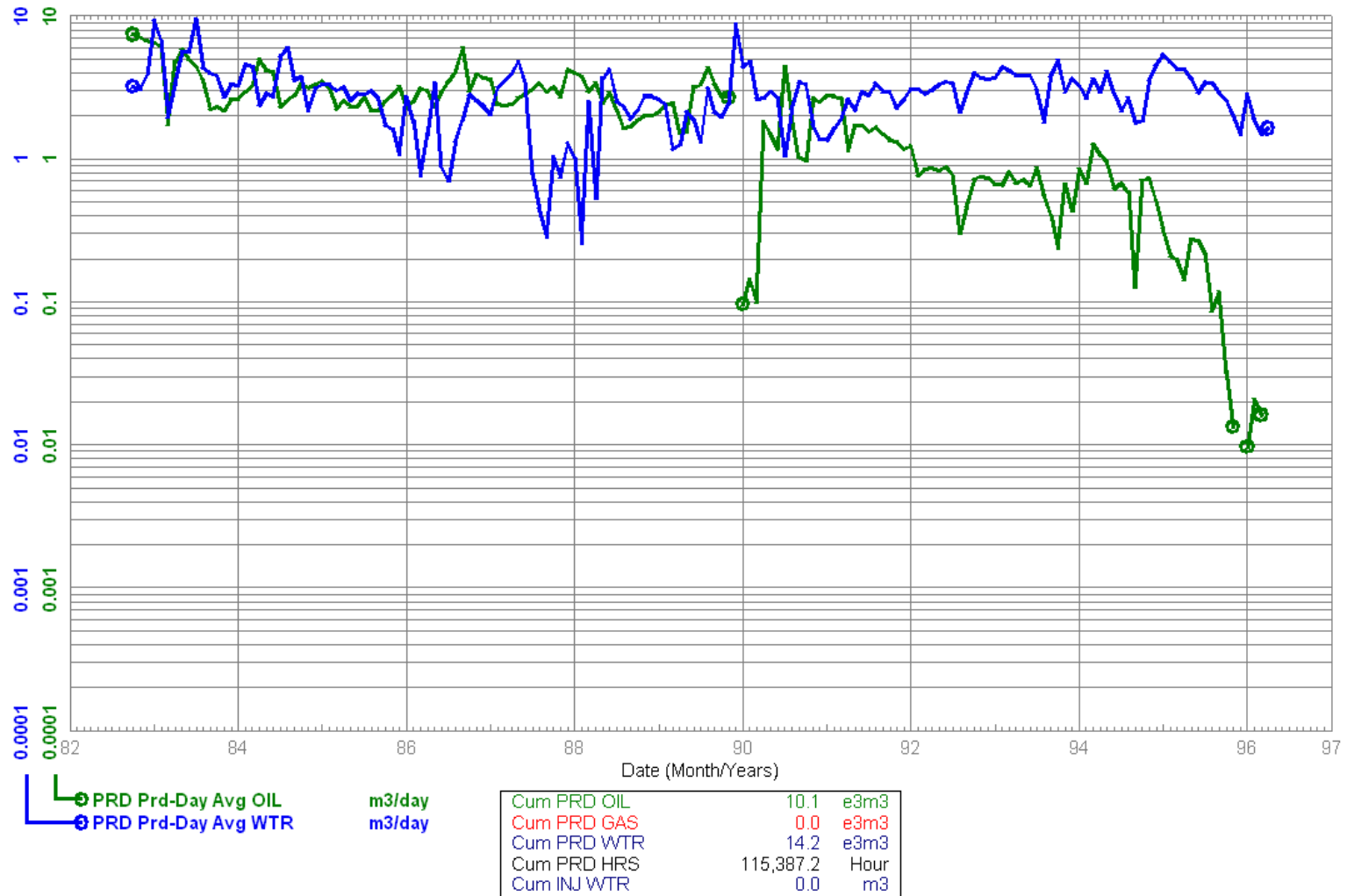
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-10
 To: 1996-04

100/14-23-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

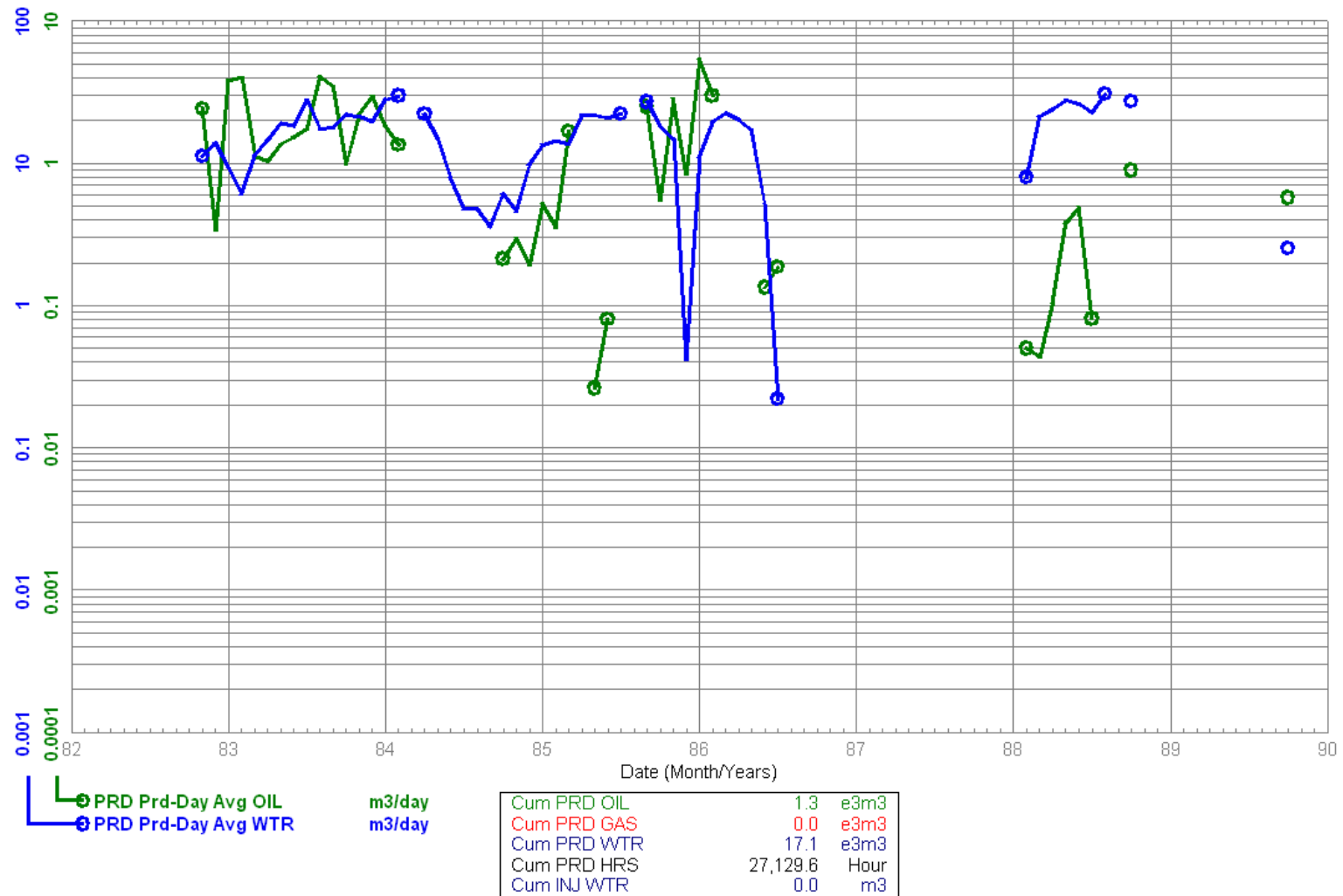
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1982-07
 To: 1989-10

100/14-26-001-26W1/00
 Omega Waskada
 Abandoned Producer

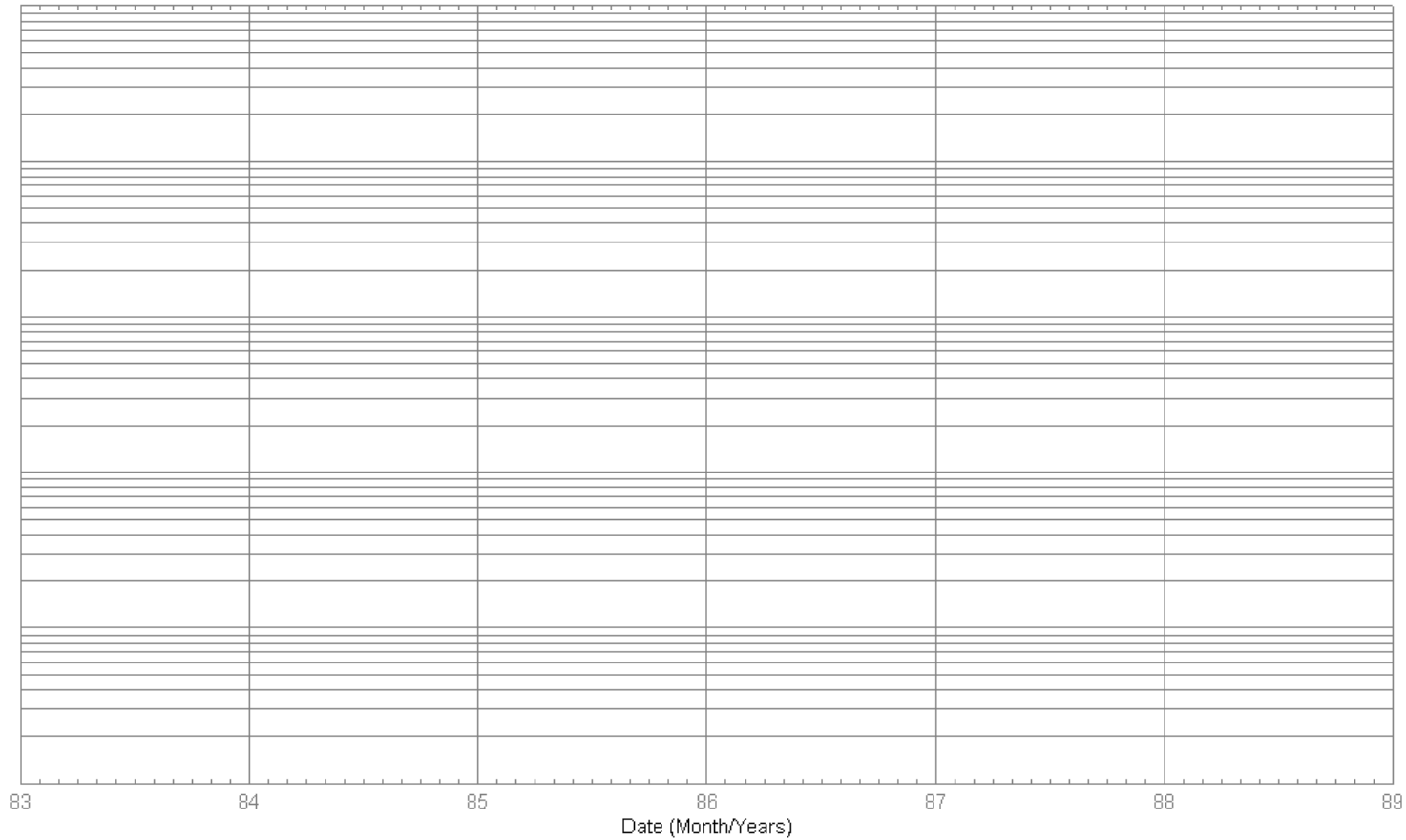
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-12
 To: 1988-02

100/16-22-001-26W1/00
 Omega Waskada Prov. WIW
 Abandoned Water Inj Well

Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



PRD Prd-Day Avg OIL
 PRD Prd-Day Avg WTR

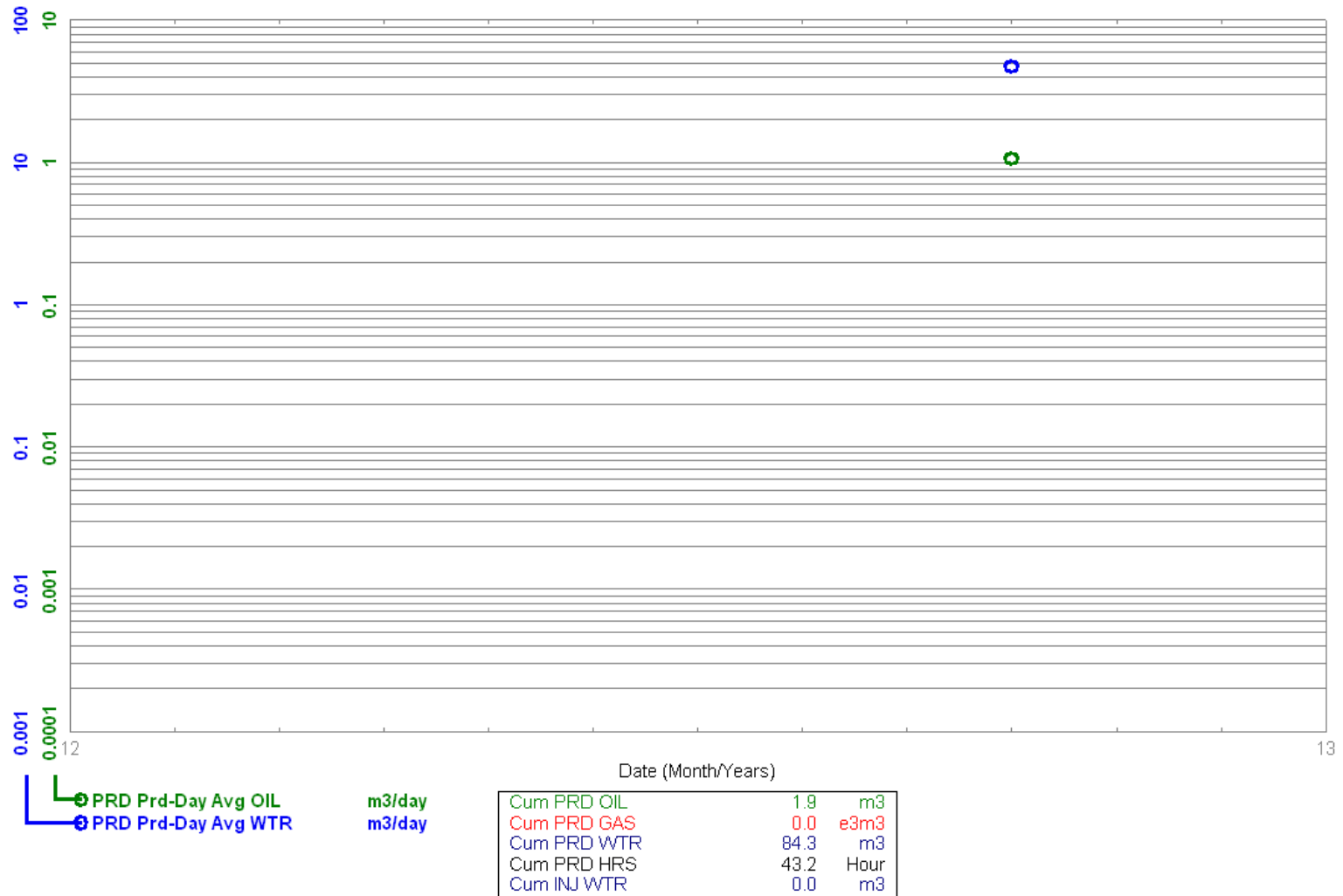
[No Data]
 [No Data]

Cum PRD OIL	0.0	m3
Cum PRD GAS	0.0	e3m3
Cum PRD WTR	0.0	m3
Cum PRD HRS	0.0	Hour
Cum INJ WTR	61.8	e3m3

Data As Of: 2012-10 (MB)
 From: 2012-10
 To: 2012-10

102/02-35-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

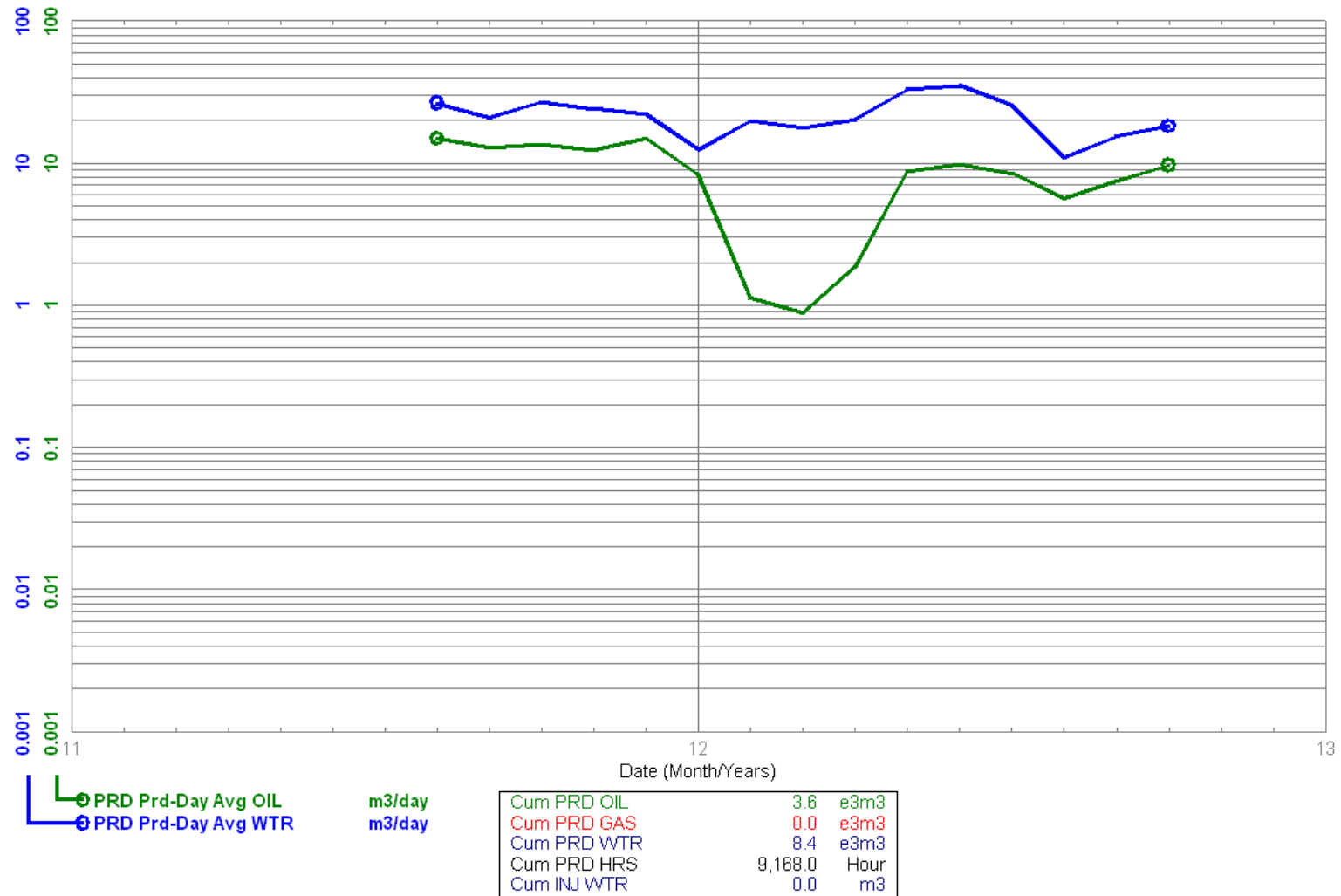
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2011-08
 To: 2012-10

102/03-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

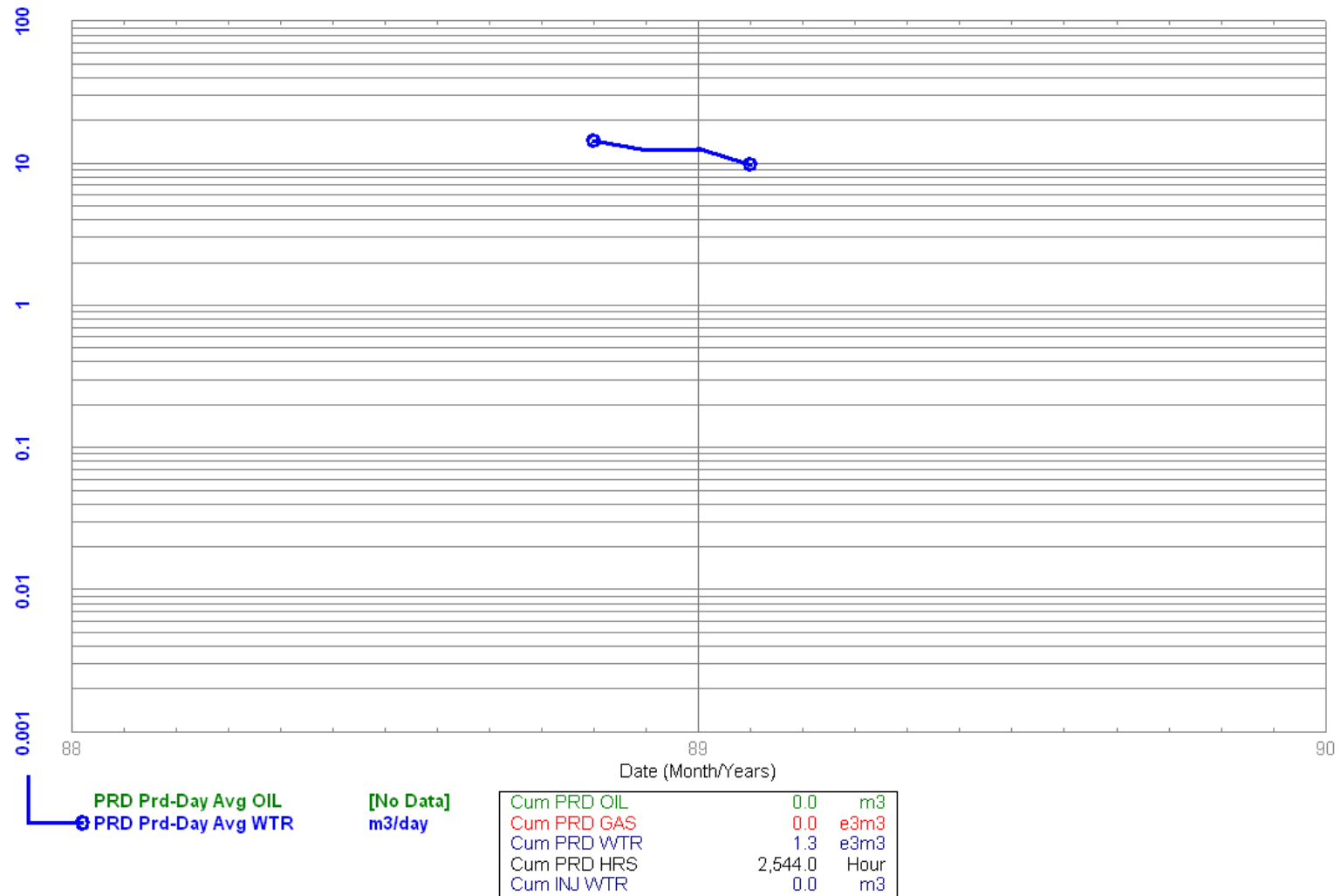
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1988-11
To: 1989-02

102/03-27-001-26W1/02
Waskada Unit No. 2 WIW
Abandoned Dry

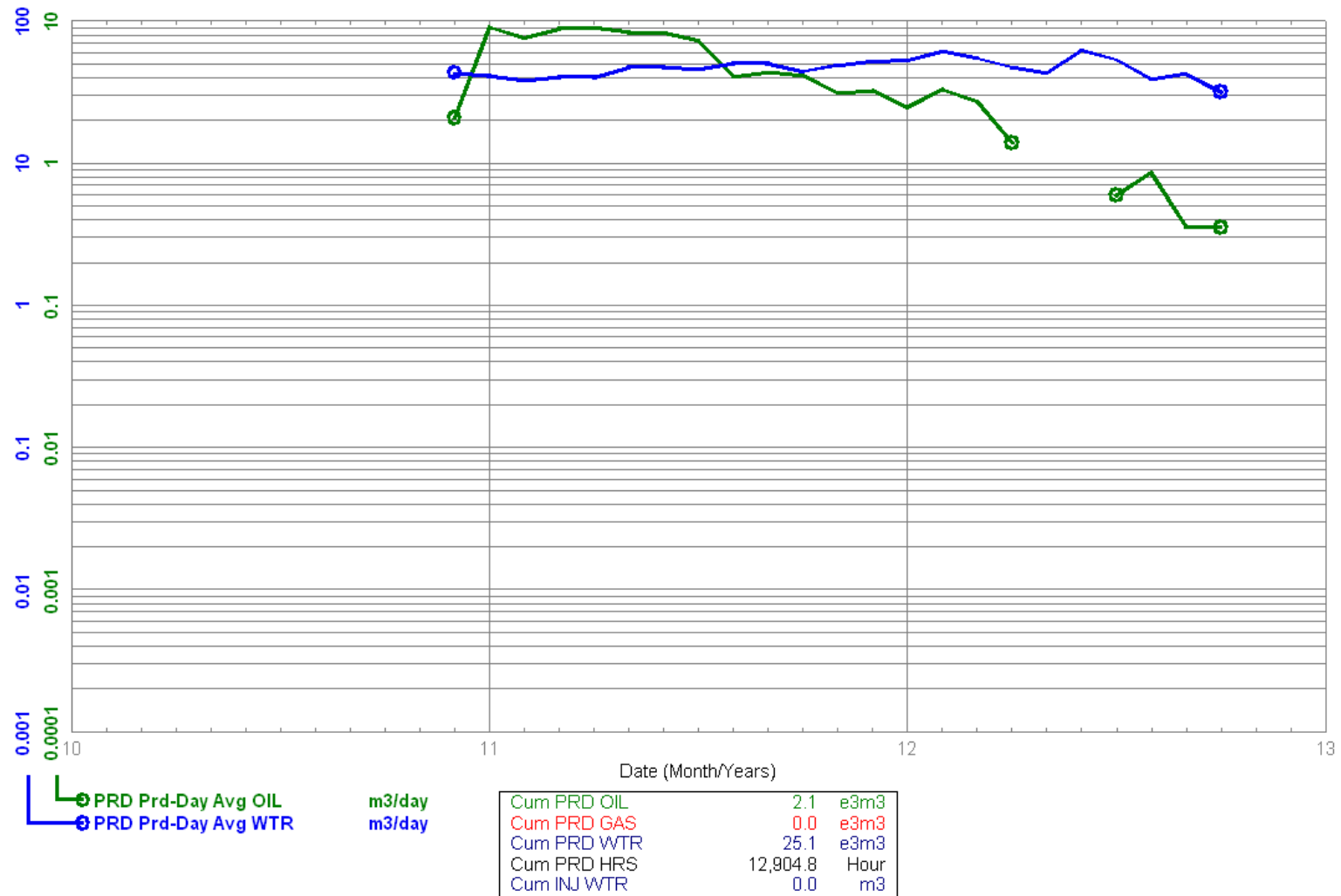
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2010-12
 To: 2012-10

102/04-27-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

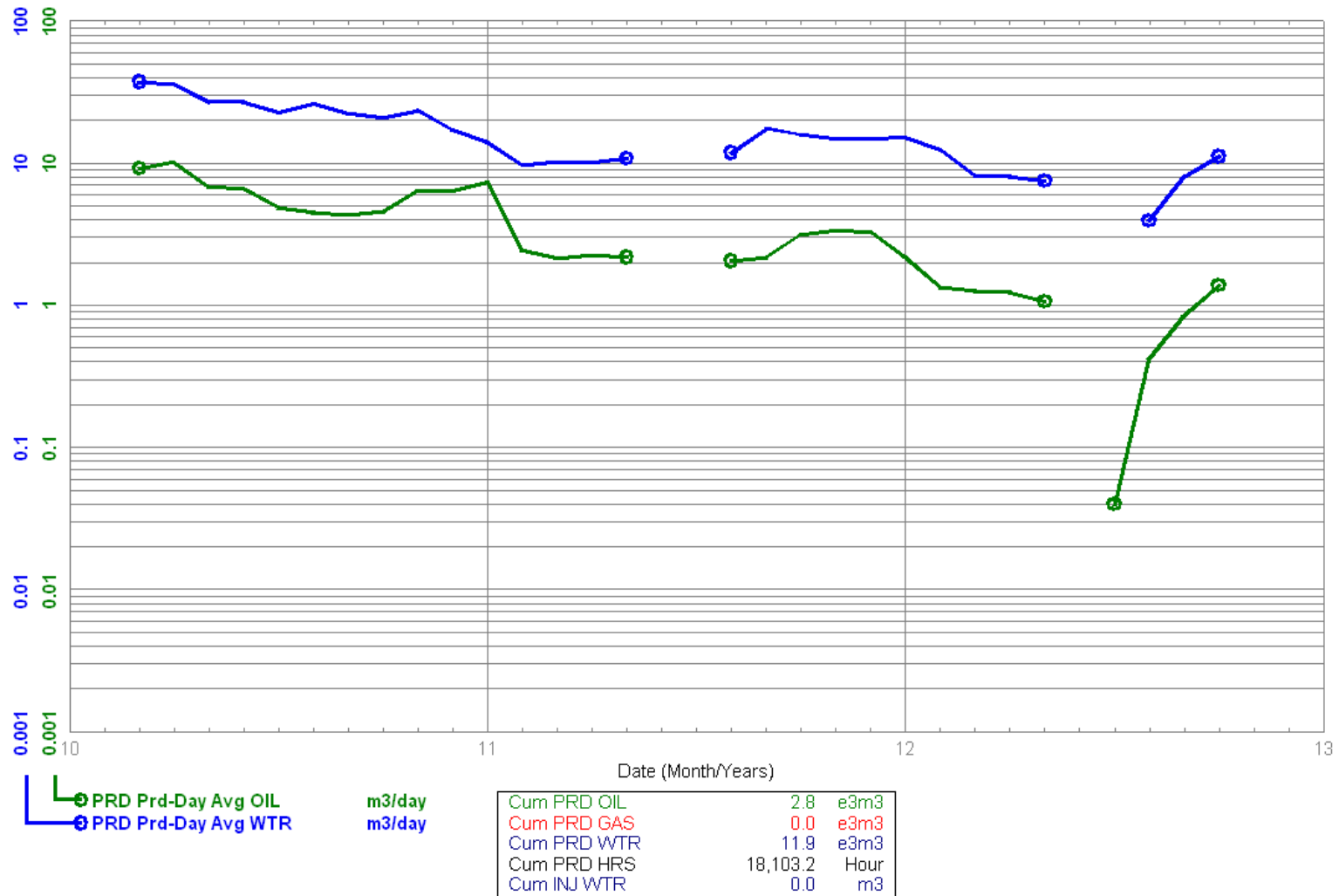
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2010-03
 To: 2012-10

102/05-27-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

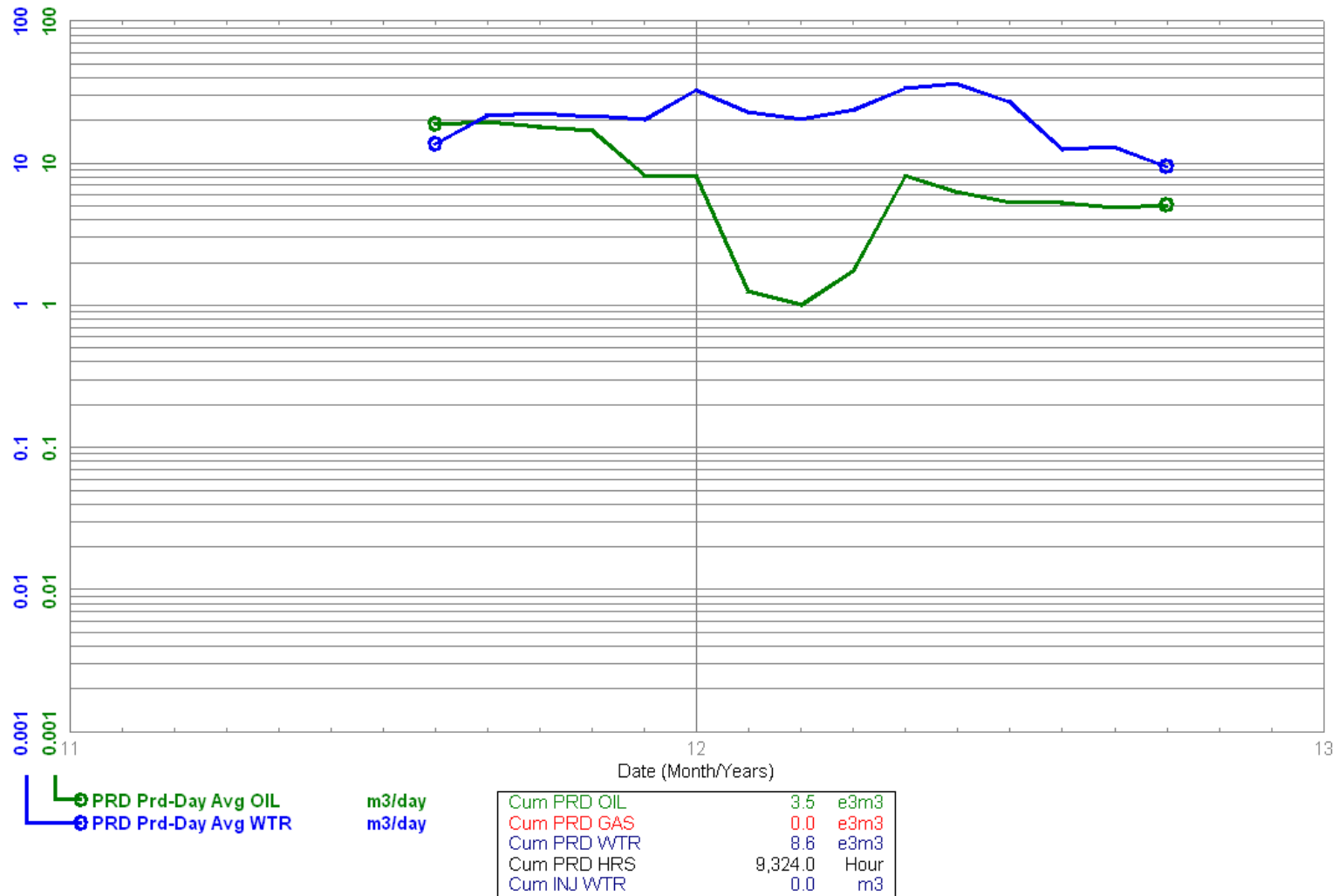
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2011-08
 To: 2012-10

102/06-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

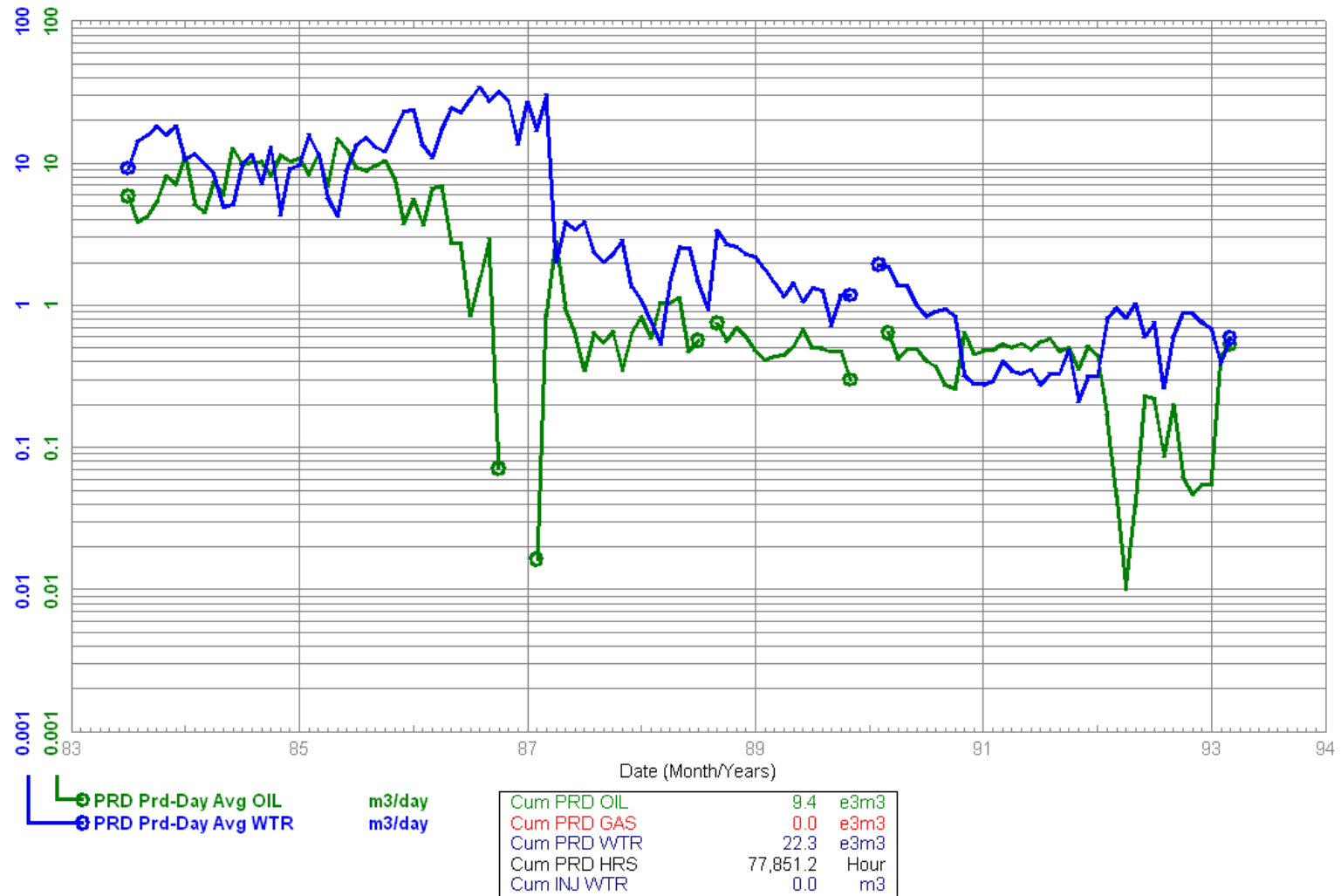
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-07
 To: 1993-03

102/06-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

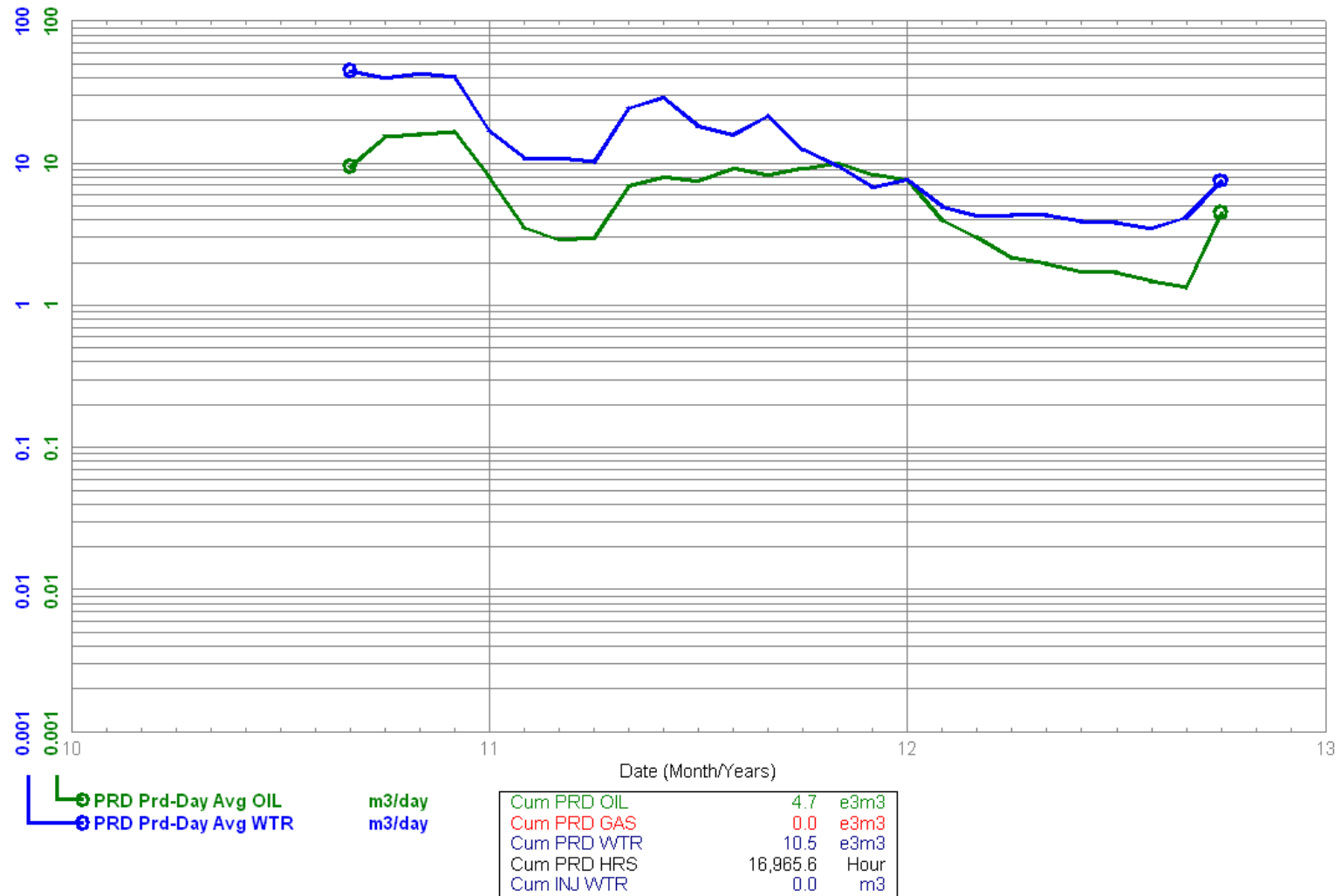
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2010-09
 To: 2012-10

102/08-27-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

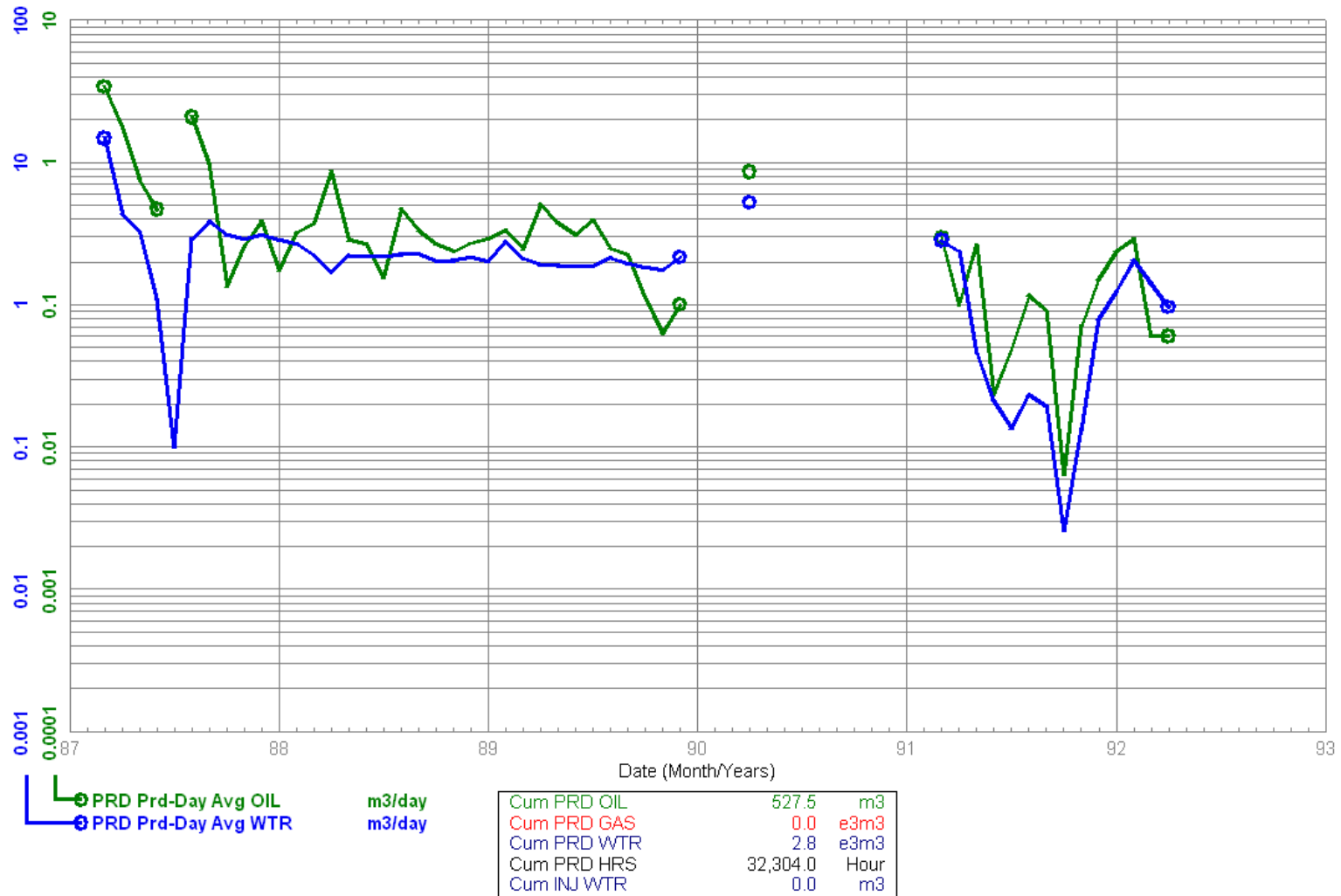
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1987-03
 To: 1992-04

102/09-27-001-26W1/02
 Waskada Unit No. 2
 Abandoned Producer

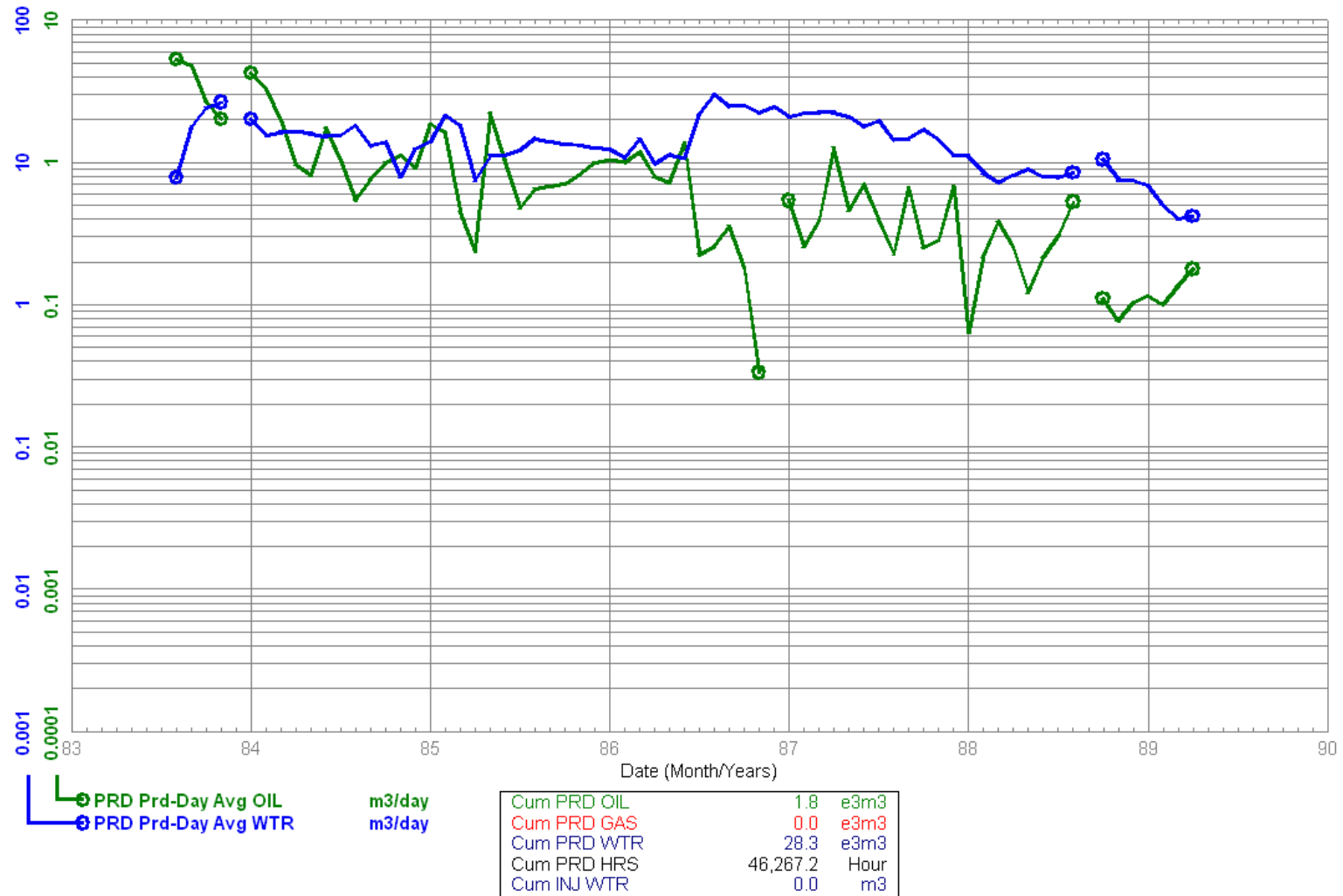
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-08
 To: 1989-04

102/11-27-001-26W1/00
 Omega Waskada
 Abandoned Producer

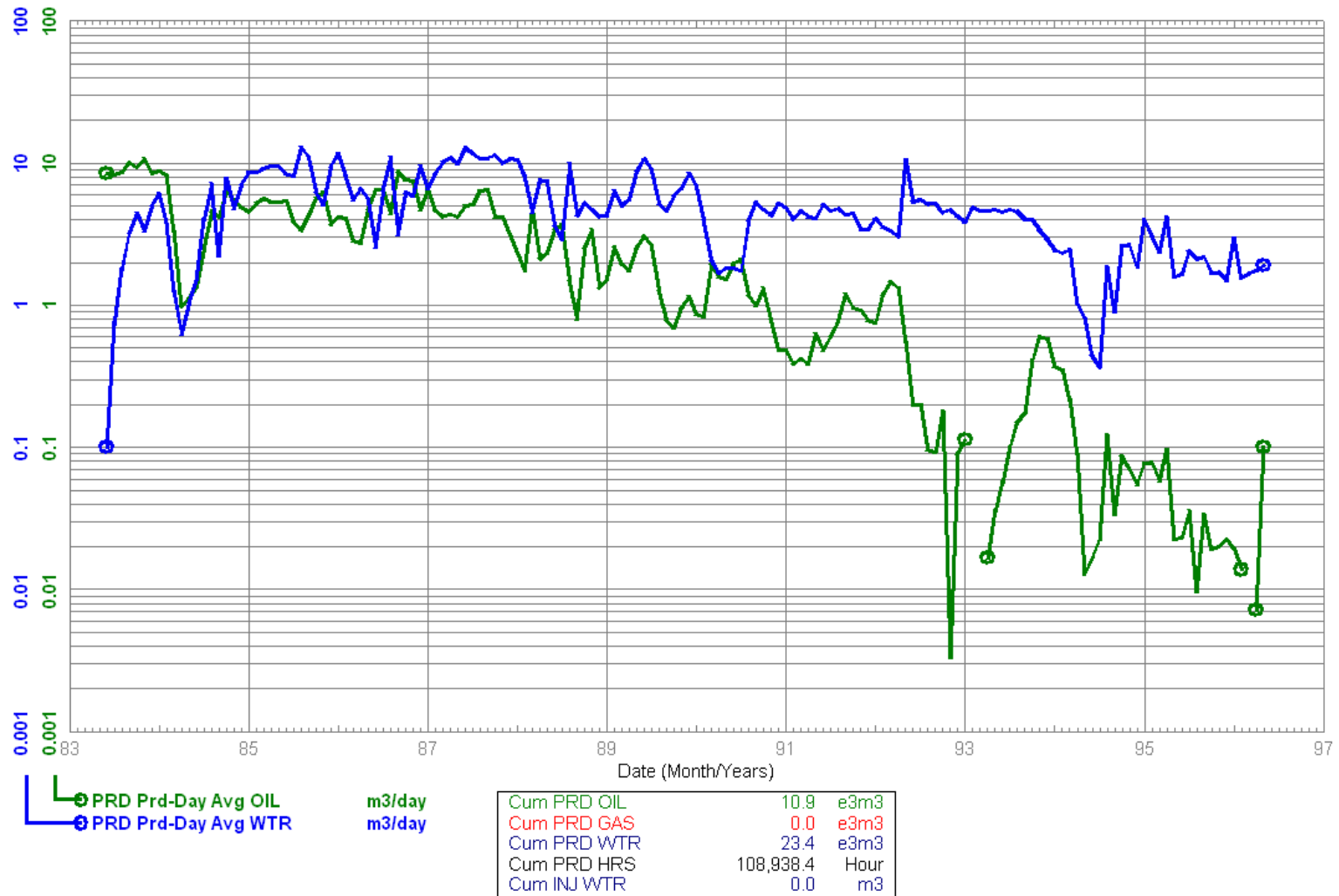
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-06
 To: 1996-05

102/12-26-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

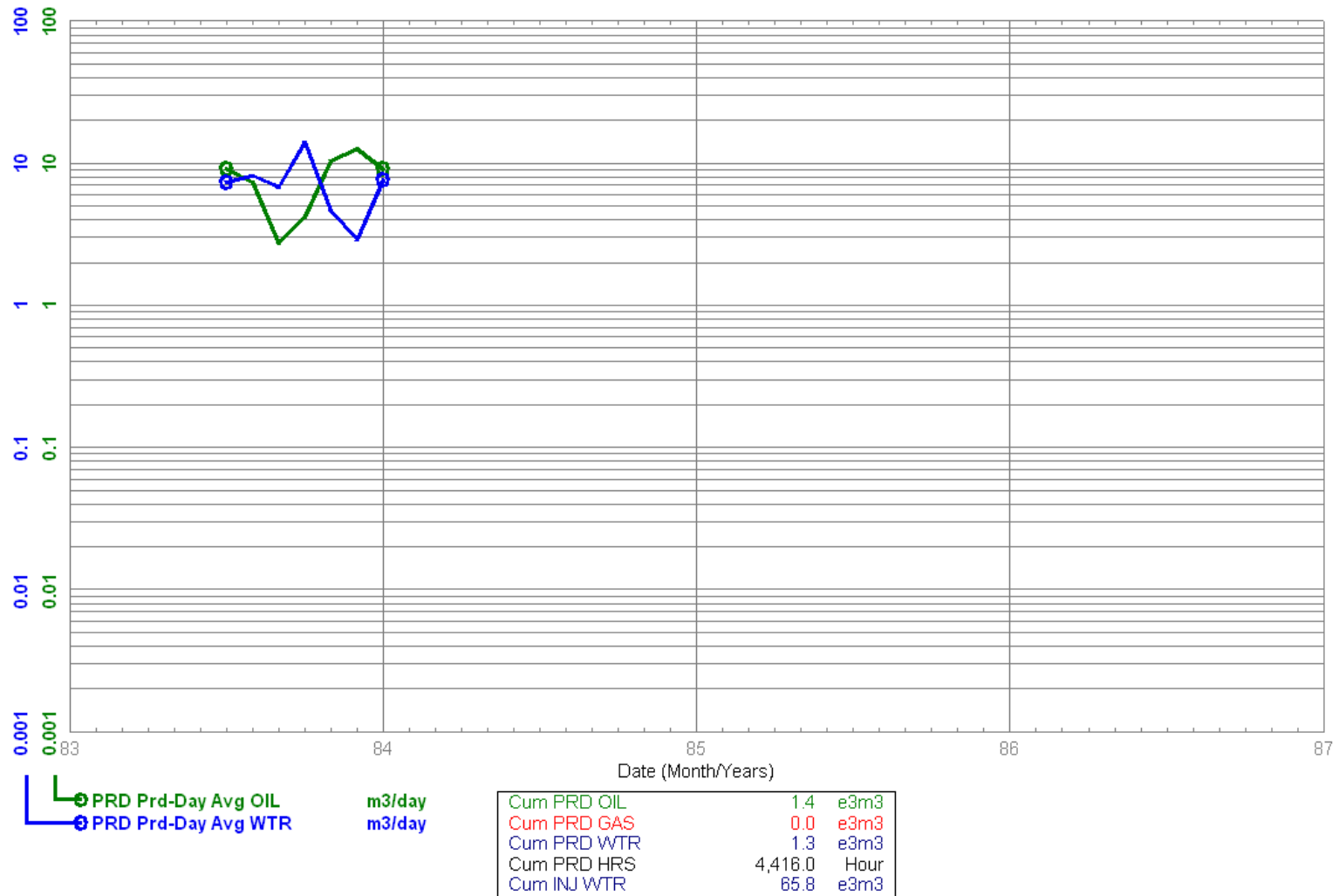
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-07
 To: 1984-01

102/13-27-001-26W1/00
 Waskada Unit No. 9
 Abandoned Water Inj Well

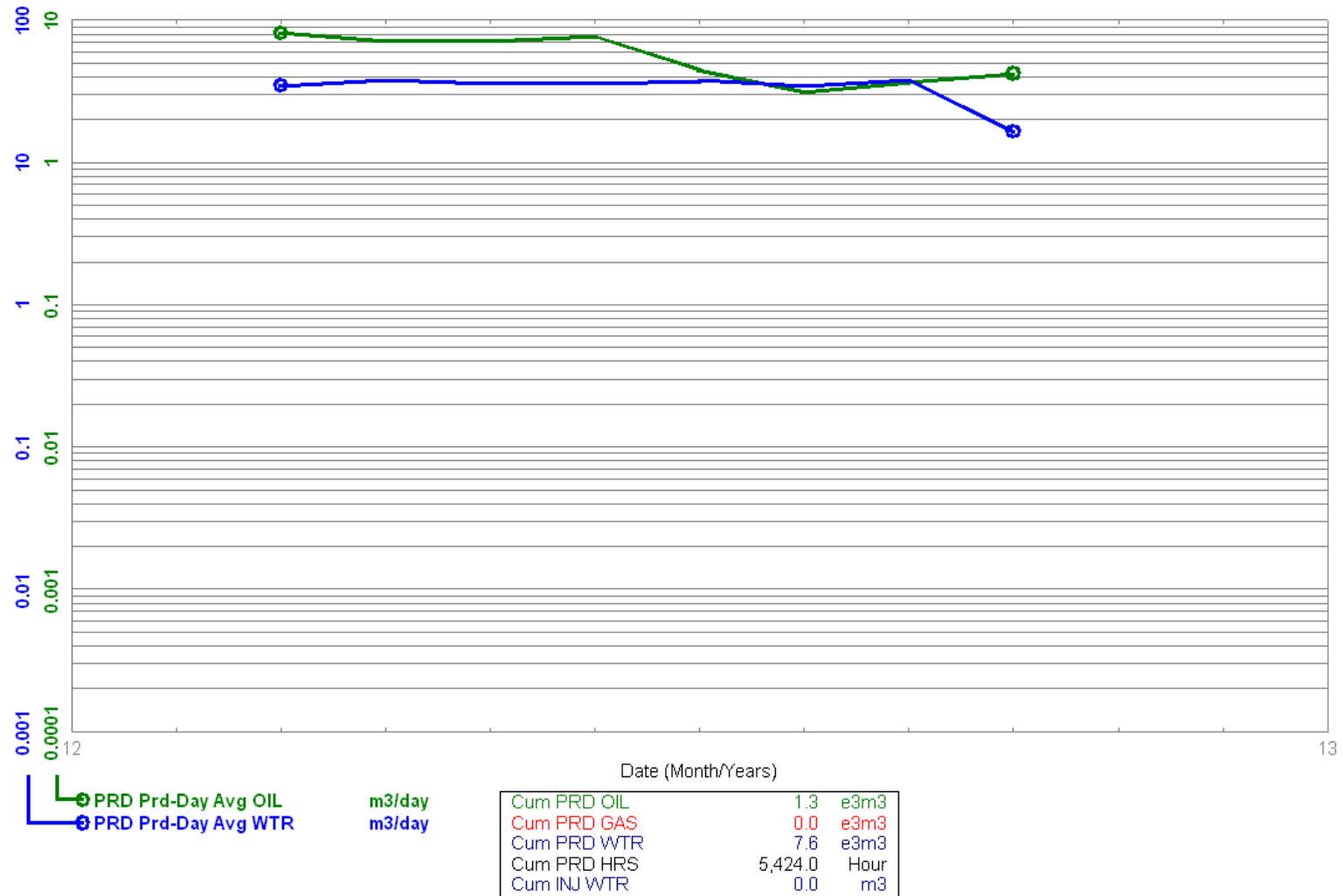
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

102/14-26-001-26W1/00
 Waskada Unit No. 2 HZNLT
 Capable Of Oil Prod

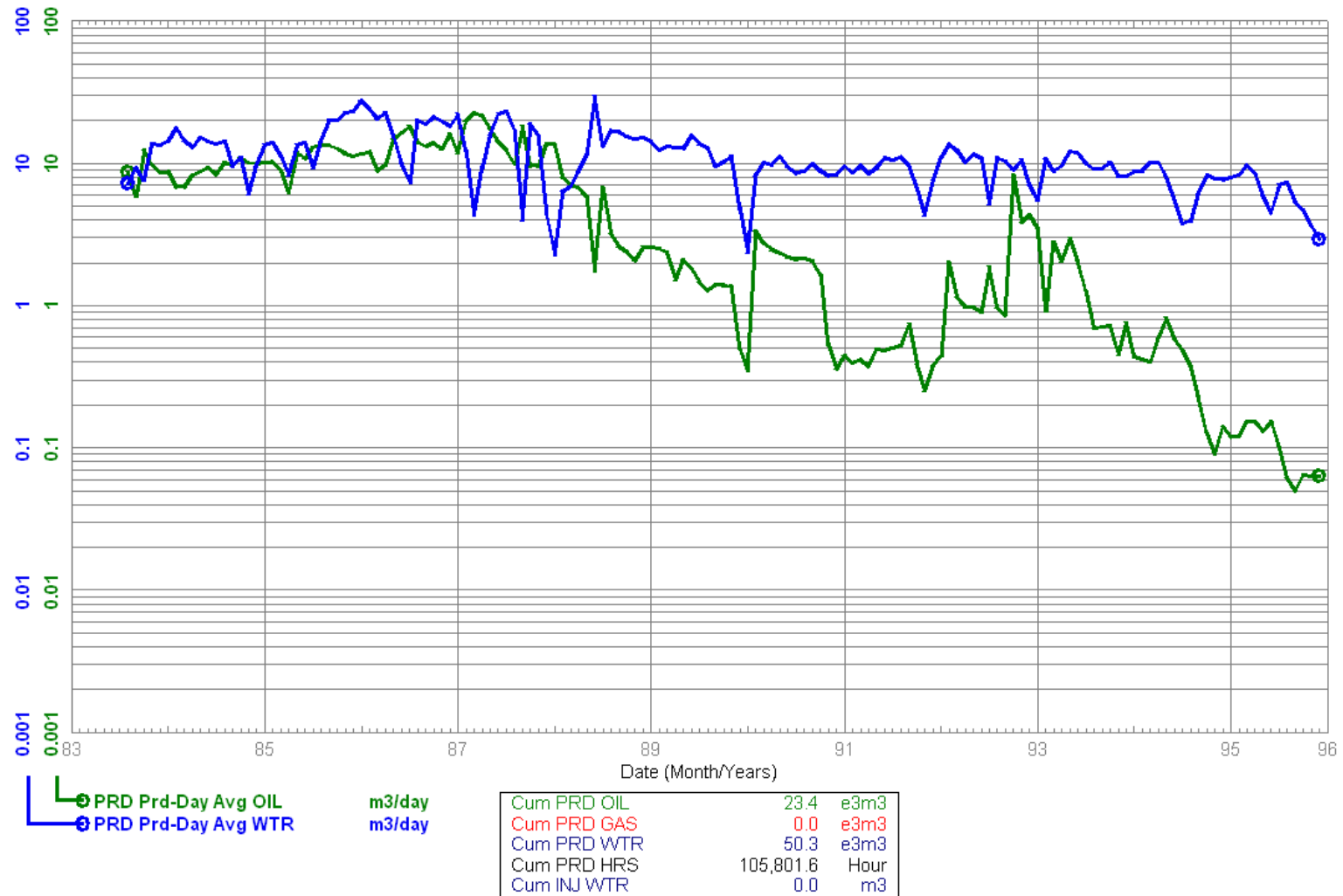
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-08
To: 1995-12

102/14-27-001-26W1/00
Waskada Unit No. 2
Abandoned Producer

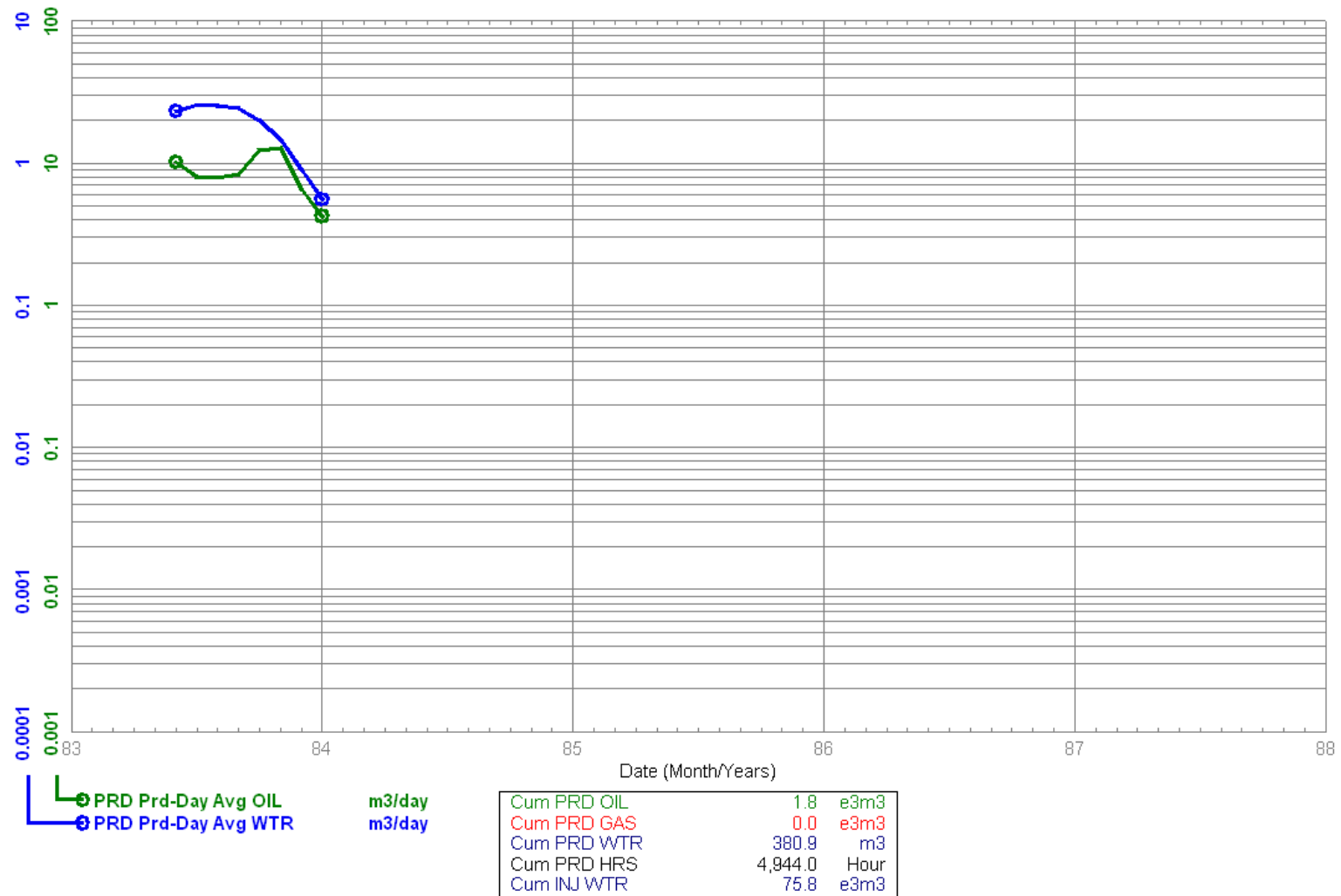
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
From: 1983-06
To: 1984-01

102/15-27-001-26W1/00
Omega Waskada
Abandoned Water Inj Well

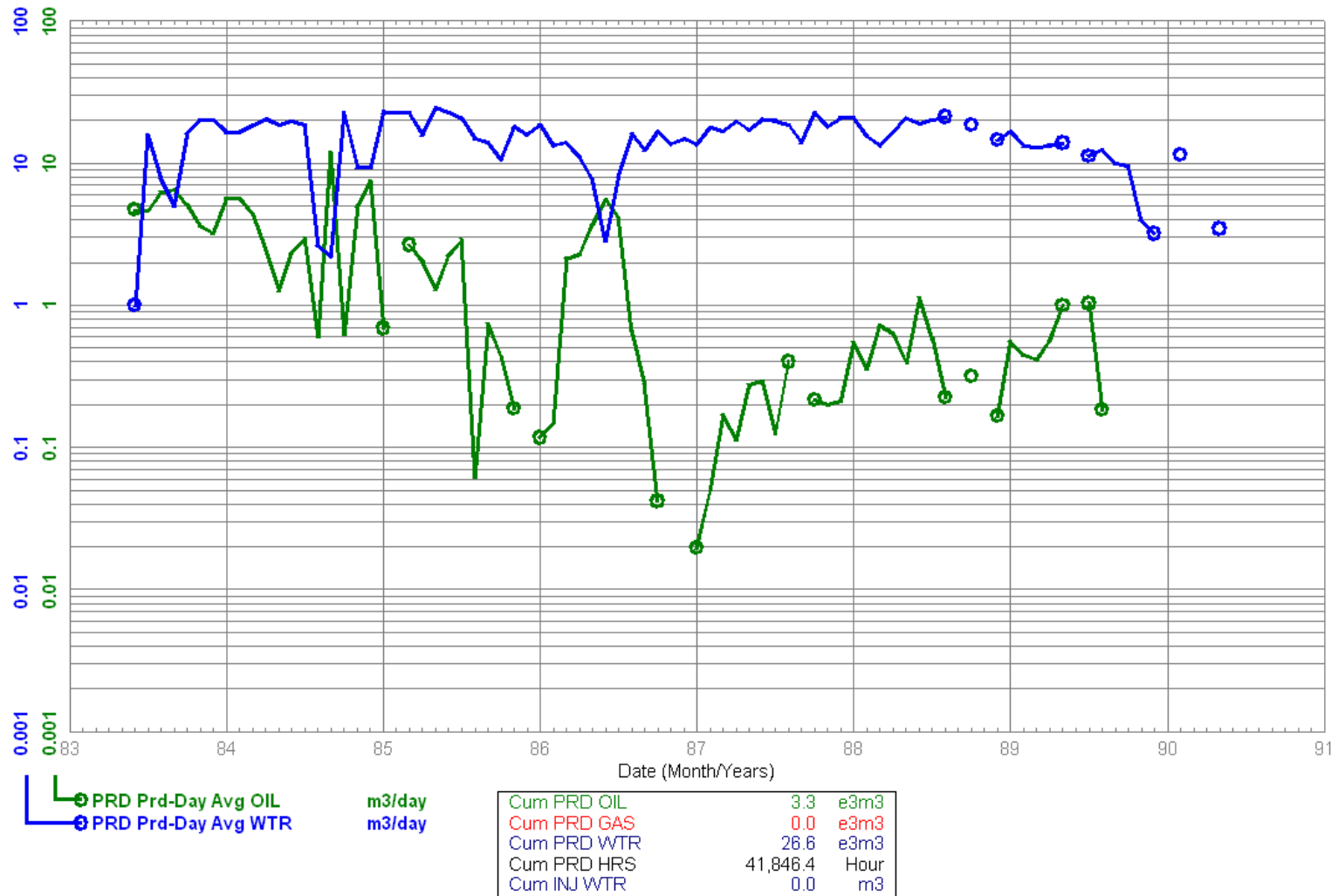
Field: WASKADA (03)
Pool: LOWER AMARANTH A (29A)
Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 1983-06
 To: 1990-05

102/16-27-001-26W1/00
 Waskada Unit No. 2
 Abandoned Producer

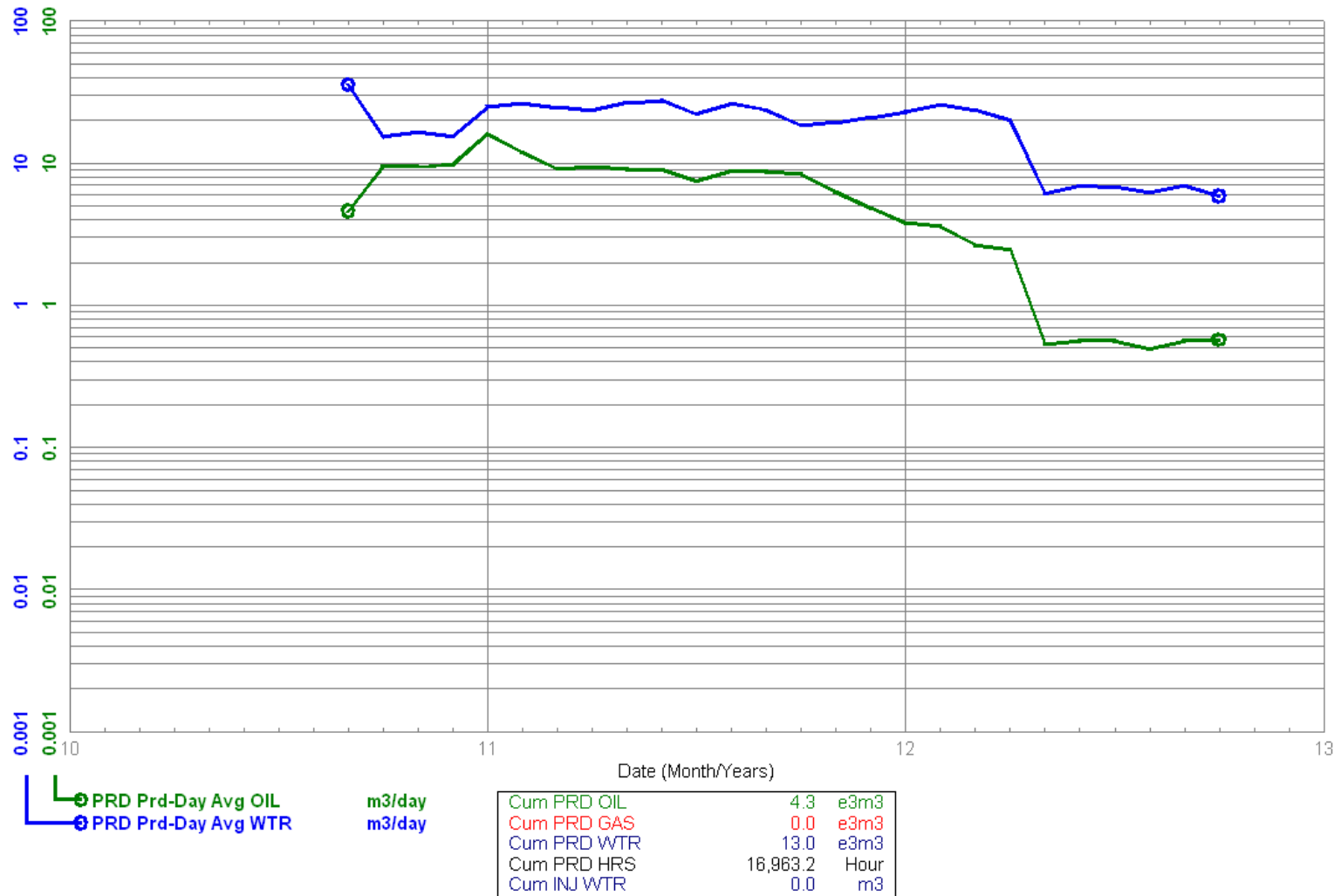
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2010-09
 To: 2012-10

103/01-27-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

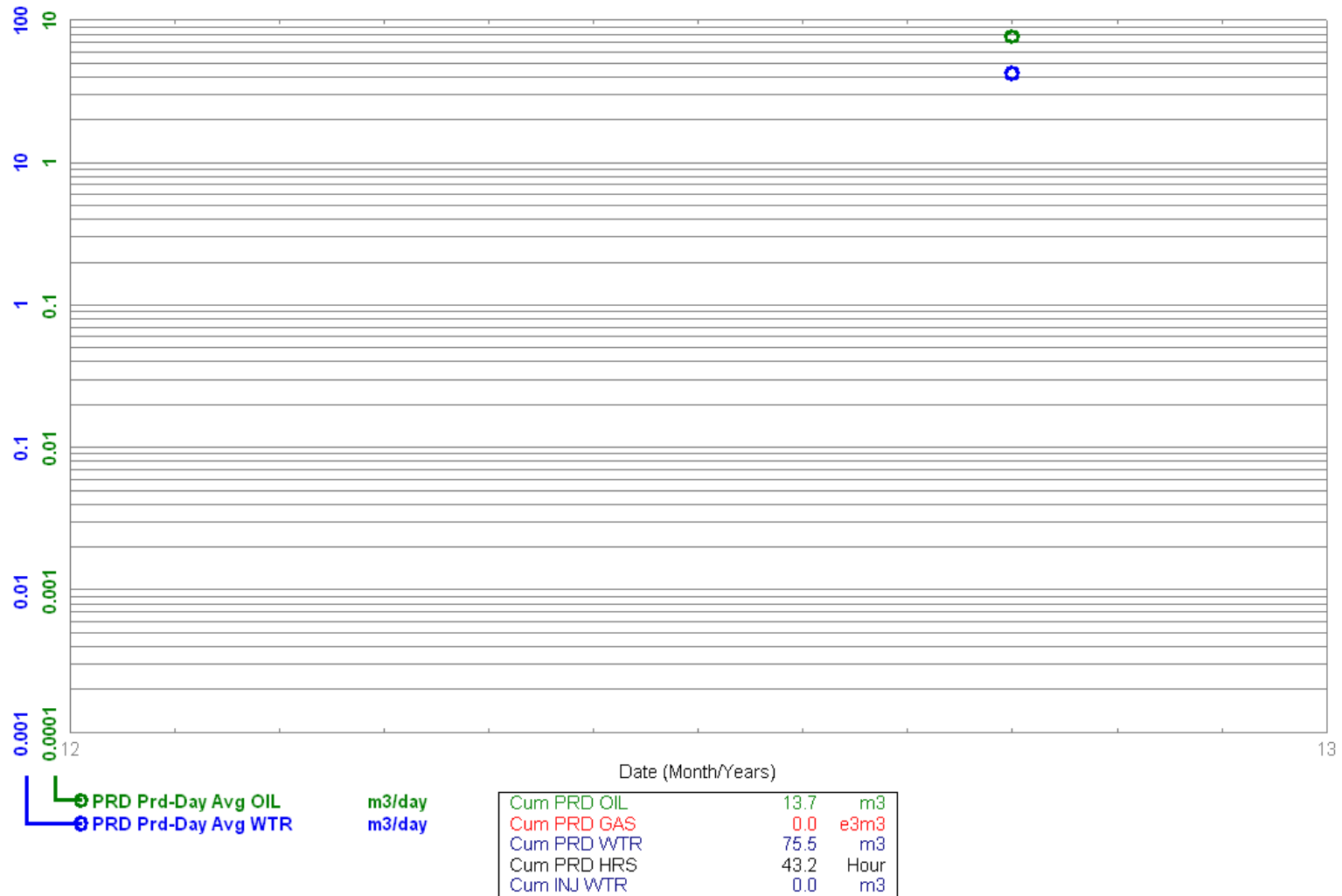
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 3



Data As Of: 2012-10 (MB)
 From: 2012-10
 To: 2012-10

103/02-35-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

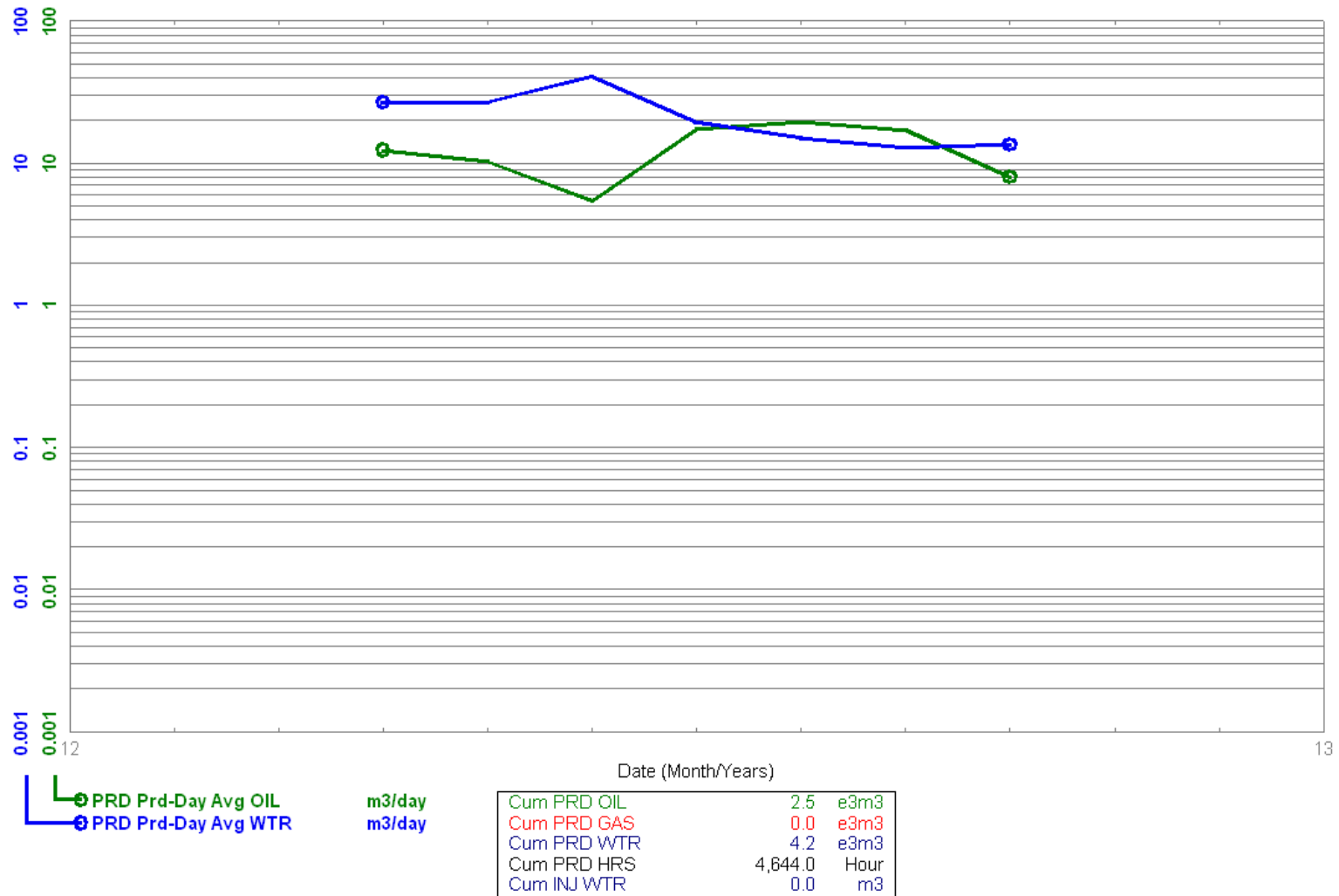
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-04
 To: 2012-10

103/03-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

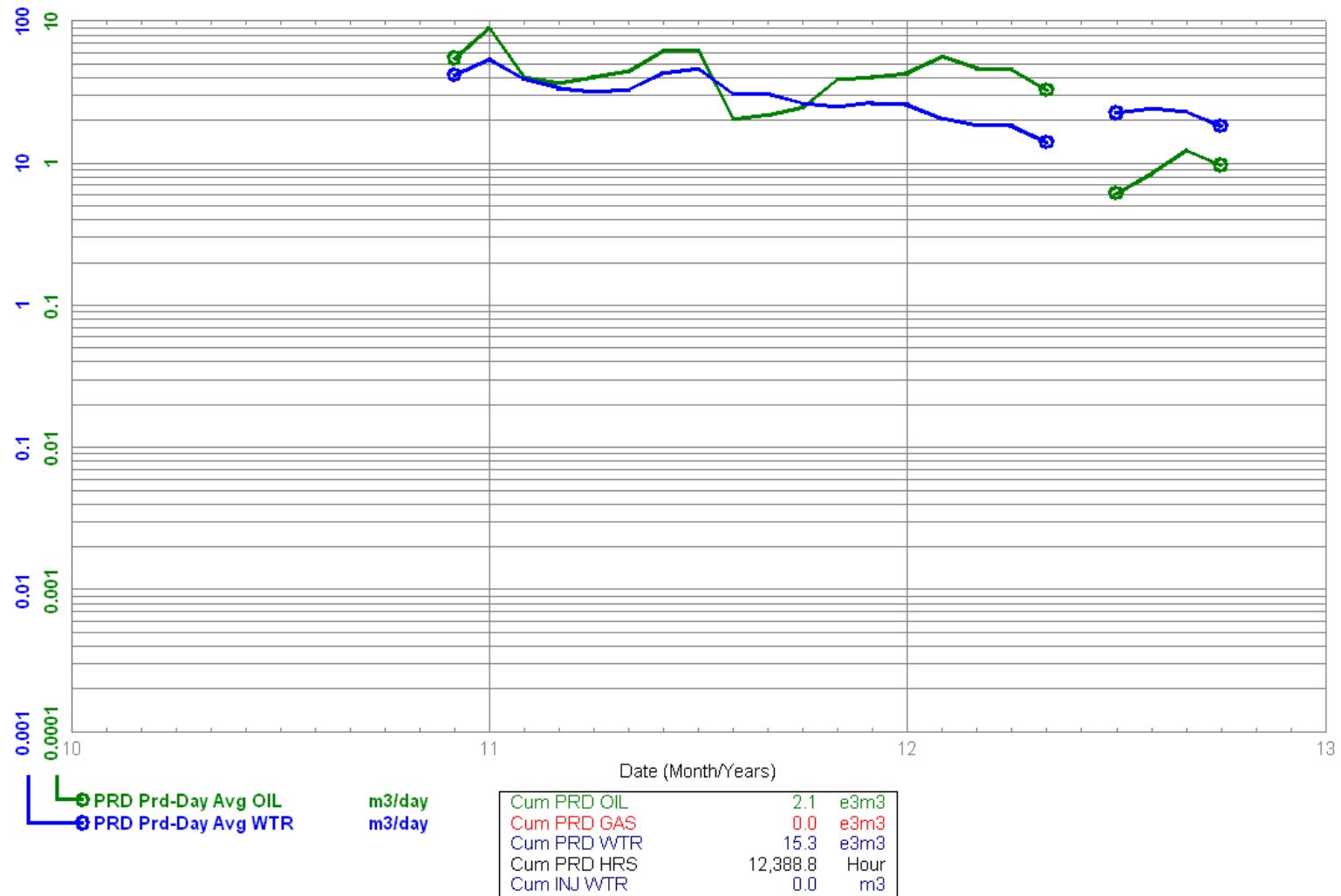
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2010-12
 To: 2012-10

103/05-27-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

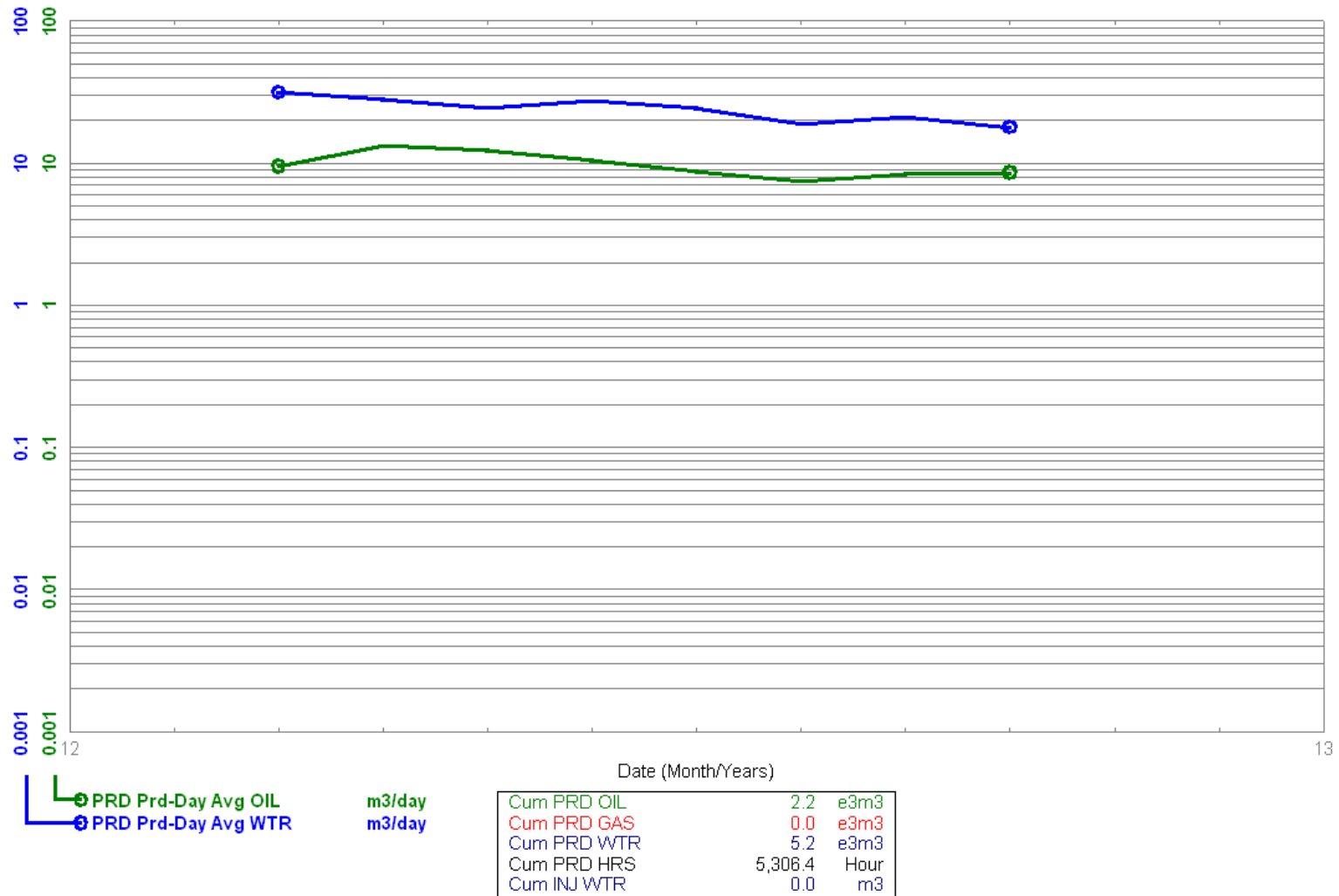
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

103/11-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

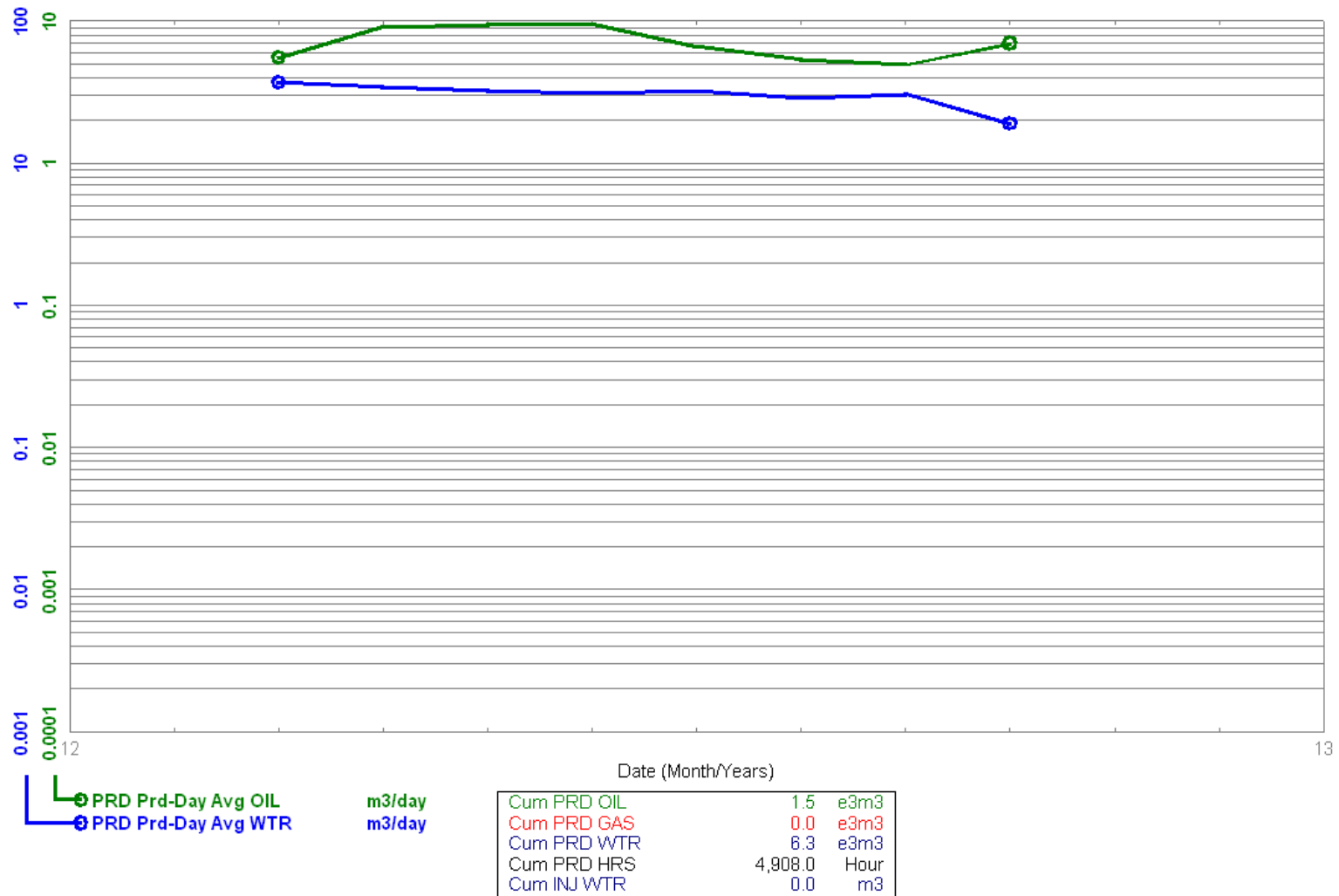
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

103/14-26-001-26W1/00
 Waskada Unit No. 2 HZNLT
 Capable Of Oil Prod

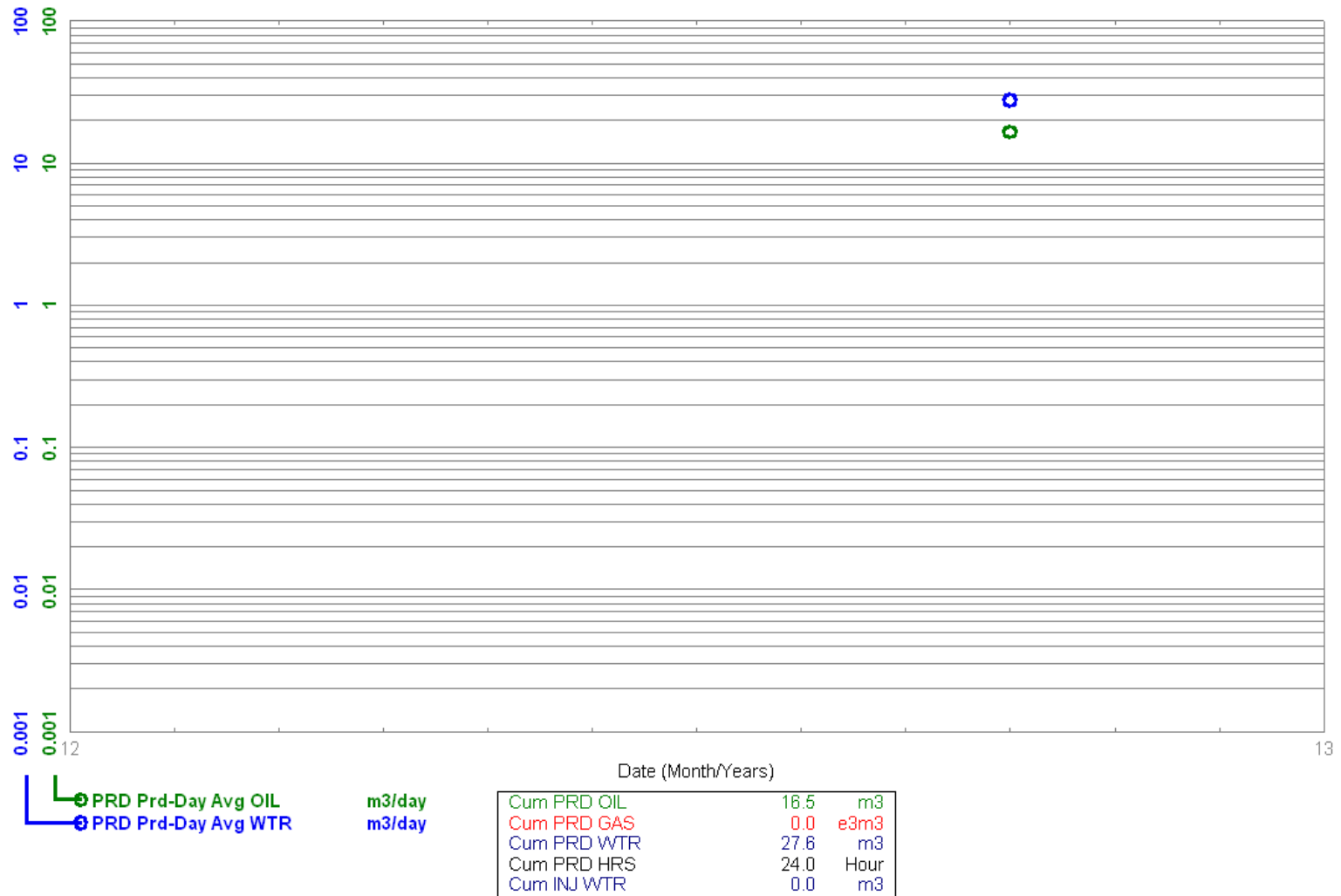
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-10
 To: 2012-10

104/02-35-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

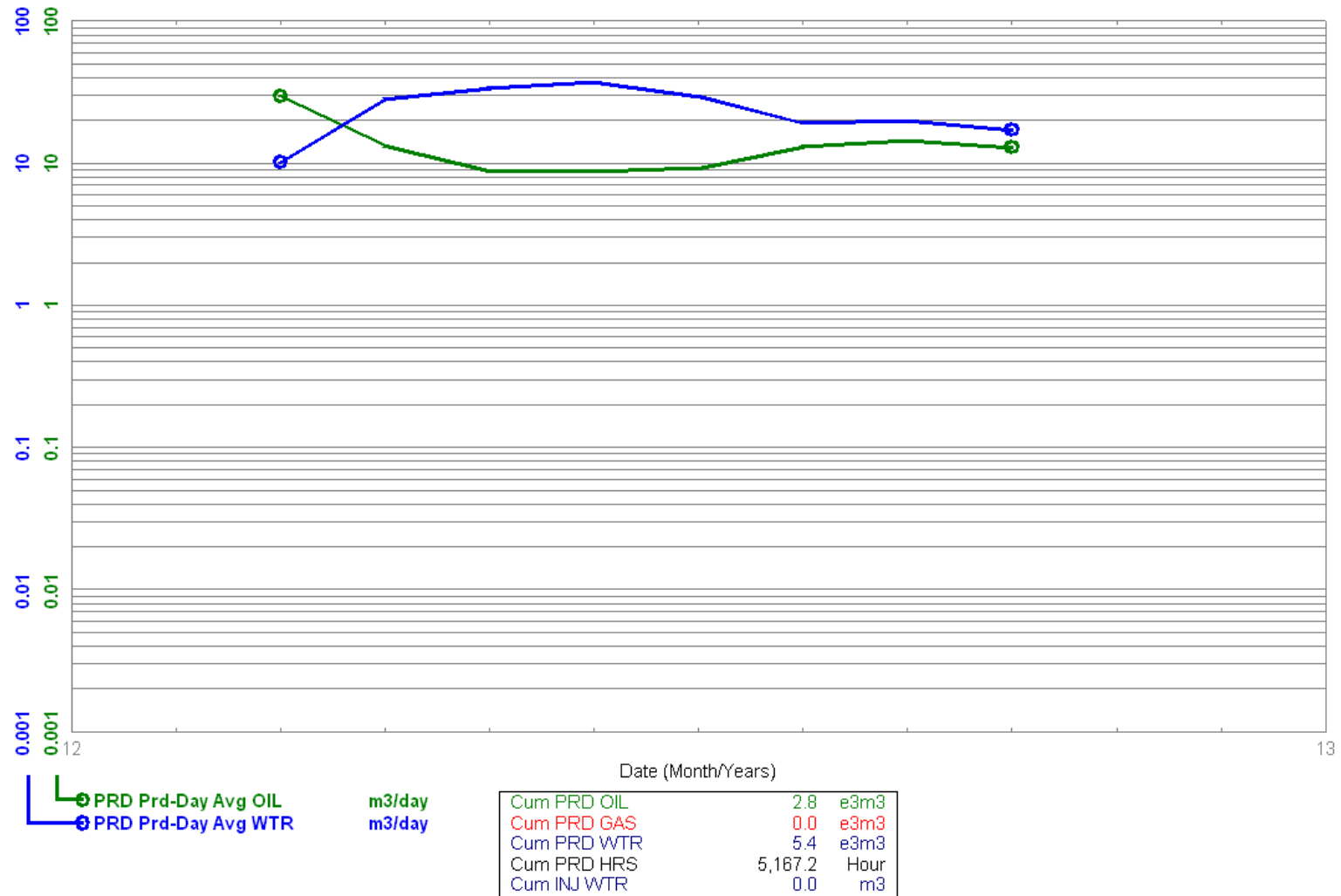
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

104/06-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

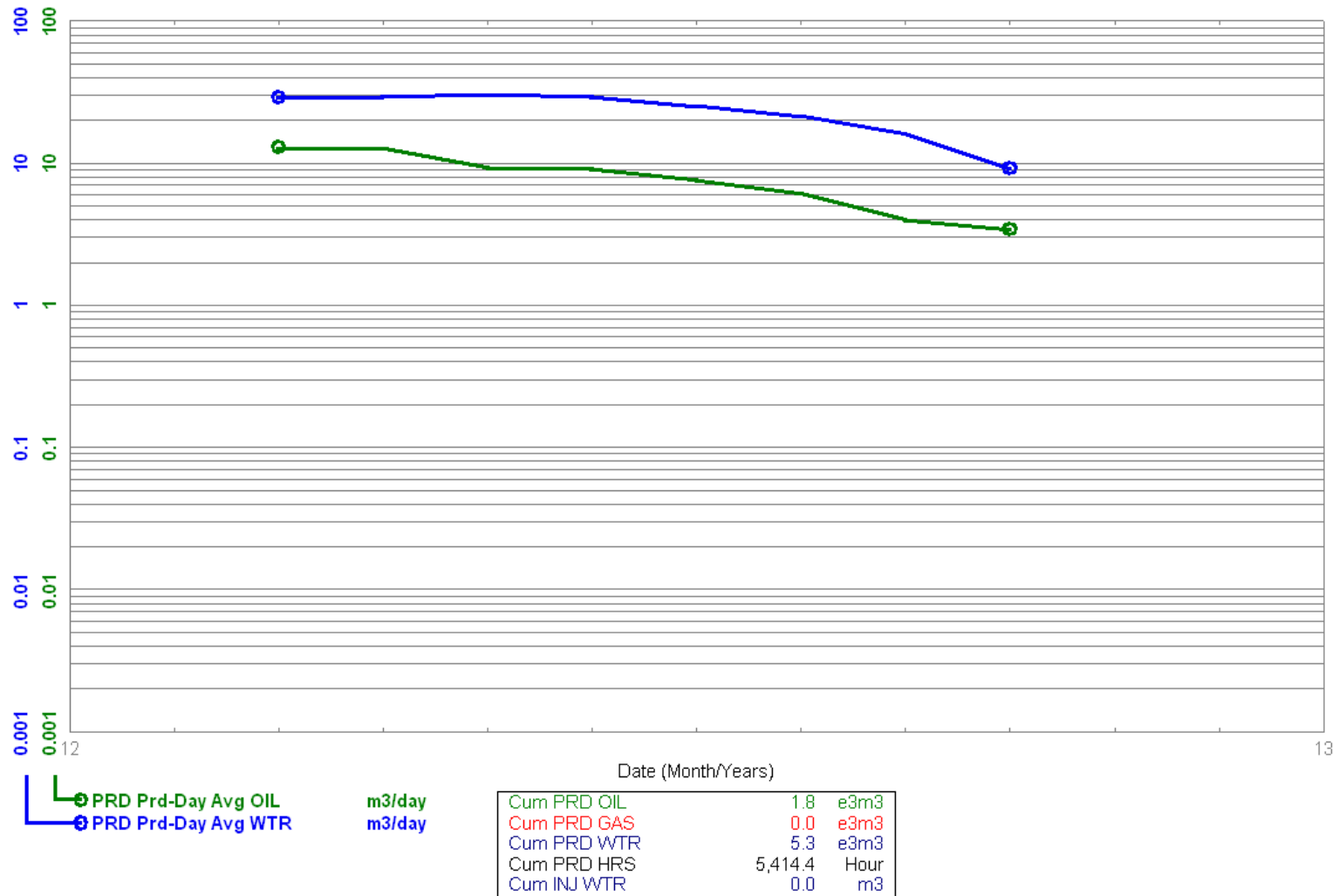
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

104/11-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

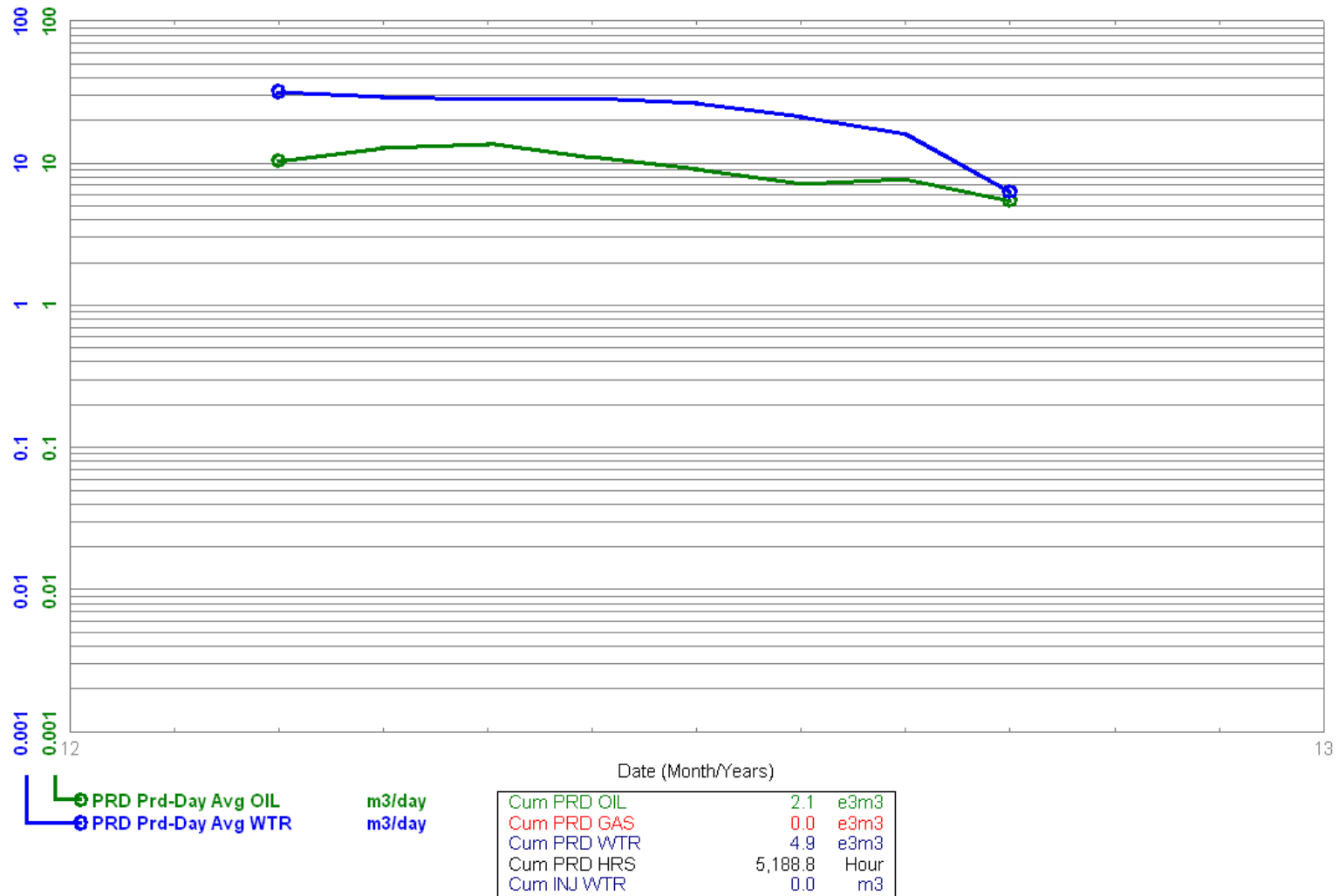
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

104/14-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

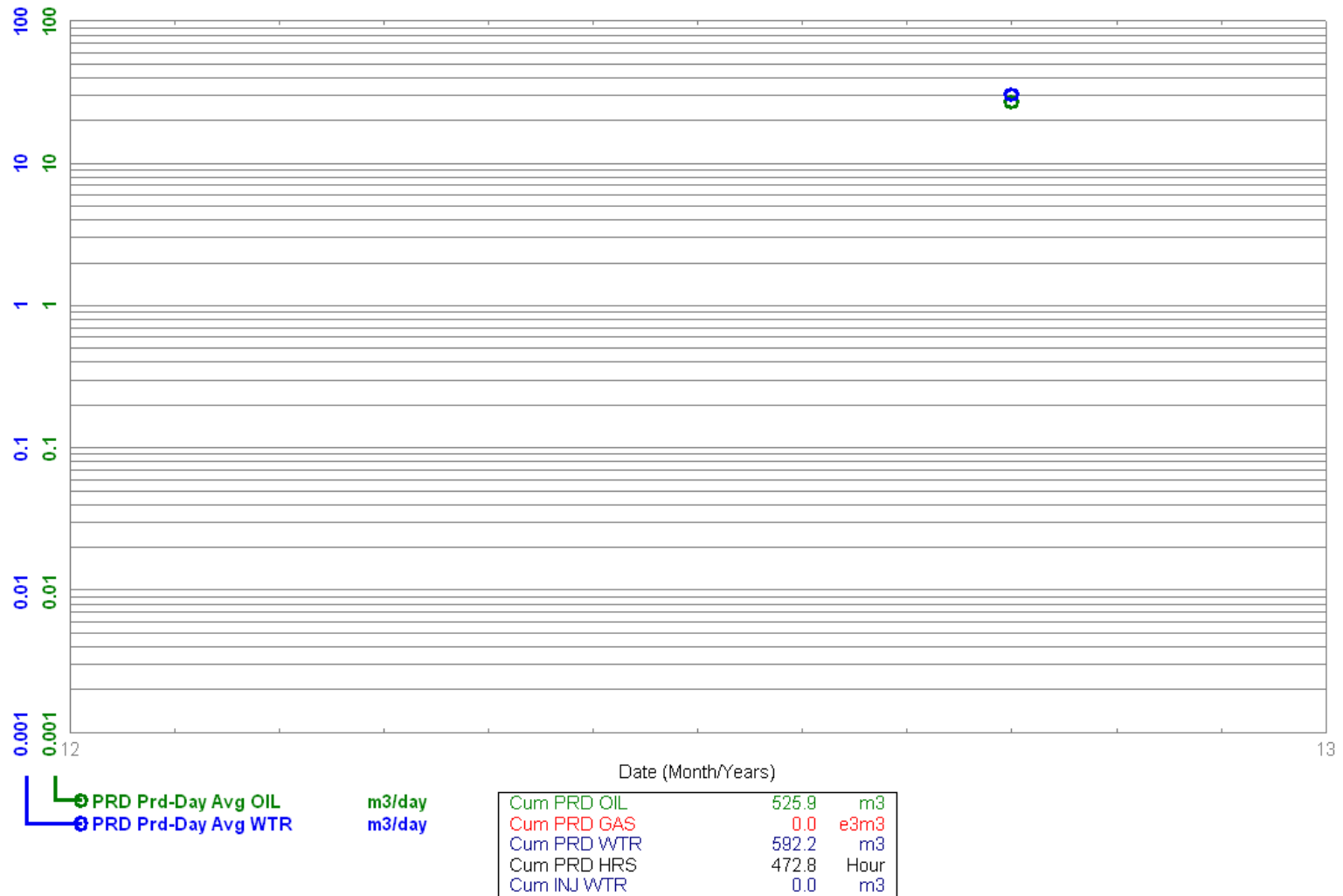
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-10
 To: 2012-10

105/02-35-001-26W1/00
 Waskada Unit No. 2 HZNLT
 Capable Of Oil Prod

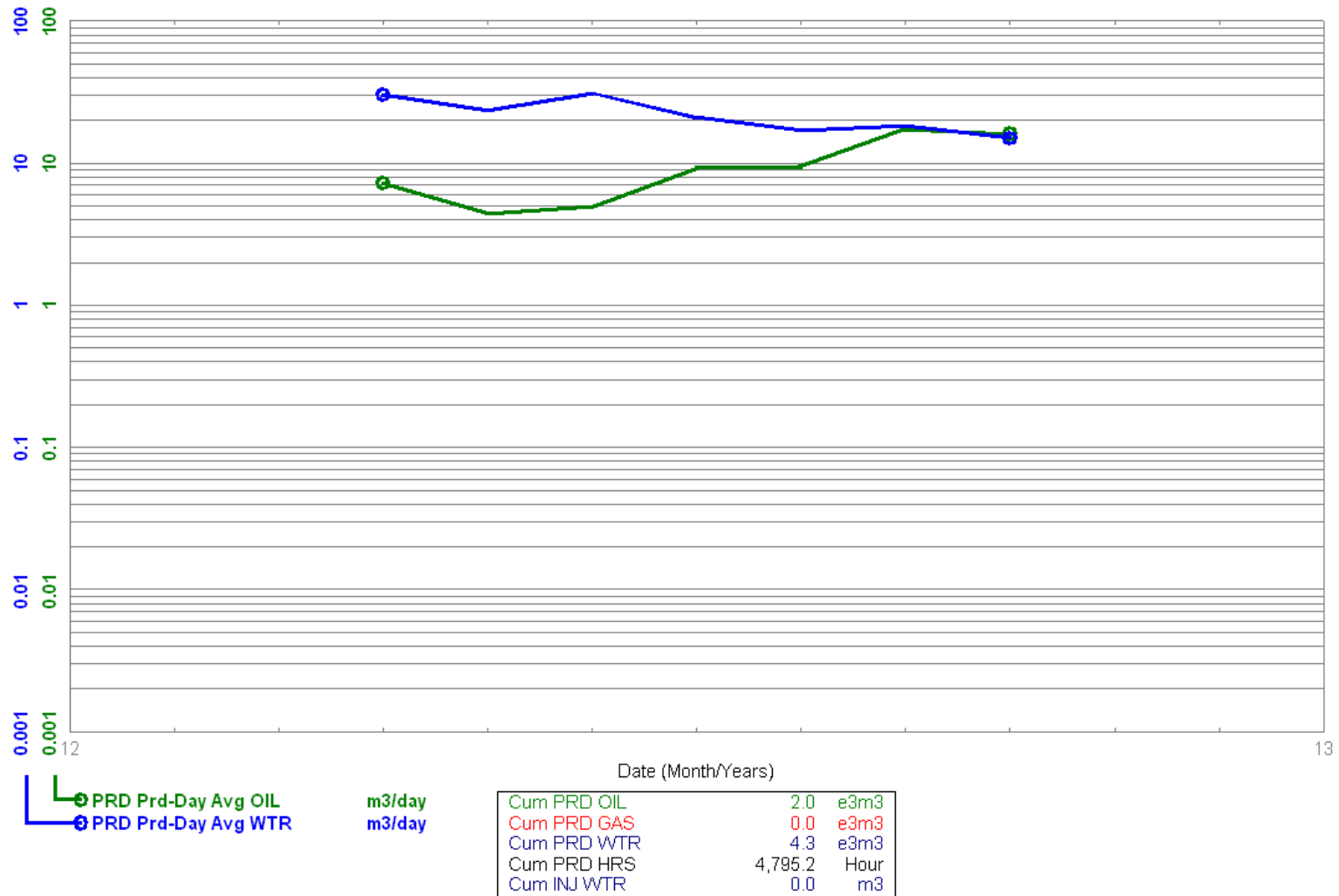
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-04
 To: 2012-10

105/06-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

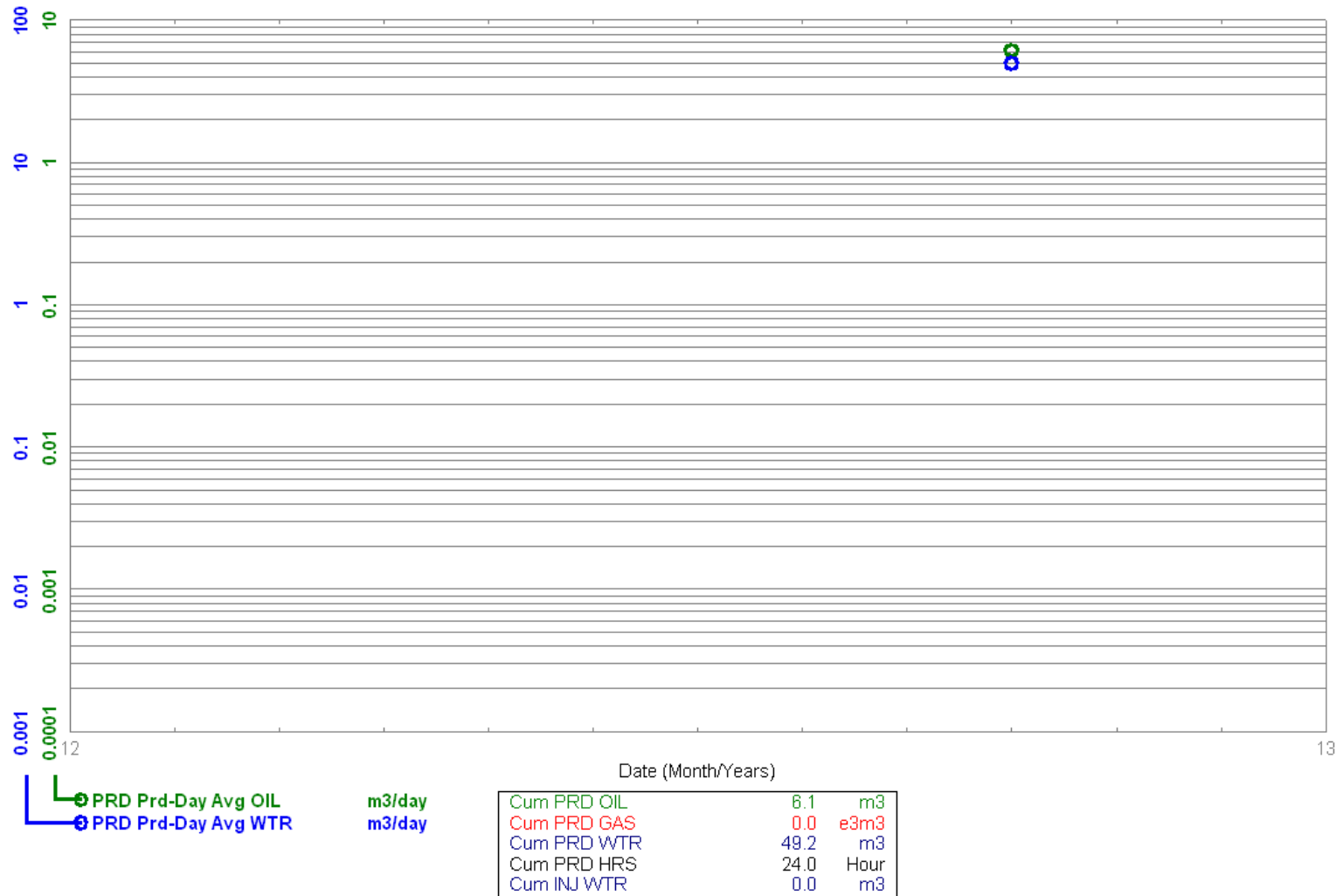
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-10
 To: 2012-10

105/07-35-001-26W1/00
 Penn West Waskada HZNTL
 Capable Of Oil Prod

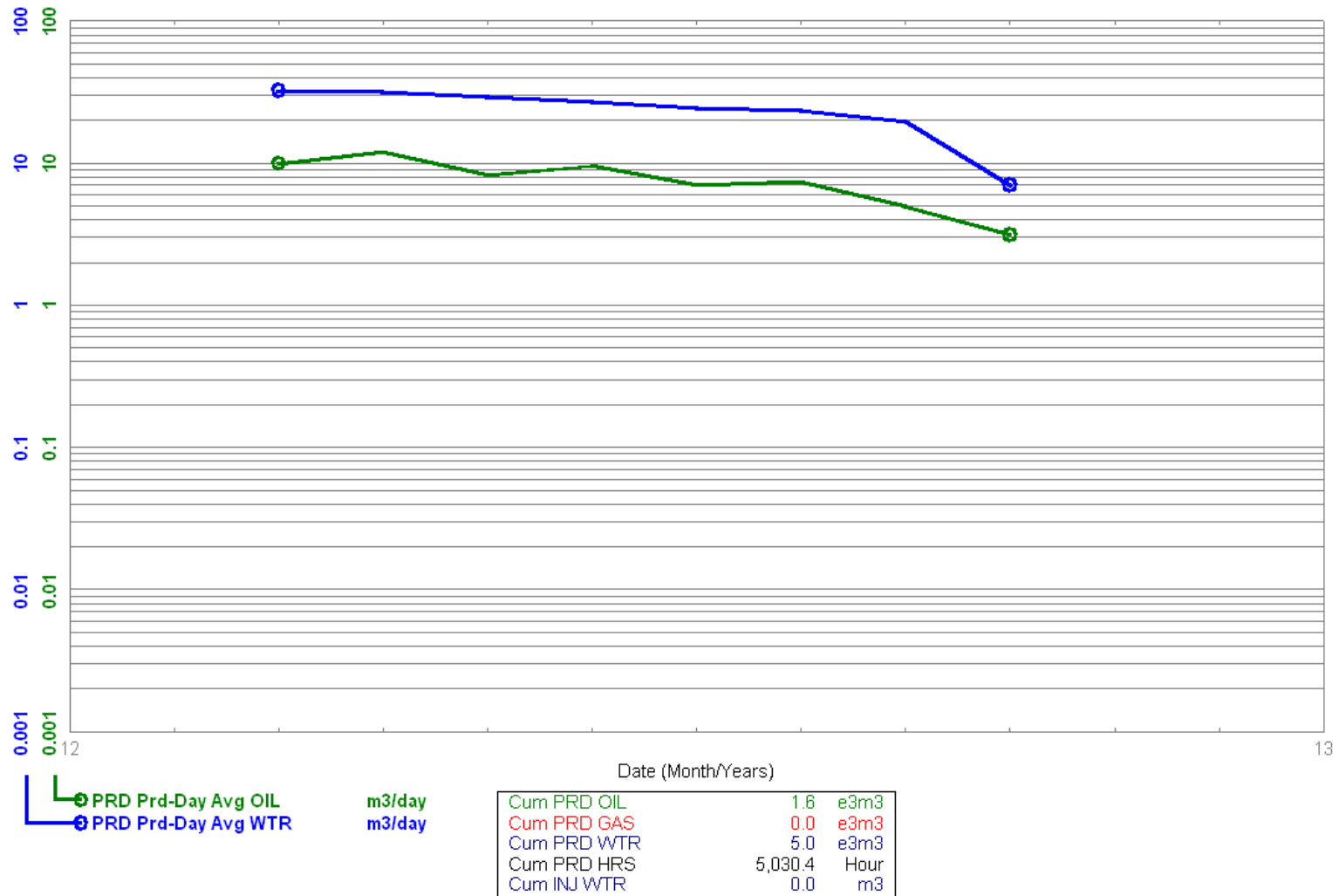
Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit:



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

105/11-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2



Data As Of: 2012-10 (MB)
 From: 2012-03
 To: 2012-10

105/14-26-001-26W1/00
 Waskada Unit No. 2 HZNTL
 Capable Of Oil Prod

Field: WASKADA (03)
 Pool: LOWER AMARANTH A (29A)
 Unit: WASKADA UNIT NO. 2

