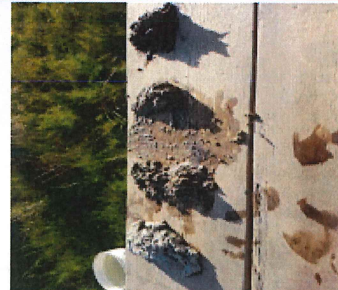
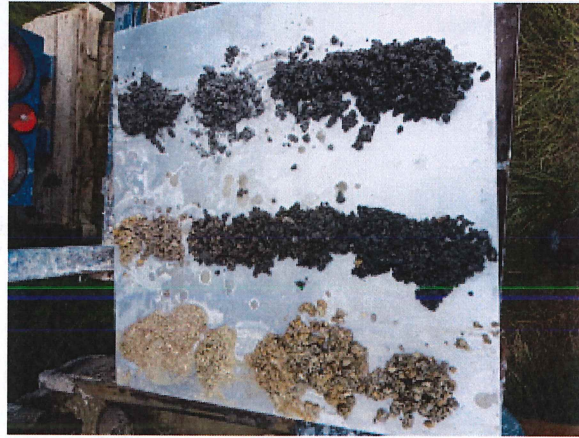




Lower Niobrara Natural Resources District
410 Walnut Street, P.O. Box 350
Butte, NE 68722-0350
Phone: (402) 775-2343
Fax: (402) 775-2334

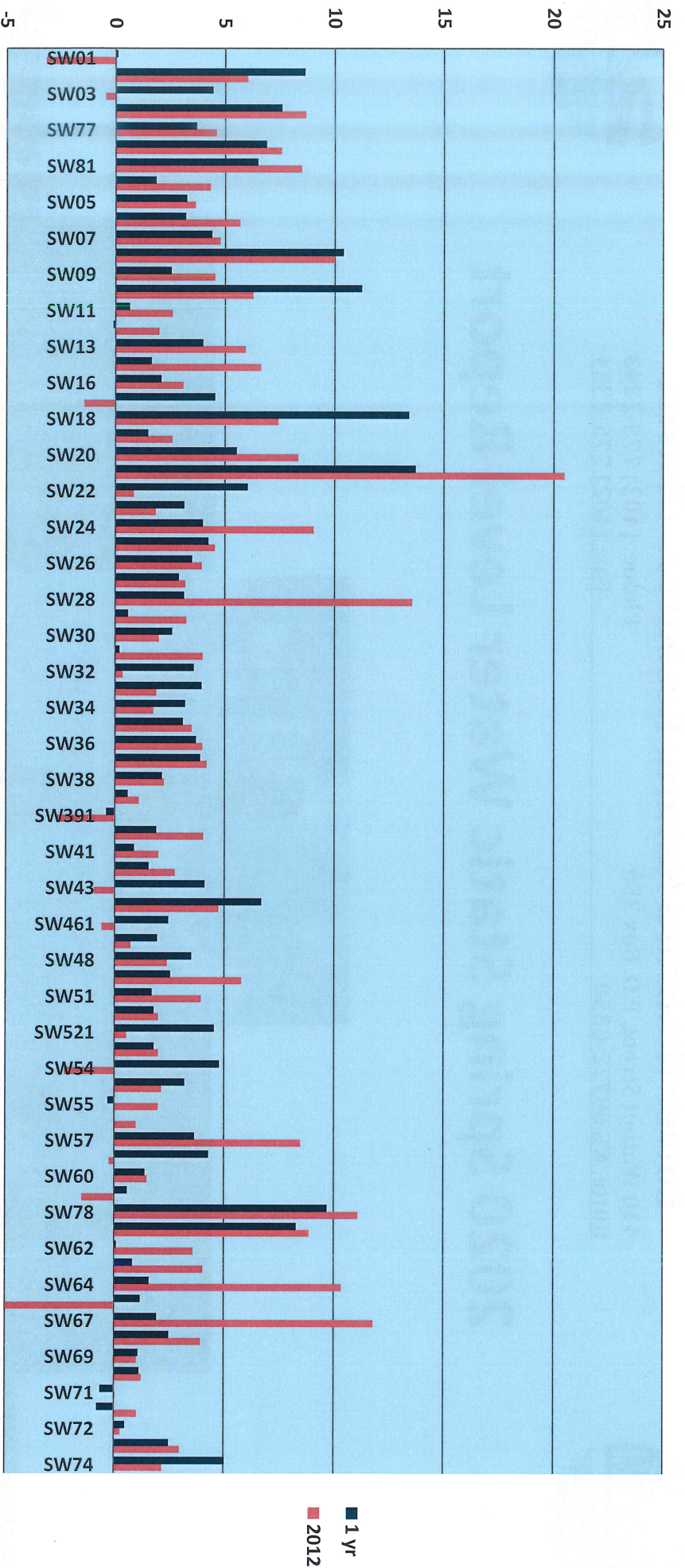


2020 Spring Static Water Level Report



Wade Ellwanger
Water Resources Coordinator

Individual SWL Changes



The blue line for each well indicates the change from 2019.
 The red line for each well indicates the change from 2012.

Well changes from 2019

- 73 wells increased SWL
- 5 wells decreased SWL
- 1 well had no change in SWL

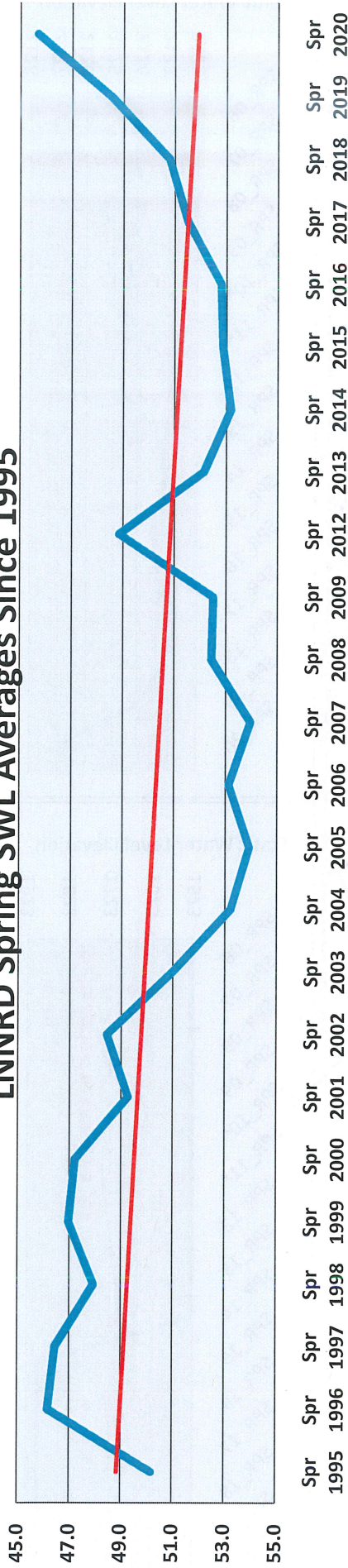
Range of SWL change = **-0.8' to +13.7'**
 Average change in SWL = **+3.34'**

Well changes from 2012

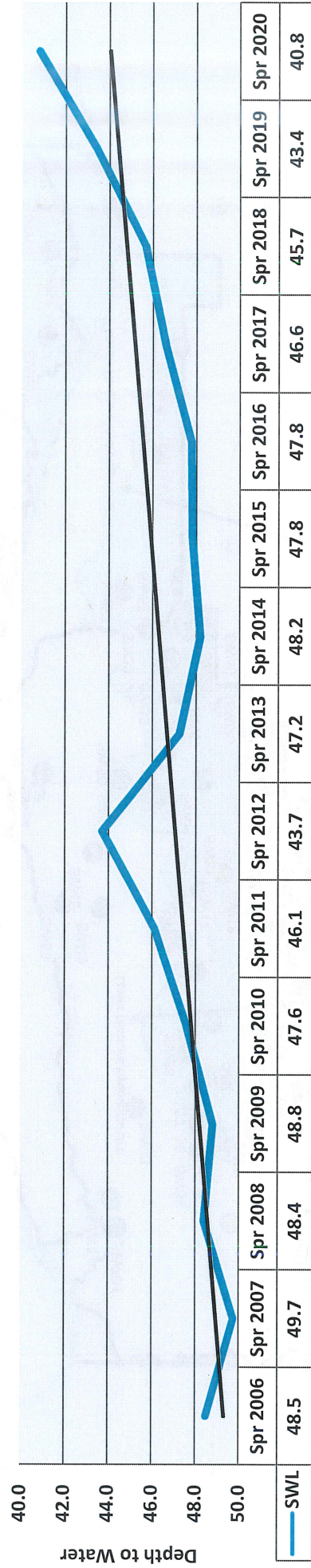
- 69 wells increased SWL
- 10 wells decreased SWL
- 0 wells had no change in SWL

Range of SWL change = **-5.1' to +20.5'**
 Average change in SWL = **+3.67'**

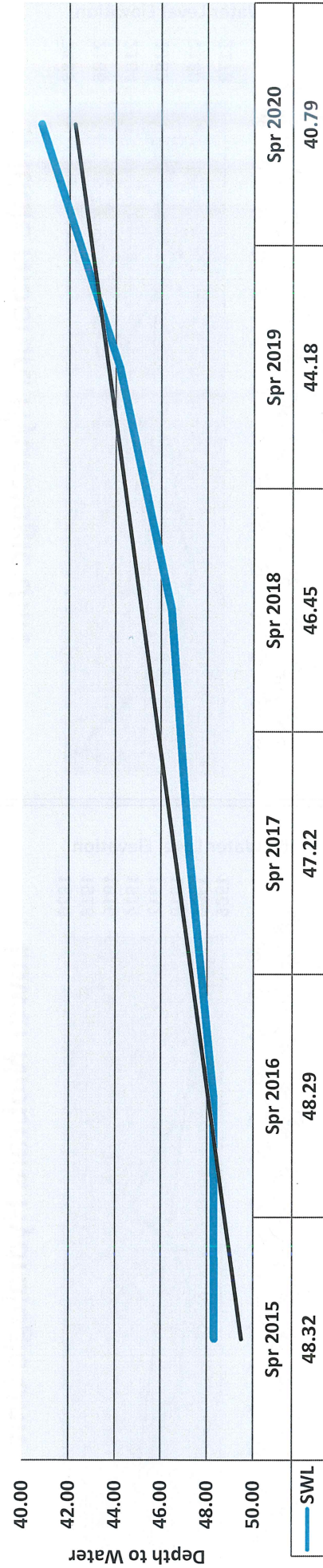
LNNRD Spring SWL Averages Since 1995



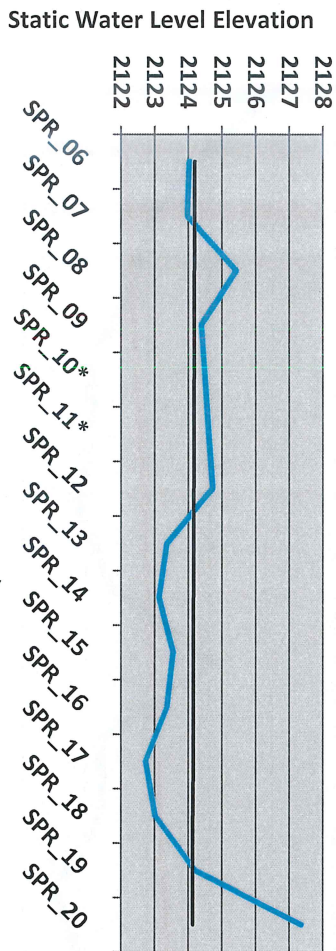
LNNRD Spring SWL Averages Since 2006



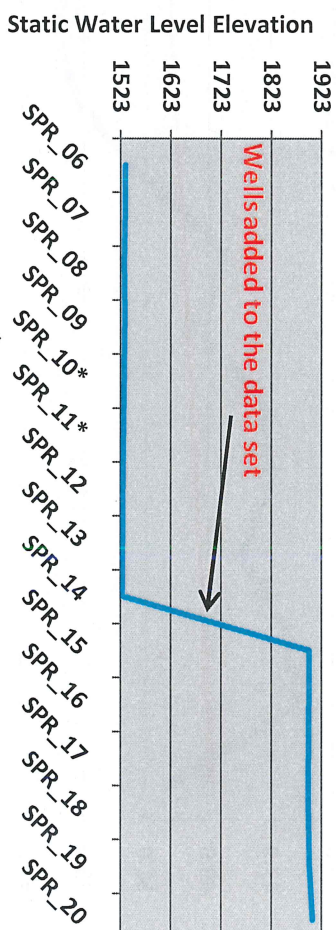
LNNRD Spring SWL Averages Since 2015



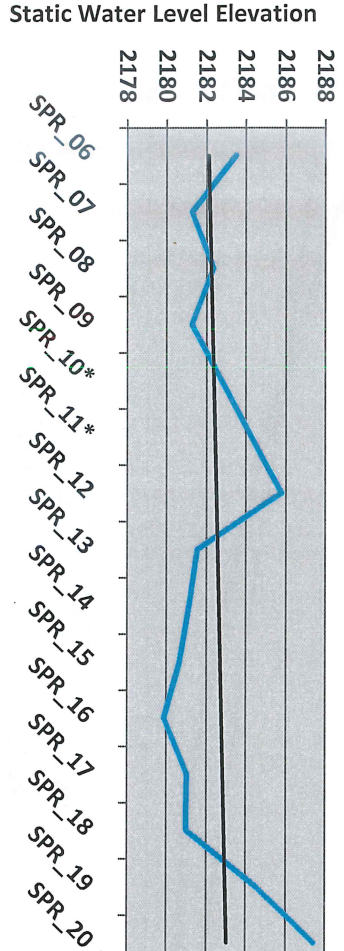
Keya Paha Hydrologic Unit



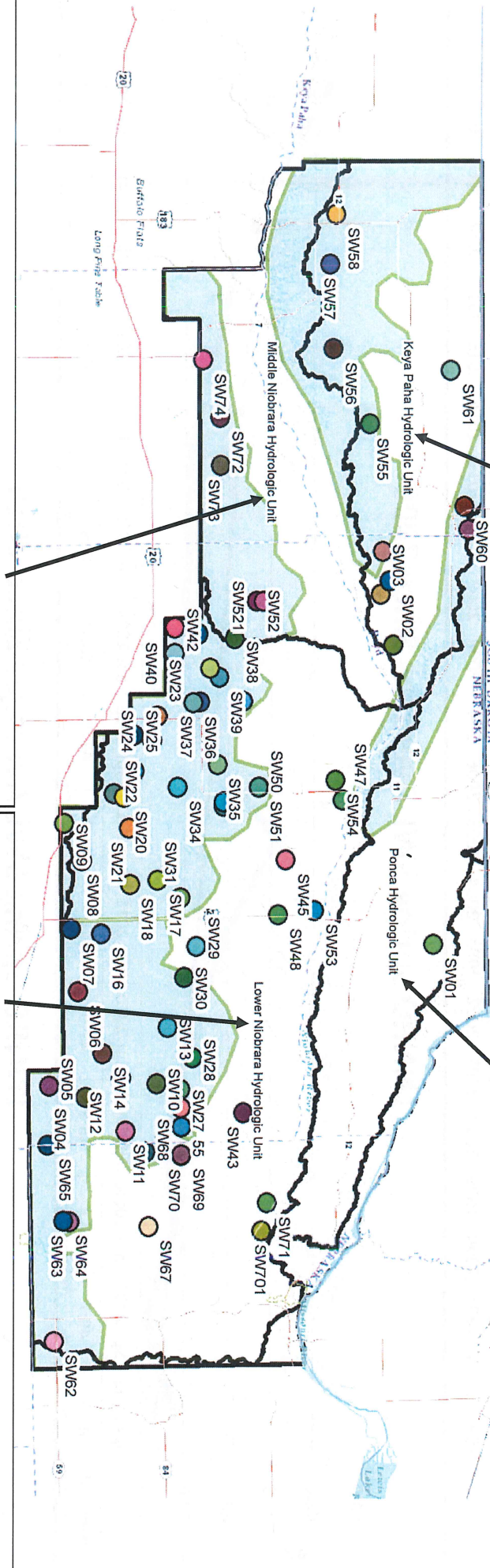
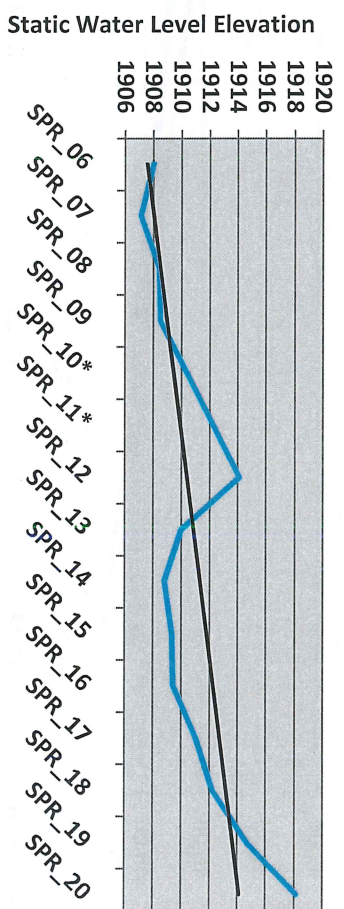
Ponca Hydrologic Unit



Middle Niobrara Hydrologic Unit

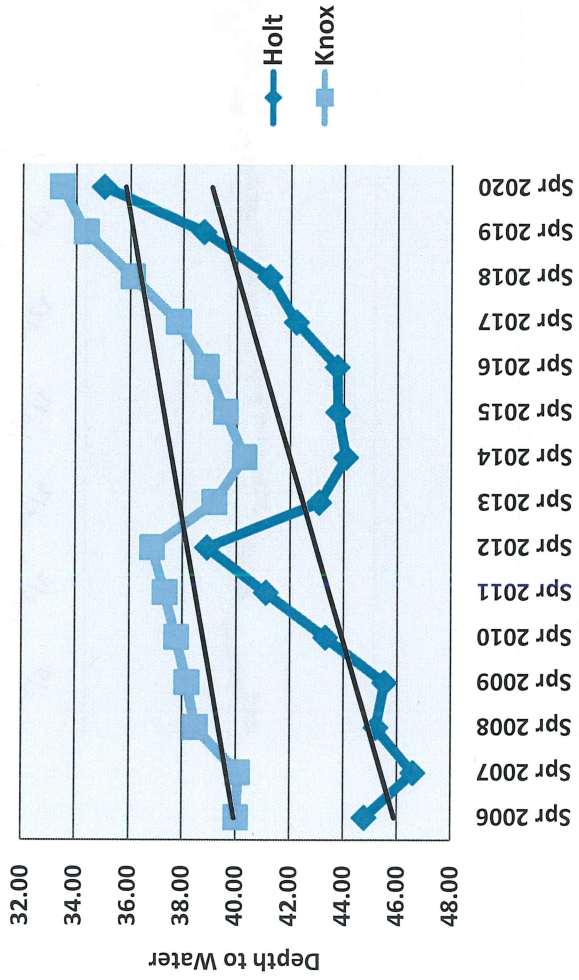


Lower Niobrara Hydrologic Unit

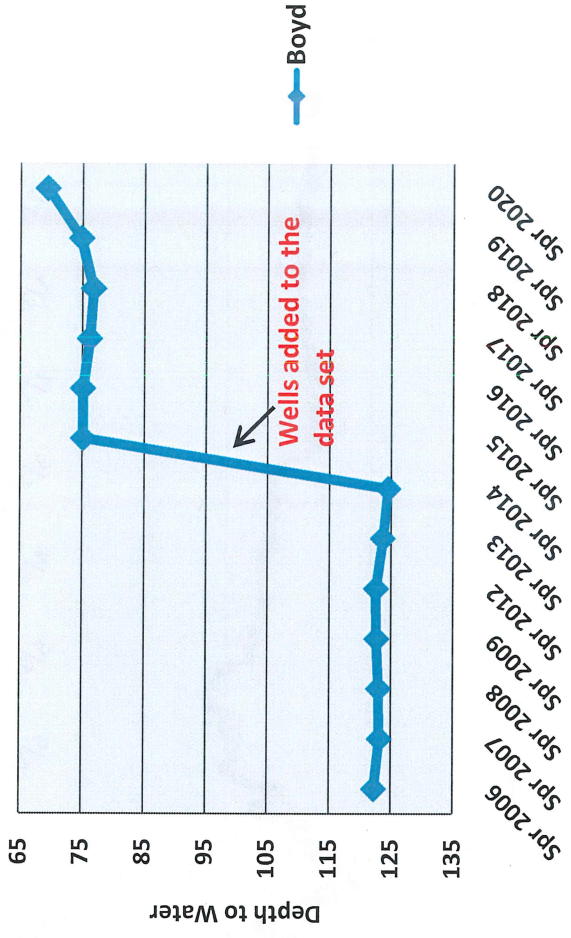


LNNRD Spring Static Water Levels by County

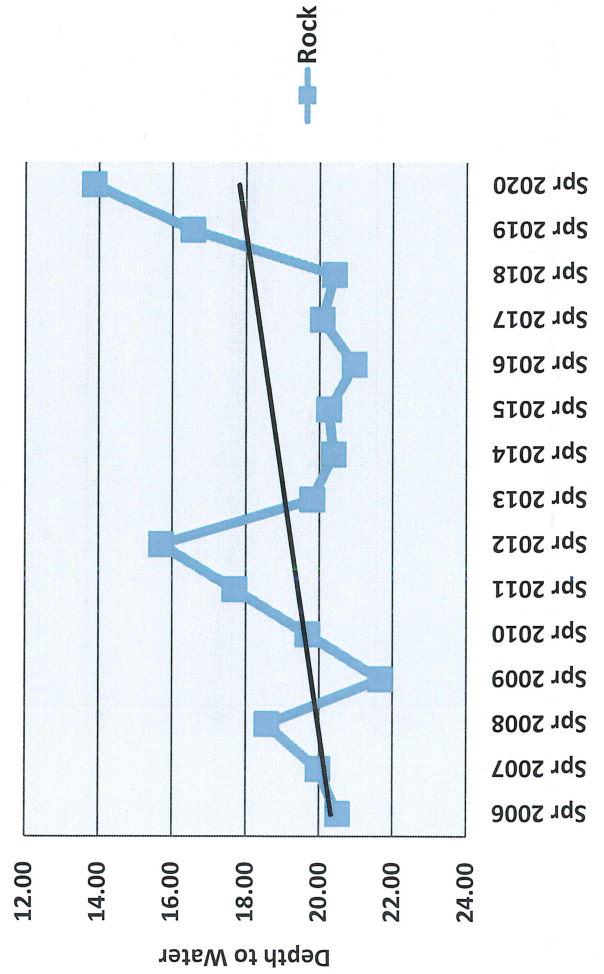
Spring SWL in Holt and Knox Counties



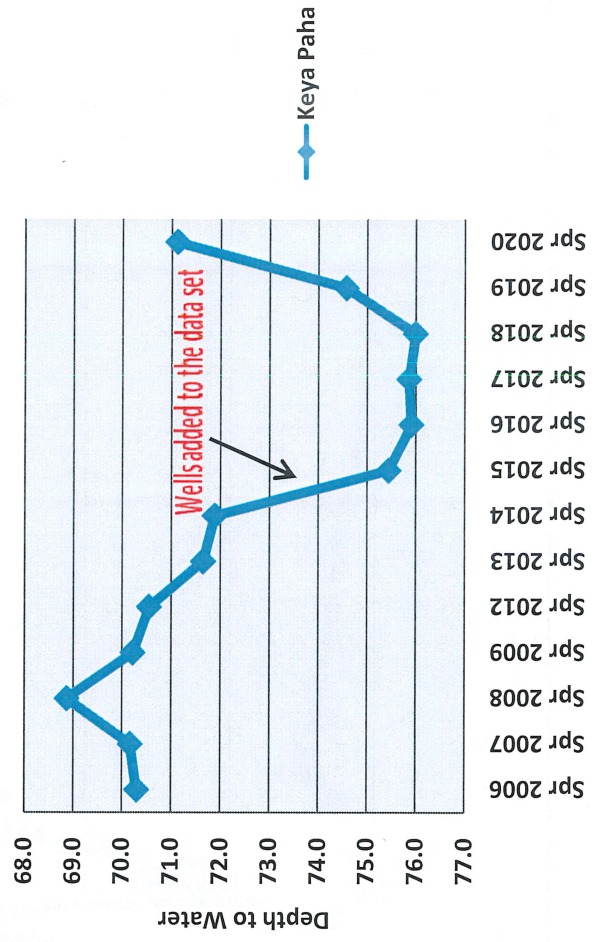
Spring SWL in Boyd County



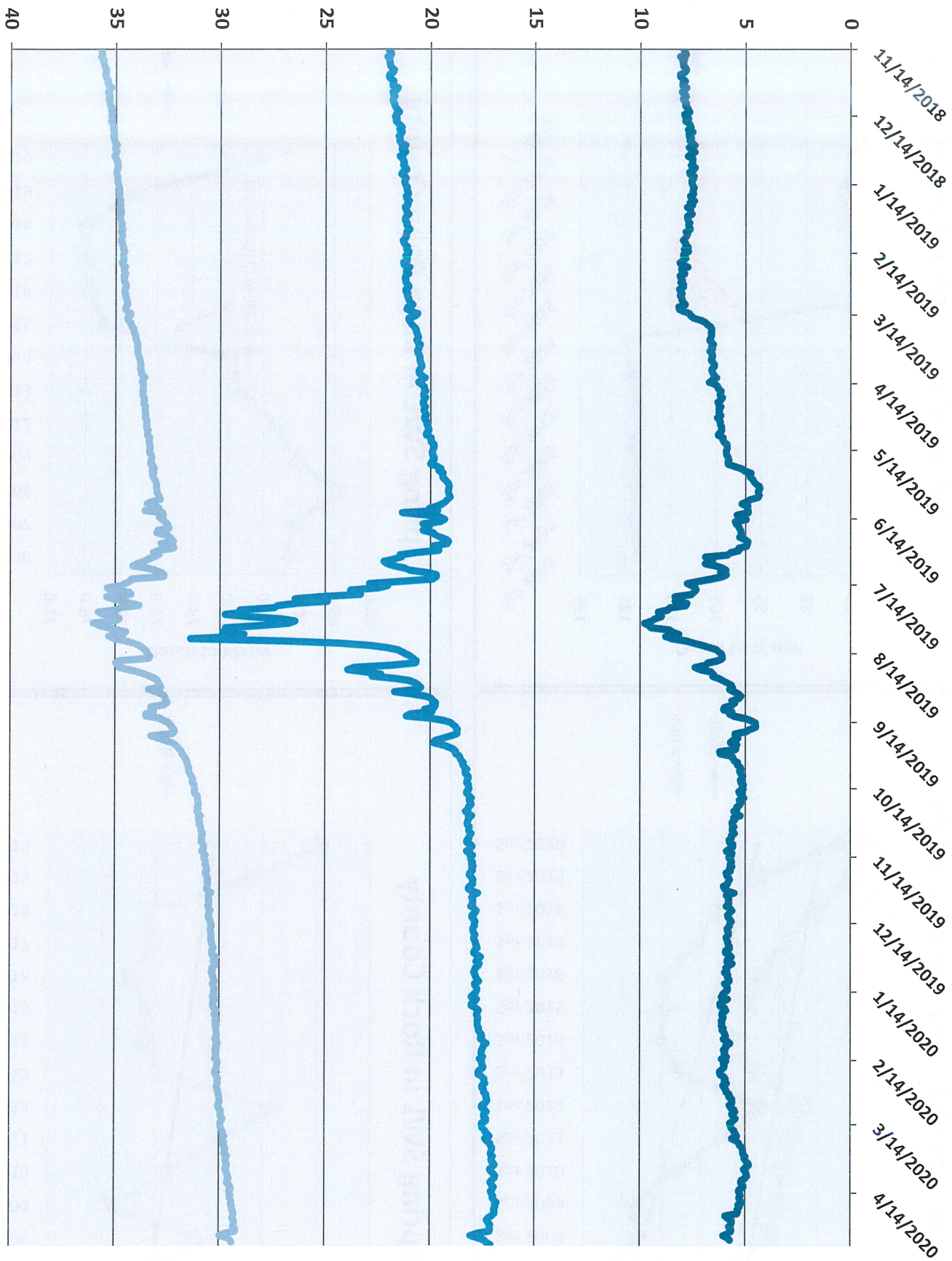
Spring SWL in Rock County



Spring SWL in Keya Paha County



Transducer Data



— Stuart
— Emmet
— Atkinson

Dedicated Monitoring Wells

(Comparative Spring Measurements)

DMW	Well Depth	Reg #	Spring 2019	SWL in ft	Nitrates	Spring 2020	SWL in ft	Nitrates	SWL Δ	Nitrate Δ
Sec. 20-31-15										
S1	28		6/4/2019	7.65	24.4	5/12/2020	8.4	18.1	-0.75	-6.3
S2	28	G-106782	6/4/2019	8.3	20.9	5/12/2020	8.85	19.8	-0.55	-1.1
S3	28	G-106783	6/4/2019	3.8	10.3	5/12/2020	5.2	6.1	-1.4	-4.2
S5	28		6/4/2019	9.75	13.3	5/12/2020	11.35	9.9	-1.6	-3.4
S6	73	G-106786	6/4/2019	4.4	15.8	5/12/2020	5.75	11.9	-1.35	-3.9
S7	144	G-106787	6/4/2019	4.45	Troll	5/12/2020	5.7		-1.25	
Average Δ				6.39	16.94		7.54	13.16	-1.15	-3.78
Sec. 31-30-12										
E1	55	G-106776	6/4/2019	18	0.3	5/12/2020	16.25	0.1	1.75	-0.2
E2	28	G-106777	6/4/2019	0.4	NS	5/12/2020	1.2		-0.8	
E3	48	G-106778	6/4/2019	24.2	23.8	5/12/2020	24.4	37.4	-0.2	13.6
E4	134	G-106779	6/4/2019	19.2	7.2	5/12/2020	17.45	10.2	1.75	3
E5	258	G-106780	6/4/2019	18.75	Troll	5/12/2020	17.1		1.65	
Average Δ				16.11	11.85		15.28	15.90	0.83	5.47
Sec. 21-31-14										
A1	55	G-081465	6/4/2019	33.55	19.3	5/12/2020	30	17.5	3.55	-1.8
A2	55	G-081464	6/4/2019	32.45	31.4	5/12/2020	28.85	25.8	3.6	-5.6
A5	140	G-088812	6/4/2019	32.8	Troll	5/12/2020	29.4		3.4	
A6	80	G-088812	6/4/2019	31.65	30.3	5/12/2020	28.05	25	3.6	-5.3
Average Δ				32.61	27.00		29.08	22.77	3.54	-4.23
Sec. 31-29-6										
West G (G2)	217	G-164447	6/17/2019	82.35	3.5	5/12/2020	79.85	5	2.5	1.5
East G (G1)	230	G-164448	6/17/2019	81.5	2	5/12/2020	80.95	2.4	0.55	0.4
Average Δ				81.925	2.75		80.4	3.7	1.525	0.95

S = Stuart
E = Emmet
A = Atkinson
G = Glazer, South West of NRD 80

