2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, Washington
Agreed Order No. 03TCPER-5649

December 1, 2020

Submitted to:
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1.0 INTRODUCTION

On behalf of Nutrien Ag Solutions, Inc. (Nutrien), Rubik is submitting this 2020 Annual Groundwater Monitoring and Sampling and Site Improvements Report for the facility located at 3482 Glade Road North in Pasco, Washington (site, **Figure 1**). Field activities were completed between September 21 to 23, 2020 in accordance with the September 2020 Amended Site Improvements Work Plan. The Amended Work Plan included recommendations made by Washington Department of Ecology (Ecology) in their August 20, 2020 approval email. Well and gallery destructions located on the portion of the property leased from Burlington Northern Santa Fe Corp. Railway (BNSF) will be completed once access is confirmed from BNSF.

1.1 Objectives

The objectives of this project were to:

- Complete cap maintenance required by the Draft Cleanup Action Plan (DCAP),
- Destroy the monitoring wells and injection galleries no longer used at the site to expand site operational areas and eliminate potential conduits to groundwater,
- Locate monitoring well MW-17, which was buried by road improvements, and
- Complete annual monitoring and sampling activities.

1.2 Chemical of Concern

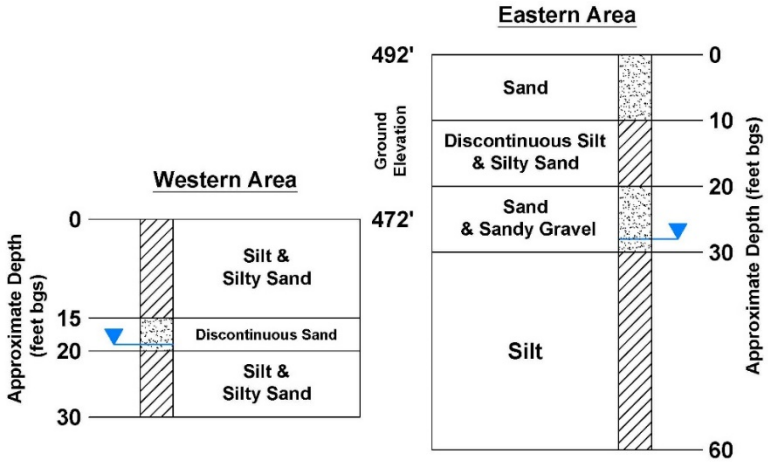
The chemical of concern (COC) in groundwater is nitrate.

2.0 SITE DESCRIPTION

The site has been an active retail agricultural facility since 1973. Nutrien (formerly, Crop Production Services) has owned and operated the site since 1995 and uses it for sales of bulk liquid and dry fertilizers, liquid pesticides, and pre-packaged fertilizers and pesticides. A site vicinity map is included as **Figure 1** and current and former site features are shown on **Figure 2**.

3.0 GEOLOGY AND HYDROGEOLOGY

The geology beneath the site is summarized below.



3.1 Hydrogeology

The depth to water at the site ranges from approximately 18 feet (western end) to 28 feet (eastern end) below the ground surface (bgs). Groundwater flows to the southwest at an average gradient of 0.01 feet per foot (ft/ft). Monitoring well locations are shown on **Figure 2** and construction details are summarized in **Table 1**.

4.0 SITE IMPROVEMENT ACTIVITIES

4.1 Asphalt Cap Overlay

Seven asphalt caps were constructed in 2004 and were due for scheduled maintenance. Per the DCAP, an asphalt overlay is required every 15 years to ensure the caps longevity and integrity. A Washington licensed contractor cleaned the caps of debris, applied tack coat for bonding purposes and overlayed the existing caps with a minimum of 1-inch of asphalt. Locations of the asphalt caps are shown on **Figure 2** and pictures of the completed overlay are presented in **Appendix A**.

4.2 Injection Gallery and Well Network Modifications

The injection gallery and well network modifications are summarized below and shown on **Figure 2**:

- Monitoring wells that are no longer part of the sampling program and were decommissioned include MW-3, MW-6, MW-7, MW-8, MW-11, MW-12, MW-13, IW-01, IW-02, and DR-01.
- Well MW-17 was buried by road improvements and had not been sampled in two years. The well was located, checked for integrity, and incorporated back into the annual monitoring and sampling program.
- Injection galleries located on Nutrien owned portion of the property were decommissioned.

4.3 Permitting

Well destruction Notices of Intent (NOIs) were obtained from Ecology prior to the start of field work by Cascade Drilling Services, LLC (Cascade). A construction permit was also obtained from Franklin County for the repair of well MW-17 and the decommissioning of the monitoring wells along N. Railroad Avenue, and is presented in **Appendix B**. An Underground Injection Control (UIC) well closure form was submitted to Ecology following the destruction of the injection galleries and is presented as **Appendix C**. Rubik notified Ecology and Franklin County at least 48 hours prior to the field work.

4.4 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) was reviewed and signed by all field personnel, including subcontractors, prior to work initiation. The HASP identified potential health and safety

hazards for each phase of site work and included requirements and procedures for protection. The HASP was maintained onsite during the field activities.

4.5 Utility Clearance

Washington Utility Notification Center was notified a minimum of 48 hours in advance of subsurface activities to identify underground utilities. A private utility locator also performed a geophysical survey in the vicinity of each drilling location to identify potential utilities or other subsurface obstructions. If facility personnel, data from previous borings, and/or the utility clearance contractor are unable to verify a location is utility free, a hand auger was advanced to approximately 5 feet bgs prior to drilling to manually clear the location.

4.6 Monitoring Well Decommission

At each location, the well box and approximately five feet of well casing was removed. The resulting annular space was sealed using neat cement delivered through a tremie pipe from the bottom of the borehole to approximately five feet bgs. Dry bentonite was be placed in the remaining annulus to just below the ground surface and the remainder completed to match the surrounding surface conditions. Well decommissioning logs are presented in **Appendix D**.

4.7 Well MW-17 Locate

Well MW-17 was buried by road improvements and was unlocatable during the last two sampling events. The well was located using a metal detector and Global Positioning System (GPS) location device. It was buried under ~6 inches of gravel and the well and well box was inspected and determined to be intact.

4.8 Injection Gallery Decommission

At each location, the well boxes, vertical piping, and gallery infrastructure up to 3 feet bgs was removed and the vertical ends of the injection galleries were plugged using concrete and according to UIC Ecology guidelines. The excavated area was backfilled with native soil and completed to match the surrounding surface conditions.

4.9 Decontamination and Waste Management

Down-hole drilling equipment was decontaminated prior to decommissioning each well using high-pressure cleaning equipment. The decontamination rinsate is staged on site prior to characterization and disposal at an appropriate off-site facility.

5.0 GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling activities were completed on September 23, 2020. Seven wells were gauged for depth to groundwater (MW-4, MW-14 to MW-17, MW-19, and MW-20) and six were sampled. MW-17 had less than a foot of water in the well and could not be sampled.

5.1 Groundwater Level Measurements

Current groundwater elevations are summarized in **Table 2** and historical groundwater elevations are presented in **Table 3**. The depths to groundwater over time are presented on the graphs in **Appendix E**. September 2020 Groundwater elevation contours and a rose diagram depicting historical flow directions are presented on **Figure 3**.

5.2 Groundwater Sampling and Analysis

A low flow pump and dedicated tubing were used to purge the wells and collect samples from a discrete point within the saturated screened interval. Temperature, pH, specific conductivity, turbidity, dissolved oxygen, and oxidation reduction potential were measured at approximately five-minute intervals and recorded on field sheets, provided as **Appendix F**. Following parameter stabilization, groundwater samples were collected using the low flow pump and dedicated tubing.

The samples were transferred to containers supplied by ALS Environmental (ALS), labeled, logged onto a chain of custody, and stored in a sealed cooler with sufficient ice to maintain a temperature of approximately 4 ± 2 degrees Celsius. The samples were shipped to ALS for analysis of nitrate-N (reported as nitrate as nitrogen [-N] plus nitrite-N) by Environmental Protection Agency (EPA) Method 353.2.

5.3 Groundwater Analytical Results

September 2020 groundwater analytical results are summarized on **Figure 4** and in **Table 2**. Historical groundwater analytical data are presented in **Table 3**. Laboratory analytical reports and chain of custody documents are presented as **Appendix G**. Graphs comparing nitrate concentrations and depth to groundwater over time are presented as **Appendix E**.

5.4 Quality Assurance / Quality Control

Quality assurance/control (QA/QC) protocols included reviewing the analytical data for qualifiers, accuracy, precision, and conformance with holding times and method detection limits. A blind duplicate sample (DUP) was collected from well MW-4 and submitted to the laboratory for analysis. Results from the primary and duplicate samples are presented in **Table 2**.

5.5 Wastewater Disposal

Purge and decontamination water generated during the sampling event were transferred to a 55-gallon drum that is temporarily being stored on site pending characterization and off-site disposal.

6.0 PATH FORWARD

- Continue annual monitoring and sampling with the next event scheduled for June 2021.
- Decommission monitoring wells MW-5, MW-10, and MW-18 and the remaining injection galleries once access is granted by BNSF.

FIGURES

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

Rubik
320 Flint Street
Reno, Nevada 89501
(775) 622-0857

VICINITY MAP

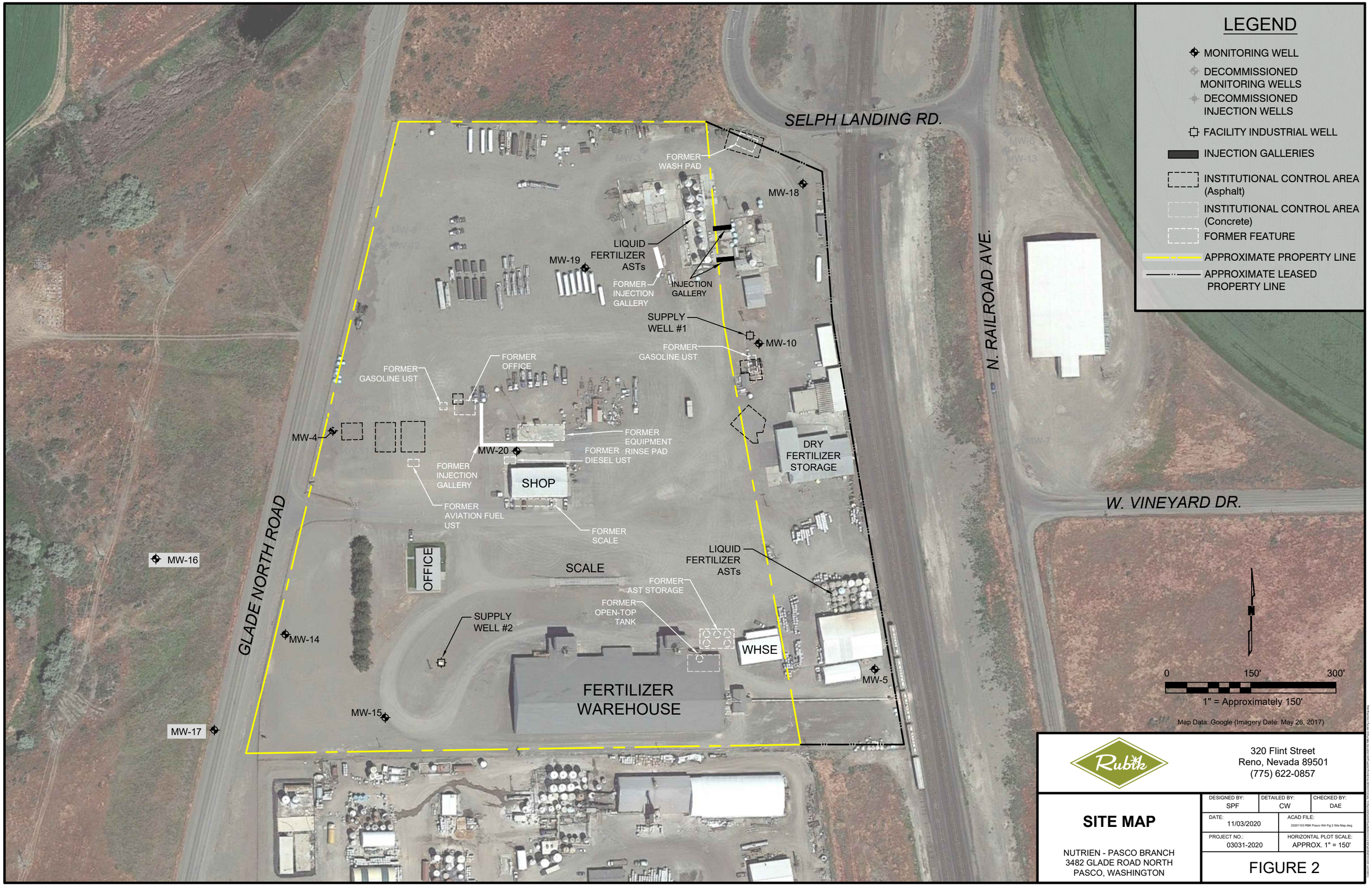
NUTRIEN - PASCO BRANCH
3482 GLADE ROAD NORTH
PASCO, WASHINGTON

DESIGNED BY:	DETAILED BY:	CHECKED BY:
CW	CW	SPF

DATE: 6/25/2019

PROJECT NO.:	PLOT SCALE:
03031-2019-MS	APPROX. 1" = 0.5 MILE

FIGURE 1



320 Flint Street
Reno, Nevada 89501
(775) 622-0857

SITE MAP

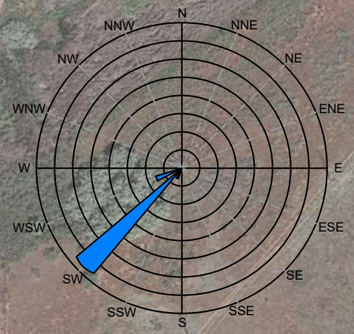
NUTRIEN - PASCO BRANCH
3482 GLADE ROAD NORTH
PASCO, WASHINGTON

DESIGNED BY:	DETAILED BY:	CHECKED BY:
SPF	CW	DAE

DATE:	ACAD FILE:
11/03/2020	20201103 RBK Pasco WA Fig 2 Site Map.dwg
PROJECT NO.: 03031-2020	HORIZONTAL PLOT SCALE: APPROX. 1" = 150'

FIGURE 2

GROUNDWATER FLOW DIRECTIONS
September 2004 - September 2020



SELPH LANDING RD.

N. RAILROAD AVE.

W. VINEYARD DR.

GLADE NORTH ROAD

MW-3

FORMER WASH PAD

MW-18
NG

MW-6

MW-13

MW-8

MW-12

MW-19
459.86

LIQUID FERTILIZER ASTs

FORMER INJECTION GALLERY

INJECTION GALLERY

SUPPLY WELL #1

MW-10
NG

FORMER GASOLINE UST

FORMER OFFICE

458.00

456.00

454.00

452.00

450.00

DR-01

IW-01

IW-02

MW-4
454.80

MW-11

MW-20
457.84

FORMER EQUIPMENT RINSE PAD

FORMER DIESEL UST

FORMER INJECTION GALLERY

FORMER AVIATION FUEL UST

SHOP

FORMER SCALE

0.015

DRY FERTILIZER STORAGE

MW-7

MW-16
449.69

OFFICE

SCALE

LIQUID FERTILIZER ASTs

FORMER AST STORAGE

FORMER OPEN-TOP TANK

SUPPLY WELL #2

MW-14
448.46

WHSE

MW-5
NG

FERTILIZER WAREHOUSE

MW-15
446.11

MW-17
Dry

LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELLS
- DECOMMISSIONED INJECTION WELLS
- FACILITY INDUSTRIAL WELL
- INJECTION GALLERIES
- INSTITUTIONAL CONTROL AREA (Asphalt)
- INSTITUTIONAL CONTROL AREA (Concrete)
- FORMER FEATURE
- APPROXIMATE PROPERTY LINE
- APPROXIMATE LEASED PROPERTY LINE
- 460.72 — GROUNDWATER ELEVATION (feet above mean sea level)
- 460 — GROUNDWATER CONTOUR (feet above mean sea level)
- 0.012 — GROUNDWATER GRADIENT DIRECTION & MAGNITUDE (ft/ft)
- NG — NOT GAUGED
- Dry — LESS THAN ONE FOOT OF WATER AND CONSIDERED DRY

N

0 150' 300'

1" = Approximately 150'

Map Data: Google (Imagery Date: May 26, 2017)

Rubicon
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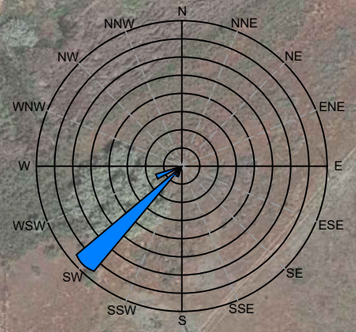
Reno, Nevada 89501
(775) 622-0857

GROUNDWATER ELEVATION AND CONTOUR MAP AUGUST 2020

NUTRIEN - PASCO BRANCH
3482 GLADE ROAD NORTH
PASCO, WASHINGTON

DESIGNED BY:	DETAILED BY:	CHECKED BY:
SPF	CW	DAE
DATE: 11/03/2020	ACAD FILE: 20201104 RBK Pasco WA Fig 3 GWE.dwg	
PROJECT NO.: 03031-2020	HORIZONTAL PLOT SCALE: APPROX. 1" = 150'	

FIGURE 3



SELPH LANDING RD.

N. RAILROAD AVE.

W. VINEYARD DR.

GLADE NORTH ROAD

MW-3

MW-6

MW-13

MW-7

MW-8

MW-12

MW-1

MW-2

MW-18
NS

FORMER WASH PAD

MW-19
Nitrate-N 42.7

LIQUID FERTILIZER ASTs

FORMER INJECTION GALLERY

INJECTION GALLERY

SUPPLY WELL #1

MW-10
NS

FORMER GASOLINE UST

FORMER GASOLINE UST

FORMER OFFICE

MW-4
Nitrate-N 41.9/41.2

FORMER EQUIPMENT RINSE PAD

FORMER DIESEL UST

MW-20
Nitrate-N 28.9

FORMER INJECTION GALLERY

SHOP

DRY FERTILIZER STORAGE

FORMER AVIATION FUEL UST

FORMER SCALE

MW-16
Nitrate-N 19.9

OFFICE

SCALE

LIQUID FERTILIZER ASTs

FORMER AST STORAGE

FORMER OPEN-TOP TANK

SUPPLY WELL #2

MW-14
Nitrate-N 40.7

WHSE

MW-5
NS

FERTILIZER WAREHOUSE

MW-15
Nitrate-N 42.5

MW-17
NS

LEGEND

- MONITORING WELL
- DECOMMISSIONED MONITORING WELLS
- DECOMMISSIONED INJECTION WELLS
- FACILITY INDUSTRIAL WELL
- INJECTION GALLERIES
- INSTITUTIONAL CONTROL AREA
- FORMER FEATURE
- APPROXIMATE PROPERTY LINE
- APPROXIMATE LEASED PROPERTY LINE

Well ID **MW-19**
Analyte Nitrate-N 53 Concentration in mg/L

Nitrate-N = Nitrate + Nitrite as Nitrogen
mg/L = Milligrams per liter
NS = Not Sampled

N

0 150' 300'

1" = Approximately 150'

Map Data: Google (Imagery Date: May 26, 2017)

Rubik

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GROUNDWATER ANALYTICAL RESULTS SEPTEMBER 2020

NUTRIEN - PASCO BRANCH
3482 GLADE ROAD NORTH
PASCO, WASHINGTON

DESIGNED BY:	DETAILED BY:	CHECKED BY:
SPF	CW	DAE
DATE: 11/03/2020	ACAD FILE: 20201105 RBK Pasco WA Fig 4 Analytical.dwg	
PROJECT NO.: 03031-2020	HORIZONTAL PLOT SCALE: APPROX. 1" = 150'	

FIGURE 4

TABLES

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

TABLE 1
MONITORING WELL CONSTRUCTION DETAILS
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well No.	Installation Date	Surface Completion	Well Diameter (inches)	Well Depth (ft bgs)	Screen Interval (feet bgs)	
					Top	Bottom
MW-3	12/10/1996	Flush	2	34	24	34
MW-4	12/9/1996	Flush	2	30	15	30
MW-5	12/9/1996	Stick-up	2	33	23	33
MW-6	1/13/1999	Stick-up	2	35	20	35
MW-7	1/13/1999	Stick-up	2	35	20	35
MW-8	1/12/1999	Stick-up	2	22	11	22
MW-10	1/11/1999	Stick-up	2	25	15	25
MW-11	2/22/1999	Stick-up	2	51	41	51
MW-12	2/23/1999	Stick-up	2	48	38	48
MW-13	10/23/2000	Stick-up	2	60	50	60
MW-14	10/24/2000	Stick-up	2	27	11.5	27
MW-15	February 2001	Stick-up	2	33	18	33
MW-16	September 2004	Stick-up	2	31.5	21	31.5
MW-17	September 2004	Flush	2	22.5	12.5	22.5
MW-18	3/31/2008	Flush	2	32.5	22.5	32.5
MW-19	4/2/2008	Flush	2	25	10	25
MW-20	4/2/2008	Flush	2	21	11	21
IW-01	10/9/2013	Flush	2	25	15	25
IW-02	10/9/2013	Flush	2	25	15	25
DR-01	10/9/2013	Flush	2	25	15	25
Well #1	unknown	--	unknown	50	unknown	unknown
Well #2	2/8/1972	--	6	81	53	81

Notes:

ft bgs = Feet below ground surface

All information is estimated using historical reports

Well #1 and Well #2 are onsite water supply wells used for industrial purposes

Gray = Well decommissioned September 2020

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Change in Elevation Since Last Event (June 2019)	Water Column Height (feet)	Nitrate-N (mg/L)
MW-4 / DUP	9/23/2020	17.98	454.80	0.01	13.22	**41.9 / 41.2**
MW-14	9/23/2020	21.73	448.46	-0.03	2.20	**40.7**
MW-15	9/23/2020	30.54	446.11	0.08	2.19	**42.5**
MW-16	9/23/2020	23.95	449.69	-0.03	10.68	**19.9**
MW-17	9/23/2020	22.16	--	--	0.82	--
MW-19	9/23/2020	19.87	459.80	0.08	4.80	**42.7**
MW-20	9/23/2020	17.43	457.84	0.09	3.64	**28.9**
					Established Regulatory Cleanup Level	**17.7**

Notes:
mg/L = Milligrams per liter
DUP = Duplicate sample
Bold = Concentration exceeds Established Regulatory Cleanup Level
ft amsl = Feet above mean sea level
-- = Not measured / analyzed
All Nitrate-N results are reported from a dilution.
MW-17 had less that one foot of water in the well and was considered dry.
Analytical Methods:
Nitrate-N = Analyzed as nitrate + nitrite as nitrogen by EPA Method 353.2

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date		Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level					**17.7[a]**	**7[b]**	**NE**
MW-3	12/11/99		30.49	460.61	**38.0**	**20.8**	--
491.10	07/16/98		30.73	460.37	--	--	--
	01/15/99	D	30.65	460.45	**24.7 / 25.7**	**78.7 / 81.1**	--
	02/23/99		30.71	460.39	--	--	--
	03/16/99		30.75	460.35	--	--	--
	04/15/99	D	30.82	460.28	**41.2 / 30.3**	**20.6 / 25.3**	--
	05/05/99		30.86	460.24	--	--	--
	06/16/99		30.88	460.22	--	--	--
	07/12/99		30.91	460.19	13.5	**16.9**	--
	08/18/99		30.84	460.26	--	--	--
	09/20/99		30.85	460.25	--	--	--
	10/14/99	D	30.74	460.36	**20 / 19.7**	--	--
	11/17/99	D	30.61	460.49	--	**21.8 / 34**	--
	12/16/99		30.61	460.49	--	--	--
	10/24/00		30.69	460.41			
	02/16/01		30.76	460.34	16.4	**16.8**	--
	05/22/01		31.02	460.08	12.4	4.36	--
	08/21/01		30.97	460.13	12.9	3.54J	--
	11/13/01		30.57	460.53	14.8	**12.3**	--
	02/05/02		30.76	460.34	17.0	**14.0**	--
	05/16/02		30.93	460.17	12.3	4.96	--
	08/06/02		30.86	460.24	10.9	<2.00	--
	11/12/02		30.50	460.60	12.8	**10.6 J**	--
	09/13/04		30.39	460.71	--	6.05	--
	03/18/05		30.59	460.51	--	<2.00	--
	09/08/05		30.49	460.61	--	<2.00	--
	03/02/06		30.44	460.66	--	<1.89	--
	09/27/06		30.38	460.72	--	<1.89	--
	03/27/07		30.45	460.65	--	0.045	--
	09/26/07		30.41	460.69	--	<0.023	--
	04/04/08		28.27	462.83	8.8	<0.023	--
	09/17/08		30.37	460.73	--	<0.022	--
	03/24/09		30.57	460.53	--	0.042	--
	10/14/09	D	30.32	460.78	--	<0.25 / <0.25	--
	12/23/09		30.27	460.83	--	<0.12	--
	03/11/10		30.40	460.70	--	<0.12	--
	06/24/10		30.55	460.55	--	--	--
	09/21/10		30.00	461.10	--	0.362 J	--
	12/16/10	D	29.90	461.20	--	<0.40 / 0.334 J	--
	03/30/11		30.25	460.85	--	<0.40	--
	09/29/11		30.15	460.95	--	--	--
	03/14/12		30.42	460.68	--	--	--
	09/25/12		30.03	461.07	--	--	--
	03/12/13		30.29	460.81	--	--	--
	11/16/13		29.99	461.11	--	--	--
	04/09/14		30.44	460.66	--	--	--
	10/27/14		30.11	460.99	--	--	--
	05/01/15		30.55	460.55	--	--	--
	06/06/16		30.59	460.51	--	--	--
	06/20/17		30.42	460.68	--	--	--
	06/25/18		30.60	460.50	--	--	--
	06/03/19		30.50	460.60	--	--	--
	09/22/20		Well Decommissioned				
MW-4	12/11/96		19.02	453.76	**46.6**	<1.00	--
472.78	07/16/98		18.40	454.38	--	--	--
	01/15/99		17.98	454.80	**68.7**	**9.36**	--
	02/23/99		18.07	454.71	--	--	--
	03/16/99		18.15	454.63	--	--	--
	04/14/99		18.25	454.53	**109**	4.11	--
	05/05/99		18.30	454.48	--	--	--
	06/16/99		18.33	454.45	--	--	--
	07/12/99		18.40	454.38	**22.3**	3.46	--

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date		Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level					**17.7**[a]	**7**[b]	**NE**
MW-4	08/18/99		18.33	454.45	--	--	--
(cont.)	09/20/99		18.28	454.50	--	--	--
	10/13/99		18.13	454.65	**44.5**	--	--
	11/16/99		17.97	454.81	--	2.28	--
	12/16/99		17.96	454.82	--	--	--
	10/25/00		17.90	454.88	--	--	--
	02/15/01		17.83	454.95	**34.9**	2.39	--
	05/21/01		18.13	454.65	**38.3**	<2.00	--
	08/21/01		18.50	454.28	**40.6**	<2.00	--
	11/13/01		17.80	454.98	**37.0**	<2.00	--
	02/05/02		18.22	454.56	**31.6**	<2.00	--
	05/16/02		18.08	454.70	**33.8**	<2.00	--
	08/06/02		18.08	454.70	**37.8**	<2.00	--
	11/12/02		17.59	455.19	**32.1**	<2.00	--
	09/14/04		17.60	455.18	**44.2**	--	--
	03/18/05		17.64	455.14	**45.9**	--	--
	09/08/05		17.76	455.02	**36.1**	3.90	--
	03/02/06		17.43	455.35	**33.3**	--	--
	09/28/06		17.65	455.13	**36.8**	3.30	--
	03/27/07		17.59	455.19	**40.0**	--	--
	09/26/07		17.72	455.06	**30.0**	1.90	--
	04/04/08		15.50	457.28	**37.0**	--	--
	09/17/08		17.68	455.10	**33.0**	1.50	--
	03/24/09		17.74	455.04	**34.0**	--	--
	10/14/09		17.74	455.04	**29.2**	2.60	--
	12/23/09		17.73	455.05	--	--	--
	03/11/10	D	17.19	455.59	**36.1 / 35.8**	4.5 / 4.6	--
	06/24/10		17.97	454.81	--	--	--
	09/21/10		17.72	455.06	**32.7**	3.46	--
	12/15/10		17.34	455.44	--	--	--
	03/30/11		21.20	451.58	10.8		--
	09/29/11		17.85	454.93	**38.6**	--	--
	03/14/12		17.85	454.93	**38.9**	--	--
	09/25/12		17.70	455.08	**36.1**	--	3.48
	03/12/13	D	17.76	455.02	**43 / 42**	--	2.9 / 1.9
	10/14/13		17.77	455.01	**35.0**	--	1.74
	11/16/13	D	17.64	455.14	**34.7 / 34.5**	--	3.4 / 3.1
	04/10/14	D	18.00	454.78	**38.8 / 39.8**	--	3.55 / 3.65
	10/27/14	D	17.68	455.10	**27 / 27**	--	2.64 / 2.69
	05/01/15	D	18.18	454.60	**31.8 / 32.3**	--	4.26 / 4.35
	06/06/16	D	18.21	454.57	**34 / 35**	--	5.3 / 5.8
	06/20/17	D	18.03	454.75	**36.2 / 30.4**	--	3.84 / 3.98
	06/25/18	D	18.26	454.52	**44.3 / 42.3**	--	2.99 / 2.91
	06/03/19	D	17.99	454.79	**40.2 / 40.7**	--	2.42 / 2.21
	09/23/20	D	17.98	454.80	**41.9 / 41.2**	--	--
MW-5	12/11/96		30.82	459.93	14.6	4.38	--
490.75	07/16/98		31.27	459.48	--	--	--
	01/15/99		31.07	459.68	14.0	5.26	--
	02/23/99		31.18	459.57	--	--	--
	03/16/99		31.23	459.52	--	--	--
	04/14/99		31.32	459.43	**28.7**	2.98	--
	05/05/99		31.38	459.37	--	--	--
	06/16/99		31.40	459.35	--	--	--
	07/12/99		31.41	459.34	10.5	5.30	--
	08/18/99		32.36	458.39	--	--	--
	09/20/99		31.34	459.41	--	--	--
	10/14/99		31.21	459.54	13.4	--	--
	11/17/99		31.09	459.66	--	2.52	--
	12/16/99		31.06	459.69	--	--	--
	10/24/00		31.19	459.56	--	--	--
	02/15/01		31.24	459.51	10.8	2.84	--
	05/22/01		31.56	459.19	10.7	2.60	--

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-5	08/22/01	31.54	459.21	10.9	3.02J	--
(cont.)	11/13/01	31.08	459.67	**28.9**	2.45	--
	02/04/02	31.25	459.50	11.0	<2.00	--
	05/17/02	31.50	459.25	9.5	<2.00	--
	08/07/02	31.45	459.30	10.5	<2.00	--
	11/12/02	31.03	459.72	11.0	<2.00	--
	09/13/04	30.93	459.82	--	--	--
	03/18/05	31.05	459.70	--	--	--
	09/07/05	31.05	459.70	--	--	--
	03/01/06	31.01	459.74	--	--	--
	09/27/06	30.89	459.86	--	--	--
	03/27/07	30.91	459.84	--	--	--
	09/11/07	30.89	459.86	--	--	--
	04/04/08	29.04	461.71	11.0	--	--
	09/16/08	30.93	459.82	--	--	--
	03/24/09	31.04	459.71	--	--	--
	10/14/09	30.69	460.06	--	--	--
	12/23/09	29.62	461.13	--	--	--
	03/10/10	30.84	459.91	--	--	--
	06/24/10	31.03	459.72	--	--	--
	09/20/10	30.47	460.28	--	--	--
	12/15/10	30.20	460.55	--	--	--
	03/29/11	30.70	460.05	--	--	--
	09/29/11	30.63	460.12	--	--	--
	03/14/12	30.78	459.97	--	--	--
	09/25/12	30.34	460.41	--	--	--
	03/12/13	30.61	460.14	--	--	--
	11/16/13	30.24	460.51	--	--	--
	04/09/14	30.78	459.97	--	--	--
	10/27/14	30.47	460.28	--	--	--
	05/01/15	30.93	459.82	--	--	--
	06/06/16	30.99	459.76	--	--	--
	06/20/17	30.84	459.91	--	--	--
	06/25/18	30.94	459.81	--	--	--
	06/03/19	30.93	459.82	--	--	--
	09/23/20	--	--	--	--	--
MW-6	01/15/99	27.53	461.49	8.92	<1.00	--
489.02	02/23/99	27.63	461.39	--	--	--
	03/16/99	27.70	461.32	--	--	--
	04/14/99	27.80	461.22	**17.9**	<2.00	--
	05/05/99	27.82	461.20	--	--	--
	06/16/99	27.86	461.16	--	--	--
	07/12/99	27.85	461.17	9.36	<2.00UJ	--
	08/18/99	27.78	461.24	--	--	--
	09/20/99	27.73	461.29	--	--	--
	10/14/99	27.59	461.43	10.5	--	--
	11/16/99	27.44	461.58	--	<2.27	--
	12/16/99	27.46	461.56	--	--	--
	10/24/00	27.50	461.52	--	--	--
	02/15/01	27.68	461.34	--	--	--
	05/21/01	27.96	461.06	--	--	--
	08/21/01	27.96	461.06	--	--	--
	11/13/01	27.41	461.61	--	--	--
	02/04/02	27.71	461.31	--	--	--
	05/16/02	27.91	461.11	--	--	--
	08/06/02	27.82	461.20	--	--	--
	11/12/02	27.35	461.67	--	--	--
	09/13/04	27.18	461.84	--	--	--
	03/18/05	27.43	461.59	--	--	--
	09/07/05	27.31	461.71	--	--	--
	03/01/06	27.32	461.70	--	--	--
	09/27/06	27.15	461.87	--	--	--

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-6 (cont.)	03/27/07	27.29	461.73	10.0	--	--
	09/11/07	27.16	461.86	8.6	--	--
	04/03/08	NM	--	--	--	--
	09/16/08	27.15	461.87	--	--	--
	03/24/09	27.41	461.61	--	--	--
	10/14/09	27.00	462.02	--	--	--
	12/23/09	26.96	462.06	--	--	--
	03/10/10	27.21	461.81	--	--	--
	06/24/10	27.38	461.64	--	--	--
	09/20/10	26.63	462.39	--	--	--
	12/15/10	26.50	462.52	--	--	--
	03/29/11	27.00	462.02	--	--	--
	09/29/11	26.83	462.19	--	--	--
	03/14/12	27.13	461.89	--	--	--
	09/25/12	26.60	462.42	--	--	--
	03/12/13	26.95	462.07	--	--	--
	11/16/13	26.52	462.50	--	--	--
	04/09/14	27.15	461.87	--	--	--
	10/27/14	26.77	462.25	--	--	--
	05/01/15	22.14	466.88	--	--	--
	06/06/16	27.31	461.71	--	--	--
	06/20/17	27.17	461.85	--	--	--
	06/25/18	27.33	461.69	--	--	--
	06/03/19	27.30	461.72	--	--	--
	09/22/20	Well Decommissioned				
MW-7 488.67	01/15/99	28.44	460.23	9.32	<1.00	--
	02/23/99	28.57	460.10	--	--	--
	03/16/99	28.62	460.05	--	--	--
	04/14/99	28.72	459.95	**18.1**	<2.00	--
	05/05/99	28.78	459.89	--	--	--
	06/16/99	28.82	459.85	--	--	--
	07/12/99	28.81	459.86	9.79	<2.00	--
	08/18/99	28.75	459.92	--	--	--
	09/20/99	28.72	459.95	--	--	--
	10/14/99	28.58	460.09	12.4	--	--
	11/16/99	28.45	460.22	--	<2.25	--
	12/16/99	28.44	460.23	--	--	--
	10/24/00	28.55	460.12	--	--	--
	02/15/01	28.61	460.06	--	--	--
	05/21/01	28.99	459.68	--	--	--
	08/21/01	28.97	459.70	--	--	--
	11/13/01	28.44	460.23	--	--	--
	02/04/02	28.70	459.97	--	--	--
	05/16/02	28.91	459.76	--	--	--
	08/06/02	28.84	459.83	--	--	--
	11/12/02	28.41	460.26	--	--	--
	09/13/04	28.26	460.41	--	--	--
	03/18/05	28.43	460.24	--	--	--
	09/07/05	28.40	460.27	--	--	--
	03/01/06	28.38	460.29	--	--	--
	09/27/06	28.22	460.45	--	--	--
	03/27/07	28.25	460.42	10.0	--	--
	09/11/07	28.24	460.43	10.0	--	--
	04/03/08	NM	--	--	--	--
	09/16/08	28.24	460.43	--	--	--
	03/24/09	25.41	463.26	--	--	--
	10/14/09	28.01	460.66	--	--	--
	12/23/09	27.93	460.74	--	--	--
	03/10/10	28.22	460.45	--	--	--
	06/24/10	28.34	460.33	--	--	--
	09/20/10	27.74	460.93	--	--	--
	12/15/10	27.49	461.18	--	--	--

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HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-7 (cont.)	03/29/11	27.96	460.71	--	--	--
	09/29/11	28.02	460.65	--	--	--
	03/14/12	28.15	460.52	--	--	--
	09/25/12	27.60	461.07	--	--	--
	03/12/13	27.95	460.72	--	--	--
	11/16/13	27.53	461.14	--	--	--
	04/09/14	28.13	460.54	--	--	--
	10/27/14	27.74	460.93	--	--	--
	05/01/15	28.33	460.34	--	--	--
	06/06/16	28.34	460.33	--	--	--
	06/20/17	28.18	460.49	--	--	--
	06/25/18	28.29	460.38	--	--	--
	06/03/19	28.27	460.40	--	--	--
	09/22/20	Well Decommissioned				
MW-8 473.04	01/15/99	15.80	457.24	17.2	**8.28**	--
	02/23/99	15.81	457.23	--	--	--
	03/16/99	15.85	457.19	--	--	--
	04/13/99	15.93	457.11	**38.5**	**11.5**	--
	05/05/99	15.97	457.07	--	--	--
	06/16/99	15.97	457.07	--	--	--
	07/12/99 D	16.04	457.00	13.6 / 14.7	**10.8 / 10.3**	--
	08/18/99	15.91	457.13	--	--	--
	09/20/99	16.04	457.00	--	--	--
	10/13/99	15.94	457.10	17.5	--	--
	11/16/99	15.87	457.17	--	**13.5**	--
	12/16/99	15.87	457.17	--	--	--
	10/24/00	15.82	457.22	--	--	--
	02/15/01	15.72	457.32	9.6	**12.3**	--
	05/21/01	16.07	456.97	14.2	**7.86**	--
	08/21/01	16.46	456.58	12.2	4.63J	--
	11/13/01	15.86	457.18	13.5	**9.74**	--
	02/05/02	16.31	456.73	14.9	**9.45**	--
	05/16/02	16.08	456.96	12.1	**7.12**	--
	08/06/02	16.02	457.02	11.1	3.25	--
	11/12/02	15.76	457.28	12.2	**9.41J**	--
	09/13/04	15.65	457.39	--	**16.5**	--
	03/18/05	15.75	457.29	--	**11.4J**	--
	09/08/05	15.78	457.26	--	2.05	--
	03/02/06	15.62	457.42	--	**27.7**	--
	09/28/06	15.69	457.35	--	3.69	--
	03/27/07	15.63	457.41	--	**7.50**	--
	09/26/07	15.73	457.31	--	2.70	--
	04/04/08	13.36	459.68	12.0	**7.50**	--
	09/17/08	15.67	457.37	--	0.41	--
	03/24/09	15.83	457.21	--	5.50	--
	10/14/09	15.71	457.33	--	0.85J	--
	12/23/09 D	15.75	457.29	--	**7.9** / 6.8	--
	03/10/10	15.73	457.31	--	**8.4**	--
	06/24/10	15.91	457.13	--	0.44J	--
	09/21/10	15.54	457.50	--	0.482	--
	12/16/10	15.50	457.54	--	0.567	--
	03/30/11	15.70	457.34	--	<0.40	--
	09/29/11	15.79	457.25	--	--	--
	03/14/12	15.83	457.21	--	--	--
	09/25/12	16.67	456.37	--	--	--
	03/12/13	15.78	457.26	--	--	--
	11/16/13	15.61	457.43	--	--	--
	04/09/14	15.90	457.14	--	--	--
	10/27/14	15.62	457.42	--	--	--
	05/01/15	15.98	457.06	--	--	--
	06/06/16	16.02	457.02	--	--	--
	06/20/17	15.91	457.13	--	--	--

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3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-8	06/25/18	16.05	456.99	--	--	--
(cont.)	06/03/19	15.88	457.16	--	--	--
	09/22/20	Well Decommissioned				
MW-9	01/15/99	Dry	--	17.4	--	--
477.16	02/23/99	Dry		--	--	--
	03/16/99	Dry	--	--	--	--
	04/13/99	Dry	--	--	--	--
	05/05/99	Dry	--	--	--	--
	06/16/99	Dry	--	--	--	--
	07/12/99	Dry	--	--	--	--
	08/18/99	Dry	--	--	--	--
	09/20/99	Dry	--	--	--	--
	10/13/99	Dry	--	--	--	--
	11/16/99	Dry	--	--	--	--
	12/16/99	Dry	--	--	--	--
	10/24/00	Well Decommissioned				
MW-10	01/15/99	22.24	460.86	14.6	<1.00	--
483.10	02/23/99	22.33	460.77	--	--	--
	03/16/99	22.39	460.71	--	--	--
	04/15/99	22.48	460.62	**26.7**	<2.00	--
	05/05/99	22.52	460.58	--	--	--
	06/16/99	22.54	460.56	--	--	--
	07/12/99	22.54	460.56	13.7	<2.00	--
	08/18/99	22.47	460.63	--	--	--
	09/20/99	22.48	460.62	--	--	--
	10/13/99	22.35	460.75	**18.4**	--	--
	11/17/99	22.22	460.88	--	<2.26	--
	12/16/99	22.22	460.88	--	--	--
	10/24/00	22.31	460.79	--	--	--
	02/15/01	22.41	460.69	13.1	<2.00	--
	05/22/01	22.69	460.41	12.8	<2.00	--
	08/22/01	22.84	460.26	13.1	<2.00	--
	11/14/01	22.21	460.89	15.9	<2.00	--
	02/05/02	22.61	460.49	14.3	<2.00	--
	05/17/02	22.66	460.44	11.4	<2.27	--
	08/07/02	22.58	460.52	11.8	<2.00	--
	11/12/02	22.19	460.91	13.5	<2.00	--
	09/13/04	21.96	461.14	--	--	--
	03/18/05	22.17	460.93	--	--	--
	09/07/05	22.09	461.01	--	--	--
	03/01/06	22.06	461.04	--	--	--
	09/27/06	21.95	461.15	--	--	--
	03/27/07	22.04	461.06	--	--	--
	09/11/07	21.97	461.13	--	--	--
	04/04/08 D	19.80	463.30	12 / 13	--	--
	09/16/08	21.95	461.15	--	--	--
	03/24/09	22.14	460.96	--	--	--
	10/14/09	21.85	461.25	--	--	--
	12/23/09	21.81	461.29	--	--	--
	03/10/10	22.00	461.10	--	--	--
	06/24/10	22.13	460.97	--	--	--
	09/20/10	21.51	461.59	--	--	--
	12/15/10	21.40	461.70	--	--	--
	03/29/11	21.85	461.25	--	--	--
	09/29/11	21.78	461.32	--	--	--
	03/14/12	25.44	457.66	--	--	--
	09/25/12	21.52	461.58	--	--	--
	03/12/13	21.79	461.31	--	--	--
	11/16/13	21.43	461.67	--	--	--
	04/09/14	21.98	461.12	--	--	--
	10/27/14	21.61	461.49	--	--	--
	05/01/15	22.08	461.02	--	--	--

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3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date		Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level					**17.7**[a]	**7**[b]	**NE**
MW-10	06/06/16		22.15	460.95	--	--	--
(cont.)	06/20/17		22.09	461.01	--	--	--
	06/25/18		22.13	460.97	--	--	--
	06/03/19		22.08	461.02	--	--	--
	09/24/20		--	--	--	--	--
MW-11	01/15/99		--	--	--	--	--
472.92	02/23/99		18.05	454.87	--	--	--
	03/16/99		20.79	452.13	--	--	--
	04/13/99		20.93	451.99	--	--	--
	05/05/99		20.93	451.99	--	--	--
	06/16/99		20.97	451.95	--	--	--
	07/12/99		21.03	451.89	--	--	--
	08/18/99		20.95	451.97	--	--	--
	09/20/99		20.92	452.00	--	--	--
	10/13/99		20.78	452.14	--	--	--
	11/16/99		20.60	452.32	--	--	--
	12/16/99		20.65	452.27	--	--	--
	10/24/00		20.73	452.19	--	--	--
	02/15/01		20.52	452.40	--	--	--
	05/21/01		21.18	451.74	--	--	--
	09/21/10	D	21.12	451.80	11.3 / 11.1	--	--
	12/15/10		20.74	452.18	--	--	--
	09/21/20		Well Decommissioned				
MW-12	02/23/99		16.27	456.73	--	--	--
473.00	03/16/99		16.51	456.49	--	--	--
	04/13/99		16.61	456.39	--	--	--
	05/05/99		16.59	456.41	--	--	--
	06/16/99		16.56	456.44	--	--	--
	07/12/99		16.59	456.41	--	--	--
	08/18/99		16.42	456.58	--	--	--
	09/20/99		16.59	456.41	--	--	--
	10/13/99		16.44	456.56	--	--	--
	11/16/99		16.32	456.68	--	--	--
	12/16/99		16.35	456.65	--	--	--
	10/24/00		16.32	456.68	--	--	--
	02/15/01		16.04	456.96	--	--	--
	05/21/01		16.67	456.33	--	--	--
	09/21/10		16.32	456.68	10.7	--	--
	12/15/10		16.29	456.71	--	--	--
	09/22/20		Well Decommissioned				
MW-13	10/24/00		30.55	458.40	--	--	--
488.95	02/15/01		30.82	458.13	--	--	--
	05/21/01		31.22	457.73	--	--	--
	09/21/10		30.30	458.65	10.9	--	--
	12/15/10		30.19	458.76	--	--	--
	09/22/20		Well Decommissioned				
MW-14	10/25/00		19.98	450.21	**40.0**	<2.00	--
470.19	02/15/01		19.78	450.41	**33.7**	<2.00	--
	05/21/01		20.37	449.82	**42.2**	<2.00	--
	08/21/01		20.69	449.50	**47.4**	<2.00	--
	11/14/01		19.91	450.28	**48.7**	<2.00	--
	02/05/02		20.27	449.92	**40.6**	<2.00	--
	05/16/02		20.53	449.66	**43.5**	<2.00	--
	08/06/02		20.55	449.64	**48.9**	<2.00	--
	11/12/02		19.60	450.59	**48.7**	<2.00	--
	09/14/04		19.91	450.28	**52.7**	--	--
	03/18/05		19.92	450.27	**43.3**	--	--
	09/08/05		20.25	449.94	**53.2**	<2.00	--
	03/02/06		19.63	450.56	**26.8**	--	--
	09/28/06		20.07	450.12	**59.5**	<1.89	--
	03/27/07		20.01	450.18	**34.0**	--	--

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-14	09/26/07	20.37	449.82	**50.0**	<0.022	--
(cont.)	04/04/08	17.46	452.73	**33.0**	--	--
	09/17/08	20.37	449.82	**56.0**	0.06	--
	03/24/09	20.24	449.95	**39.0**	--	--
	10/14/09	20.63	449.56	**58.4**	<0.25	--
	12/23/09	20.55	449.64	--	--	--
	03/11/10	20.61	449.58	**40.0**	<0.12	--
	06/24/10	20.99	449.20	--	--	--
	09/21/10	20.68	449.51	**52.1**	0.370 J	--
	12/15/10	20.10	450.09	--	--	--
	03/30/11	20.66	449.53	**31.2**	<0.40	--
	09/29/11	21.03	449.16	**48.9**	--	--
	03/14/12	21.00	449.19	**46.3**	--	--
	09/25/12	20.77	449.42	**49.2**	--	2.83
	03/12/13	20.73	449.46	**37.0**	--	2.10
	11/16/13	20.48	449.71	**40.1**	--	2.37
	04/10/14	21.22	448.97	**35.6**	--	2.78
	10/27/14	20.89	449.30	**31.8**	--	2.40
	05/01/15	21.58	448.61	**29.8**	--	4.56
	06/06/16	21.55	448.64	**33**	--	5.5
	06/20/17	21.61	448.58	**33.5**	--	3.00
	06/25/18	21.86	448.33	**41.7**	--	2.04
	06/03/19	21.70	448.49	**35.5**	--	1.34
	09/23/20	21.73	448.46	**40.7**	--	--
MW-15	02/16/01	28.60	448.05	17.3	<2.00	--
476.65	05/21/01	29.54	447.11	16.7	<2.00	--
	08/22/01	29.55	447.10	16.6	<2.00	--
	11/13/01	28.79	447.86	16.6	<2.00	--
	02/04/02	29.01	447.64	17.5	<2.00	--
	05/17/02	30.07	446.58	16.9	<2.00	--
	08/07/02	29.84	446.81	17.4	<2.00	--
	11/12/02	28.55	448.10	17.1	<2.00	--
	09/13/04	28.85	447.80	--	--	--
	03/18/05	28.99	447.66	--	--	--
	09/07/05	29.44	447.21	--	--	--
	03/01/06	28.68	447.97	--	--	--
	09/27/06	28.98	447.67	--	--	--
	03/27/07	28.89	447.76	--	--	--
	09/11/07	29.27	447.38	--	--	--
	04/04/08	27.26	449.39	**34.0**	--	--
	09/16/08	29.23	447.42	--	--	--
	03/24/09	29.15	447.50	--	--	--
	10/14/09	29.48	447.17	--	--	--
	12/23/09	29.37	447.28	--	--	--
	03/10/10	29.57	447.08	--	--	--
	06/24/10	30.00	446.65	--	--	--
	09/20/10	29.29	447.36	--	--	--
	12/15/10	28.79	447.86	--	--	--
	03/29/11	29.58	447.07	--	--	--
	09/29/11	29.74	446.91	--	--	--
	03/14/12	29.86	446.79	--	--	--
	09/25/12	29.41	447.24	--	--	--
	03/12/13	29.48	447.17	**41.0**	--	2.20
	11/16/13	28.91	447.74	**30.8**	--	2.47
	04/10/14	30.12	446.53	**24.7**	--	2.92
	10/27/14	29.52	447.13	**22.4**	--	2.61
	05/01/15	30.44	446.21	**21.6**	--	4.43
	06/06/16	30.44	446.21	**32**	--	5.6
	06/20/17	30.51	446.14	**66.9**	--	3.78
	06/25/18	30.55	446.10	**70.3**	--	2.75

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date		Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level					**17.7[a]**	**7[b]**	**NE**
MW-15	06/03/19		30.62	446.03	**65.9**	--	1.89
(cont.)	09/23/20		30.54	446.11	**42.5**	--	--
MW-16	09/14/04		22.37	451.27	15.4	<2.00	--
473.64	03/18/05		22.39	451.25	16.5	<2.00	--
	09/08/05		22.63	451.01	14.2	<2.00	--
	03/01/06		22.64	451.00	14.6	<1.90	--
	09/28/06		22.57	451.07	14.3	<1.89	--
	03/27/07		22.51	451.13	17.0	0.66	--
	09/11/07		22.77	450.87	15.0	<0.022	--
	04/03/08		20.15	453.49	16.0	<0.022	--
	09/17/08		22.81	450.83	13.0	<0.022	--
	03/24/09		22.77	450.87	17.0	0.11	--
	10/14/09		23.05	450.59	14.6	<0.25	--
	12/23/09		22.93	450.71	--	<0.12	--
	03/11/10		22.93	450.71	**20.6**	<0.12	--
	06/24/10		23.25	450.39	12.1	--	--
	09/21/10		22.99	450.65	16.5	--	--
	12/16/10		22.50	451.14	**17.7**	--	--
	03/30/11		23.13	450.51	**19.5**	<0.40	--
	09/29/11	D	23.47	450.17	**18.9 / 19.6**	--	--
	03/14/12		21.00	452.64	**19.4**	--	--
	09/25/12		23.04	450.60	**18.4**	--	2.97
	03/12/13		23.08	450.56	**21.0**	--	2.00
	11/16/13		22.90	450.74	--	--	--
	04/09/14		23.45	450.19	**21.2**	--	4.04
	10/27/14		23.22	450.42	15.3	--	2.29
	05/01/15		23.79	449.85	**17.9**	--	4.29
	06/06/16		23.86	449.78	**19**	--	5.6
	06/20/17		23.90	449.74	**21.1**	--	3.36
	06/25/18		24.13	449.51	**23.8**	--	2.15
	06/03/19		23.92	449.72	**20.5**	--	1.51
	09/23/20		23.95	449.69	**19.9**	--	--
MW-17	09/14/04		19.77	446.60	**38.1**	--	--
466.37	03/18/05		19.66	446.71	**39.7**	--	--
	09/08/05		20.16	446.21	**31.4**	--	--
	03/02/06		19.43	446.94	**35.9**	--	--
	09/28/06		20.01	446.36	**31.6**	--	--
	03/27/07		19.94	446.43	**40.0**	--	--
	09/11/07		20.37	446.00	**33.0**	--	--
	04/03/08		20.29	446.08	**32.0**	--	--
	09/17/08		20.46	445.91	**25.0**	--	--
	03/24/09		20.28	446.09	**35.0**	--	--
	10/14/09		20.77	445.60	**25.5**	--	--
	12/23/09		20.72	445.65			
	03/11/10		20.74	445.63	**29.5**	--	--
	06/24/10		21.12	445.25			
	09/21/10		20.70	445.67	**33.5**	--	--
	12/15/10		20.30	446.07			
	03/30/11		20.73	445.64	**19.4**	--	--
	09/29/11		21.39	444.98	**39.1**	--	--
	03/14/12		21.18	445.19	**32.5**	--	--
	09/25/12		20.93	445.44	**35.8**	--	3.22
	03/12/13		20.89	445.48	**35.0**	--	2.90
	11/16/13		20.66	445.71	**37.9**	--	2.40
	04/09/14		21.46	444.91	**35.8**	--	2.53
	10/27/14		21.15	445.22	**29.8**	--	2.33
	05/01/15		21.80	444.57	**26.5**	--	4.39
	06/06/16		21.78	444.59	**32**	--	4.0
	06/20/17		21.89	444.48	**33.5**	--	3.35
	06/25/18		Unable to locate well				
	06/03/19						
	09/23/20		22.16	Dry			

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-18	04/04/08	27.70	461.33	12	--	--
489.03	09/16/08	27.47	461.56	--	--	--
	03/24/09	27.69	461.34	--	--	--
	10/14/09	27.38	461.65	--	--	--
	12/23/09	27.36	461.67	--	--	--
	03/10/10	27.57	461.46	--	--	--
	06/24/10	27.67	461.36	--	--	--
	09/20/10	27.05	461.98	--	--	--
	12/15/10	26.92	462.11	--	--	--
	03/29/11	27.37	461.66	--	--	--
	09/29/11	27.47	461.56	--	--	--
	03/14/12	27.50	461.53	--	--	--
	09/25/12	27.02	462.01	--	--	--
	03/12/13	27.33	461.70	--	--	--
	11/16/13	26.95	462.08	--	--	--
	04/09/14	27.51	461.52	--	--	--
	10/27/14	27.15	461.88	--	--	--
	05/01/15	27.58	461.45	--	--	--
	06/06/16	27.66	461.37	--	--	--
	06/20/17	27.55	461.48	--	--	--
	06/25/18	27.65	461.38	--	--	--
	06/03/19	27.62	461.41	--	--	--
	09/23/20	--	--	--	--	--
MW-19	04/03/08	20.03	459.64	**67.0**	--	--
479.67	09/16/08	20.13	459.54			
	03/24/09	20.02	459.65			
	10/14/09	19.86	459.81	**95.8**	--	--
	12/23/09	19.80	459.87			
	03/10/10	19.93	459.74	**64.1**	--	--
	06/24/10	20.02	459.65			
	09/21/10	19.56	460.11	**106**	--	--
	12/15/10	19.44	460.23	--	--	--
	03/30/11	19.72	459.95	**80.5**	--	--
	09/29/11	19.73	459.94	**96.1**	--	--
	03/14/12	19.93	459.74	--	--	--
	09/25/12	19.59	460.08	**70.9**	--	2.50
	03/12/13	19.78	459.89	**53.0**	--	1.90
	11/16/13	19.53	460.14	**35.4**	--	2.80
	04/10/14	19.95	459.72	**30.8**	--	2.48
	10/27/14	19.65	460.02	**34.3**	--	2.14
	05/01/15	20.00	459.67	**49.7**	--	3.88
	06/06/16	20.11	459.56	**60**	--	5.6
	06/20/17	19.95	459.72	**87.6**	--	3.25
	06/25/18	20.08	459.59	**62.2**	--	2.18
	06/03/19	19.95	459.72	**69.0**	--	1.50
	09/23/20	19.81	459.86	**42.7**	--	--
MW-20	04/04/08	17.41	457.86	**27.0**	--	--
475.27	09/16/08	17.32	457.95	--	--	--
	03/24/09	17.42	457.85	--	--	--
	10/14/09	17.33	457.94	--	--	--
	12/23/09	17.33	457.94	--	--	--
	03/10/10	17.36	457.91	--	--	--
	03/10/10	17.53	457.74	--	--	--
	09/20/10	17.16	458.11	--	--	--
	12/15/10	16.93	458.34	--	--	--
	03/29/11	17.25	458.02	--	--	--
	09/29/11	17.33	457.94	--	--	--
	03/14/12	17.45	457.82	--	--	--
	09/25/12	17.18	458.09	**27.9**	--	2.54
	03/12/13	17.26	458.01	**31.0**	--	1.90
	11/16/13	17.05	458.22	**30.4**		1.86
	04/10/14	17.46	457.81	**27.2**	--	2.53

TABLE 3
HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA
Nutrien Ag Solutions, Inc.
3482 Glade Road North
Pasco, WA

Well ID and TOC Elevation (ft amsl)	Sample Date	Depth to Groundwater Below Top of Casing (feet)	Groundwater Elevation (ft amsl)	Nitrate-N (mg/L)	Dinoseb (µg/L)	TOC (mg/L)
Established Regulatory Cleanup Level				**17.7[a]**	**7[b]**	**NE**
MW-20 (cont.)	10/27/14	17.19	458.08	**21.4**	--	2.12
	05/01/15	17.62	457.65	**21.6**	--	1.85
	06/06/16	17.65	457.62	**24**	--	5.4
	06/20/17	17.48	457.79	**31.2**	--	3.31
	06/25/18	17.64	457.63	**32.8**	--	2.03
	06/03/19	17.52	457.75	**38.9**	--	1.42
	09/23/20	17.43	457.84	**28.9**	--	--
IW-01 470.18	05/01/15	15.03	455.15	--	--	--
	06/06/16	15.10	455.08	--	--	--
	06/20/17	15.04	455.14	--	--	--
	06/25/18	15.22	454.96	--	--	--
	06/03/19	14.98	455.20	--	--	--
	09/21/20	Well Decommissioned				
IW-02 470.15	05/01/15	15.05	455.10	--	--	--
	06/06/16	15.11	455.04	--	--	--
	06/20/17	14.97	455.18	--	--	--
	06/25/18	15.16	454.99	--	--	--
	06/03/19	14.93	455.22	--	--	--
	09/21/20	Well Decommissioned				
DR-01 470.16	10/14/13	16.90	453.26	**29.1**	--	1.02
	11/16/13	14.96	455.20	11.6	--	168.00
	04/09/14	15.26	454.90	**31.6**	--	3.18
	05/01/15	15.53	454.63	**26.0**	--	4.14
	06/06/16	15.39	454.77	**27**	--	5.9
	06/20/17	15.20	454.96	**31.8**	--	3.82
	06/25/18	15.51	454.65	**35.3**	--	3.08
	06/03/19	15.25	454.91	**35.6**	--	2.11
	09/21/20	Well Decommissioned				

Notes:
ft amsl = Feet above mean sea level
-- = Not measured / not analyzed
mg/L = Milligrams per liter
µg/L = Micrograms per liter
Bold = values that exceed the established regulatory cleanup level
UJ = Estimated value because surrogate recoveries were outside of the established quality control limits
J = Estimated value
NE = Not Established
D = Duplicate sample
a = Site specific cleanup level
b = Washington State Department of Ecology Model Toxics Control Act Method B cleanup level

Analytical Methods:
Nitrate-N = Nitrate as nitrogen (-N). Analyzed by EPA Methods 300.0, 353.2, or 353.3. Since 2013 nitrate-N reported as nitrate-N + nitrite-N.
Dinoseb = by EPA Method 8151A
TOC = Total Organic Carbon by Standard Method 5310B/C or EPA 415.1

APPENDIX A

ASPHALT CAP OVERLAY

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

Rubik
320 Flint Street
Reno, Nevada 89501
(775) 622-0857

Nutrient Pasco Facility, WA
Cap Overlay – September 2020

Three Former Helicopter Pads

Former Office

Former wash pad near the north east corner of the property

Former Gasoline UST Area

21-0-0-7 Fertilizer Spill Area

APPENDIX B

FRANKLIN COUNTY CONSTRUCTION PERMIT

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

Contractor's Work Order # _____

PERMISSION TO CONSTRUCT

Upon the condition, stipulations, and considerations hereinafter stated, permission is hereby granted by Franklin County to NUTRIEN AG SOLUTIONS, INC. of Kathleen Bergholm 208.390.4097 Kathleen.Bergholm@nutrien.com to construct MONITORING WELLS across AND ALONG WEST HALF OF GLADE NORTH ROAD AND EAST HALF OF N. RAILROAD ROAD located SEE ATTACHED SITE PLAN FOR LIMITS OF CONSTRUCTION of Section 25, Township 10 North, Range 29 E.W.M., as per provision numbers.

Contractor's Name and Phone# RON RIDER 253-883-5200 EXT. 2007, rrider@cascade-env.com

PROVISIONS:

✓ 1. Proper signs, barricades, flagmen, lights, or flares will be maintained as specified in the Manual on Uniform Traffic Control Devices.
✓ 2. A minimum of one-way traffic shall be maintained during all operations.
___ 3. A detour will be maintained.
✓ 4. Access will be made available to property owner(s) along the road.
___ 5. The crossing will be made by boring under the roadway and any damage to the roadway will be the responsibility of the holder of this permit.
___ 6. Before excavation the pavement shall be cut to neat lines and all repairs made on neat straight lines perpendicular to the center line of the road.
✓ 7. Under no condition will the paved roadway surface or curb and gutter sections be cut or disturbed.
✓ 8. No excavation shall be left open over night.
___ 9. The top of the pipe, conduit, or cable is to be at least four feet below the roadway surface.
___ 10. The top of the pipe, conduit, or cable is to be at least ____ feet below the roadway surface.
✓ 11. Backfill will be well compacted using a mechanical tamper.
___ 12. The top 16 inches of backfill will consist of compacted layers of the following materials: 2 inch minus ballast; 2 layers each 4 inches thick, a total of 8 inches; top course 5/8 minus, 1 layer 4 inches thick, and asphaltic concrete, 2 layers each 2 inches thick, a total of 4 inches.
___ 13. The top 10 inches of backfill will consist of compacted layers of the following materials: top course 5/8 minus, 2 layers each 3 inches thick, a total of 6 inches; and asphaltic concrete, 2 layers each 2 inches thick, a total of 4 inches.
___ 14. Gravel road backfill will consist of top course 5/8 minus, 1 layer 4 inches thick.
✓ 15. All excess excavated material shall be hauled away and disposed of.
✓ 16. Backfill material shall consist of clean native material granular material compacted in layers not to exceed 6 inches.
✓ 17. The roadway will be returned to a state of good repair.
✓ 18. The shoulders will be repaired and re-graveled and the holder of this permit shall dispose of any excess materials.
___ 19. The cable or pipe is to be sleeved when crossing road.
✓ 20. Cable or pipe is to be kept in outside 5 feet of right-of-way.
✓ 21. There is a $ *0.00* deposit in the County Engineer's Office ~~to insure the asphalt surface of the roadway is properly patched. If this is not satisfactorily completed within 30 days from the date of this permit, the deposit will be forfeited.~~
✓ 22. Construction will be done in accordance with provisions set forth in Resolution No. ***2000-330*** .
✓ 23. The County Road Engineer's Office shall be notified prior to any work.
✓ 24. 48 hours before any excavation will start; the grantee will call 811 for location of underground utilities.
___ 25. The ACP/BST surface of the roadway shall be properly patched before ***AS SOON AS PRACTICAL*** .
___ 26. All ACP/BST surface roads must be patched the same day work is done.

Comments:

-Condition 21 should read "There is no deposit to be provided by the applicant for construction inspection services to be provided by Franklin County Public Works.", however a record of time spent on the inspection, preliminary review, and any time utilized working on this project by Franklin County Engineering staff will be directly billed to applicant.
-Notification to County inspector required for any work conducted within the right of way. Contractor shall meet the requirements and conditions of the approved construction plans.

THE GRANTEE DOES HEREBY AGREE AND UNDERTAKE TO CONSTRUCT AND MAINTAIN THE WORKS OR SUBJECT MATTER HEREIN REFERRED TO INSUCH A MANNER AS TO ABSOLUTELY PROTECT ALL USERS OF THE HIGHWAY UPON WHICH THE SAME IS CONSTRUCTED OR MAINTAINED AND DOES HEREBY AGREE AND UNDERTAKE TO INDEMNIFY AND SAVE HARMLESS FRANKLIN COUNTY OR ITS OFFICERS, AGENTS, OR SERVANTS FROM ALL SUITS ACTIONS, CLAIMS, OR PROCEEDINGS OF EVERY NAME OR DESCRIPTION IN LAW OR IN EQUITY BROUGHT AGAINST FRANKUN COUNTY, ITS OFFICERS, AGENTS, OR SERVANTS FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED BY ANY PERSON . STRUCTURE, OR PROPERTY BY REASON OF OR INCIDENTAL TO THE CONSTRUCTION AND MAINTENANCE OF THE WORKS OR SUBJECT MATTER HEREIN REFERRED TO.

IT IS EXPRESSLY UNDERSTOOD BY THE SAID GRANTEE THAT THE PERMISSION HEREIN GRANTED IS NOT A PERMANENT OR PERPETUAL PERMISSION. EASEMENT, OR FRANCHISE. BUT THAT THE PERMISSION HEREIN GRANTED IS A PERMISSION BY SUFFERANCE ONLY AND THAT FRANKLIN COUNTY RESERVES THE RIGHT IN THE GRANTING OF THIS PERMISSION TO AT ANY TIME AND FOR ANY REASON REVOKE AND TERMINATE THE SAME AND TO REMOVE THE WORKS OR SUBJECT MATTER HEREIN REFERRED TO AT ANY TIME AT THE COST OF SAID GRANTEE.

THE CONSTRUCTION AND MAINTENANCE OF THE WORKS OR SUBJECT MATTER HEREIN REFERRED TO SHALL, AT ALL TIMES, BE SUBJECT TO THE APPROBATION AND APPROVAL OF THE COUNTY ENGINEER OF FRANKUN COUNTY.

THIS PERMIT IS SUBJECT TO APPLICABLE LAWS AND IT IS THE PERMITTEE'S RESPONSIBILITY TO RESEARCH AND VERIFY RIGHT-OF-WAY BEFORE INSTALLATION.

Date: 9/14/2020

Accepted:

Katy Bergholm
Signature

Katy Bergholm
Print Name

THIS PERMIT EXPIRES _____
or in 6 months if not noted

Franklin County Public Works Department
3416 Stearman Avenue
Pasco, WA 99301 (509)545-3514

Craig Erdman P.E.
County Road Engineer

BY _____
Robert B. Mendez
ASSOCIATE ENGINEER

Copy 1 - Franklin County Public Works Department Copy 2 – Utilities

APPENDIX C

UIC CLOSURE FORM

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

Injection Well Closure Notification

DEPARTMENT OF ECOLOGY
State of Washington

Please send completed form to: UIC Coordinator, Water Quality Program, WA Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600

A Facility: Nutrien Ag Solutions, Inc (Formerly Crop Production Services) UIC site ID: _____

Address: 3482 Glade Road North City: Pasco

Zip: 99301 County: Franklin Phone: 509-547-9771

Township: 10N Range: 29E Section: 25 ¼ Section: NW

Latitude: 46.322392 Longitude: -119.120981

Other: _____

B. Contact Information

Well Owner:

Name Katy Bergholm.

Organization Nutrien Ag Solutions, Inc

Address: 5296 Harvest Lake Drive

City Loveland State CO ZIP 80538

Phone: 208-547-1881

Email kathleen.bergholm@nutrien.com

1C. Property owner: Same as Well Owner ☒

Name Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

Email _____

Technical Contact Person, if applicable (Engineer, contractor, consultant)

Name: Casandra Woodward

Organization: Rubik Environmental, Inc.

Address: 320 Flint Street

City: Reno State: NV Zip: 89501

Phone: 775-622-0857

Email cwoodward@rubikenv.com

To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

D. **Was this site ever a toxic cleanup site?** ☒ Yes ☐ No

Table 1 – Complete for all wells

	1	2	3	4	5	6	7
Owner Well ID name or number	RAA 2A 1	RAA 2A 2	RAA 4B 1	RAA 4B 2	RAA 4B 3	RAA 4B 4	RAA 4B 5
Latitude (decimal format)	46.323244	46.323244	46.322317	46.322317	46.322317	46.322317	46.322317
Longitude (decimal format)	-119.121421	-119.121421	-119.122302	-119.122302	-119.122302	-119.122302	-119.122302
Construction date (approx. year if unknown)	04/2012	04/2012	04/2012	04/2012	04/2012	04/2012	04/2012
Closure date (approx. year if unknown)	09/2020	09/2020	09/2020	09/2020	09/2020	09/2020	09/2020
UIC construction type[1]	IT	IT	IT	IT	IT	IT	IT
EPA well type[2] (see table below)	5X26	5X26	5X26	5X26	5X26	5X26	5X26
Depth of UIC well	15	15	15	15	15	15	15
Is this UIC well an imminent public health hazard? If yes, notify Ecology 30 days before closing the well.	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
Is this UIC well constructed into an aquifer? If yes, meet WAC 173-160[3]. If no, meet WAC 173-218-120[4].	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

[1]**Well Construction Type Abbreviations**: DW - Drywell; DF – Drainfield; IT - Infiltration Trench with Perforated Pipe, O - Other (describe)

[2] **EPA Class V Well Types**

5A19 Cooling water return	5A6 Geothermal heat	5W11 Septic system (general)	5A7 Closed loop heat pump return
5D2 Stormwater	5R21 Aquifer recharge	5W20 Industrial process water	5X26 Aquifer remediation
5D4 Industrial storm runoff	5W9 Untreated sewage	5W31 Septic system (well disposal)	5X27 Other wells
5G30 Special drainage water	5W10 Cesspool	5W32 Septic system (drainfield)	5X28 Motor vehicle waste

[3] **Chapter 173-160 WAC** Minimum Standards for Construction and Maintenance of Wells, found at http://www.ecy.wa.gov/biblio/wac173160.html.

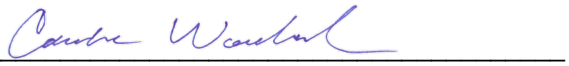
[4] **Chapter 173-218-120,** WAC Underground Injection Control Program, Decommissioning a UIC well, found at http://www.ecy.wa.gov/biblio/wac173218.html.

To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

A. Signature of authorized representative

I hereby certify that the information contained in this registration is true and correct to the best of my knowledge.

Casandra Woodward
Name of legally authorized representative



Signature of legally authorized representative

Hydrologist
Title

20201109
Date

For Department Use Only	
Site ID:	
Date received:	
Date acknowledged:	
Date Entered:	
Final Disposition:	

For questions, call Mary Shaleen-Hansen at 360-407-6143 or e-mail can be sent to maha461@ecy.wa.gov.

To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Well Closure Registration Form Instructions

A. **Facility Name and Location**

- Provide the name, address and phone number of the facility where the UIC wells are or will be located.

B. **Contact Information**

- Well Owner: Provide the owner of the wells, organization, address and phone number.
- Property Owner: Complete if different then the Well owner
- Technical Contact: Complete if different then the Well owner

C. **Original Registration**

- Supply the UIC site number from original registration (if available).

D. If the site has been an independent clean up site or a site under the supervision of the Model Toxic Control Act Program, select yes. If not, select no.

E. **UIC Well information**

- Page 1 -
  To enter a well, populate the following text boxes and drop down lists, then click on the Add link to the right of the table. The well will then be added to the table above. The following items need to be populated in order to add the well:
  - Owners ID: Provide your well identification name or number.
  - Construction Date: Provide the approximate date the well was installed. This date may be in the following formats: MM/DD/YYYY, MM/YYYY or YYYY.
  - Latitude and longitude: Enter the latitude and longitude in decimal form for each UIC well. Visit the Department of Health Interactive Map and type the address in at the bottom of the screen. Locational information including, latitude and longitude, will be found in a table below the map.
  - EPA well type: EPA well types are listed in the table 1 below.
  - Well depth: Provide the approximate well depth.

To edit or delete an existing well, click on the associated links on the right side of the screen. The record with either be removed from the table (Delete) or text boxes and drop down boxes will appear in the row. When you are finished making changes, click the Update link on the right side of the screen to save the changes.
You must have at least one well in the well information table to continue with the registration.

- Page 2 -
  To update the well information, click on the Edit link on the right side of the screen, then text boxes and drop down boxes will appear in the row. When you are finished making changes, click the Update link on the right side of the screen to save the changes. If you need to remove a well, click on the "Previous" button located at the bottom of the screen to move back a screen. The following items need to be populated in order to update the record:
  - Provide the Closure Date of well
  - Construction Type: Provide the well construction type.
  - To the best of your knowledge, is this UIC well an imminent public health hazard? If yes, notify Ecology 30 days before closing the well.
  - To the best of your knowledge, is this UIC well constructed into an aquifer? If yes, the well must meet Chapter 173-160 WAC Minimum Standards for Construction and Maintenance of Wells, found at http://www.ecy.wa.gov/biblio/wac173160.html. If no, the well must meet Chapter 173-218-120 WAC Underground Injection Control Program, Decommissioning a UIC well, found at http://www.ecy.wa.gov/biblio/wac173218.html.

F. **Submit Registration**

- Click on the "Submit" button to complete your registration. Please remember to sign your printed copy and mail it to the UIC Coordinator.

Injection Well Closure Notification

DEPARTMENT OF ECOLOGY
State of Washington

Please send completed form to: UIC Coordinator, Water Quality Program, WA Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600

A Facility: Nutrien Ag Solutions, Inc (Formerly Crop Production Services) UIC site ID: _____

Address: 3482 Glade Road North City: Pasco

Zip: 99301 County: Franklin Phone: 509-547-9771

Township: 10N Range: 29E Section: 25 ¼ Section: NW

Latitude: 46.322392 Longitude: -119.120981

Other: _____

B. Contact Information

Well Owner:

Name Katy Bergholm.

Organization Nutrien Ag Solutions, Inc

Address: 5296 Harvest Lake Drive

City Loveland State CO ZIP 80538

Phone: 208-547-1881

Email kathleen.bergholm@nutrien.com

1C. Property owner: Same as Well Owner ☒

Name Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

Email _____

Technical Contact Person, if applicable (Engineer, contractor, consultant)

Name: Casandra Woodward

Organization: Rubik Environmental, Inc.

Address: 320 Flint Street

City: Reno State: NV Zip: 89501

Phone: 775-622-0857

Email cwoodward@rubikenv.com

To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

D. **Was this site ever a toxic cleanup site?** ☒ Yes ☐ No

Table 1 – Complete for all wells

	1	2	3	4	5	6	7
Owner Well ID name or number	IW-01	IW-02					
Latitude (decimal format)	46.322317	46.322355					
Longitude (decimal format)	-119.122302	-119.123695					
Construction date (approx. year if unknown)	09/2013	9/2013					
Closure date (approx. year if unknown)	09/2020	09/2020					
UIC construction type[1]	IT	IT					
EPA well type[2] (see table below)	5X26	5X26					
Depth of UIC well	28	28					
Is this UIC well an imminent public health hazard? If yes, notify Ecology 30 days before closing the well.	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Is this UIC well constructed into an aquifer? If yes, meet WAC 173-160[3]. If no, meet WAC 173-218-120[4].	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

[1]**Well Construction Type Abbreviations**: DW - Drywell; DF – Drainfield; IT - Infiltration Trench with Perforated Pipe, O - Other (describe)

[2] **EPA Class V Well Types**

5A19 Cooling water return	5A6 Geothermal heat	5W11 Septic system (general)	5A7 Closed loop heat pump return
5D2 Stormwater	5R21 Aquifer recharge	5W20 Industrial process water	5X26 Aquifer remediation
5D4 Industrial storm runoff	5W9 Untreated sewage	5W31 Septic system (well disposal)	5X27 Other wells
5G30 Special drainage water	5W10 Cesspool	5W32 Septic system (drainfield)	5X28 Motor vehicle waste

[3] **Chapter 173-160 WAC** Minimum Standards for Construction and Maintenance of Wells, found at http://www.ecy.wa.gov/biblio/wac173160.html.

[4] **Chapter 173-218-120,** WAC Underground Injection Control Program, Decommissioning a UIC well, found at http://www.ecy.wa.gov/biblio/wac173218.html.

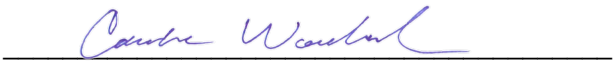
To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

A. Signature of authorized representative

I hereby certify that the information contained in this registration is true and correct to the best of my knowledge.

Casandra Woodward
Name of legally authorized representative

Hydrologist
Title


Signature of legally authorized representative

20201109
Date

For Department Use Only	
Site ID:	
Date received:	
Date acknowledged:	
Date Entered:	
Final Disposition:	

For questions, call Mary Shaleen-Hansen at 360-407-6143 or e-mail can be sent to maha461@ecy.wa.gov.

To ask about the availability of this document in a format for the visually impaired, call the Water Quality Program at 360-407-6404. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Well Closure Registration Form Instructions

A. **Facility Name and Location**

- Provide the name, address and phone number of the facility where the UIC wells are or will be located.

B. **Contact Information**

- Well Owner: Provide the owner of the wells, organization, address and phone number.
- Property Owner: Complete if different then the Well owner
- Technical Contact: Complete if different then the Well owner

C. **Original Registration**

- Supply the UIC site number from original registration (if available).

D. If the site has been an independent clean up site or a site under the supervision of the Model Toxic Control Act Program, select yes. If not, select no.

E. **UIC Well information**

- Page 1 -
  To enter a well, populate the following text boxes and drop down lists, then click on the Add link to the right of the table. The well will then be added to the table above. The following items need to be populated in order to add the well:
  - Owners ID: Provide your well identification name or number.
  - Construction Date: Provide the approximate date the well was installed. This date may be in the following formats: MM/DD/YYYY, MM/YYYY or YYYY.
  - Latitude and longitude: Enter the latitude and longitude in decimal form for each UIC well. Visit the Department of Health Interactive Map and type the address in at the bottom of the screen. Locational information including, latitude and longitude, will be found in a table below the map.
  - EPA well type: EPA well types are listed in the table 1 below.
  - Well depth: Provide the approximate well depth.

To edit or delete an existing well, click on the associated links on the right side of the screen. The record with either be removed from the table (Delete) or text boxes and drop down boxes will appear in the row. When you are finished making changes, click the Update link on the right side of the screen to save the changes.
You must have at least one well in the well information table to continue with the registration.

- Page 2 -
  To update the well information, click on the Edit link on the right side of the screen, then text boxes and drop down boxes will appear in the row. When you are finished making changes, click the Update link on the right side of the screen to save the changes. If you need to remove a well, click on the "Previous" button located at the bottom of the screen to move back a screen. The following items need to be populated in order to update the record:

  - Provide the Closure Date of well
  - Construction Type: Provide the well construction type.
  - To the best of your knowledge, is this UIC well an imminent public health hazard? If yes, notify Ecology 30 days before closing the well.
  - To the best of your knowledge, is this UIC well constructed into an aquifer? If yes, the well must meet Chapter 173-160 WAC Minimum Standards for Construction and Maintenance of Wells, found at http://www.ecy.wa.gov/biblio/wac173160.html. If no, the well must meet Chapter 173-218-120 WAC Underground Injection Control Program, Decommissioning a UIC well, found at http://www.ecy.wa.gov/biblio/wac173218.html.

F. **Submit Registration**

- Click on the "Submit" button to complete your registration. Please remember to sign your printed copy and mail it to the UIC Coordinator.

APPENDIX D

WELL DECOMMISSIONING LOGS

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62674**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **R017866**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Western Farm Services**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **NW** 1/4 **SE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

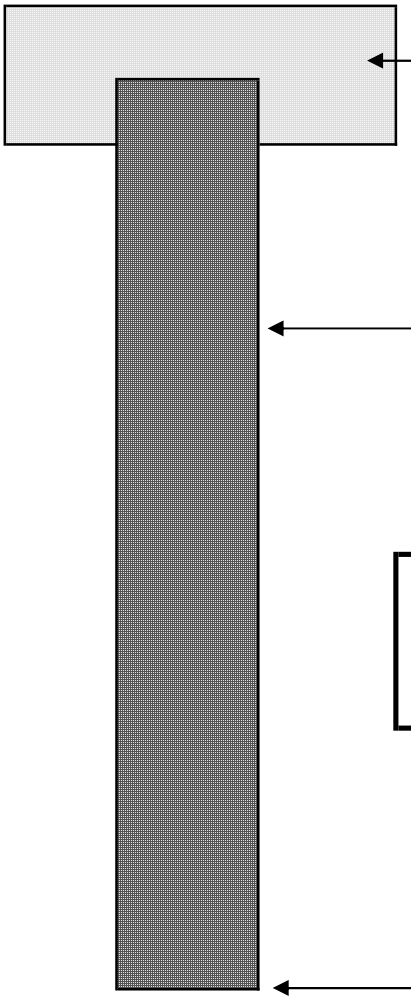
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **28** FT — **0** - FT — **Bentonite Chips**

DEPTH OF BORING **33** FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **ACP 653**

CLIENT WELL ID #: **MW-3**

Scale 1" =

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62676**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **RE043122**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm **Rubik Environmental**

Property Owner **Western Farm Service**

Site Address **3482 Glade Road North**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SW** 1/4 **SE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

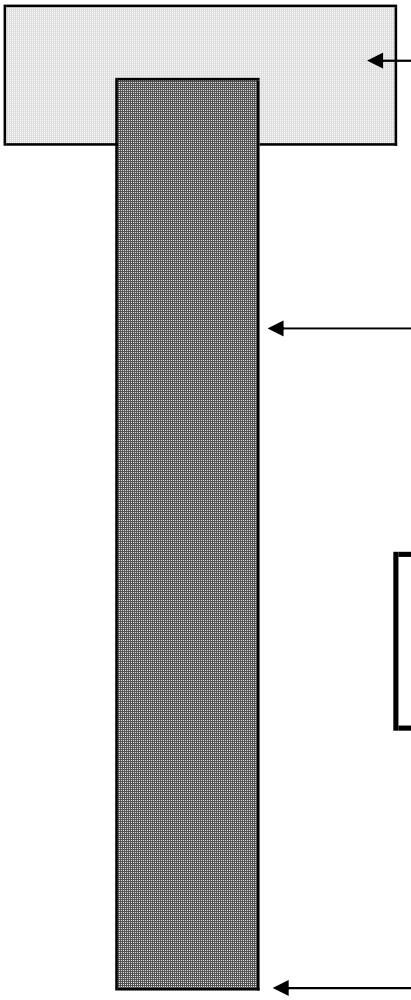
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **45** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **50** FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEK 283**

CLIENT WELL ID #: **MW-11**

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62676**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **RE043122**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm **Rubik Environmental**

Property Owner **Western Farm Service**

Site Address **3482 Glade Road North**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SW** 1/4 **SE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

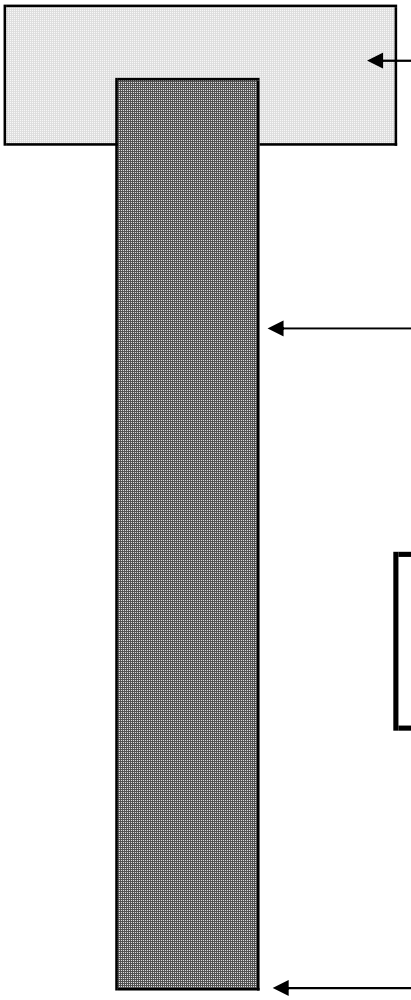
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **43** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **48** FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEK 284**

CLIENT WELL ID #: **MW-12**

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62672**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **R039233**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Western Farm Services**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SE** 1/4 **NE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

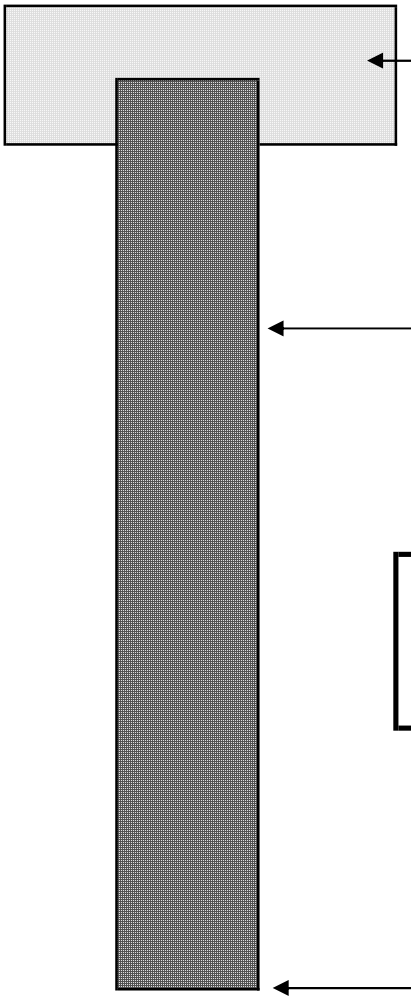
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design Well Data 110-20-1102 Formation Description



CONCRETE SURFACE SEAL **2** FT — **0** - FT — Chip in place 2" well

BACKFILL **18** FT — **0** - FT — **Bentonite Chips**

DEPTH OF BORING **20** FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEM 067**

CLIENT WELL ID #: **MW-8**

Scale 1" =

Page of

ECY 050-12 (Rec=v 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62672**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **R039233**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Western Farm Services**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SE** 1/4 **NE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

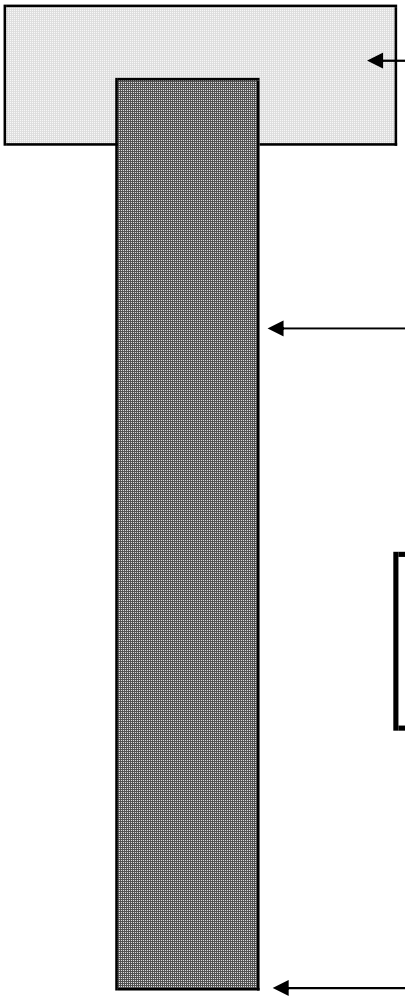
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **30** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **35** FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEM 069**

CLIENT WELL ID #: **MW-7**

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62672**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **R039233**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Western Farm Services**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SE** 1/4 **NE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

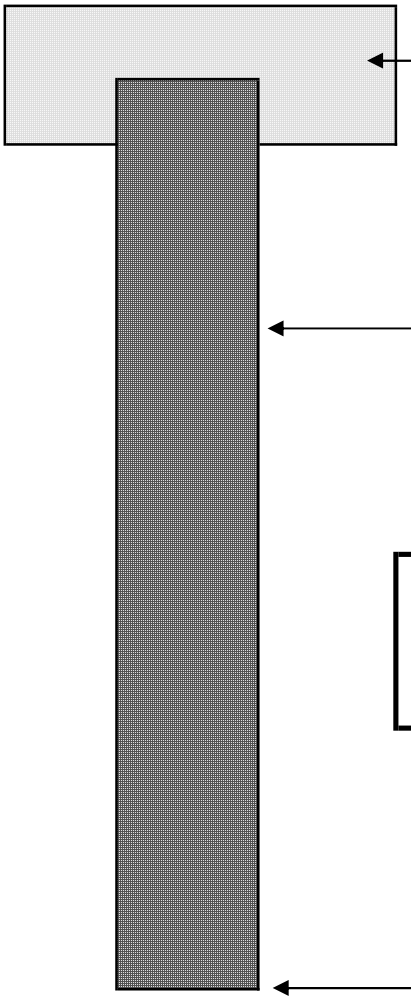
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design Well Data 110-20-1102 Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **30** FT — **0** - FT — **Bentonite Chips**

DEPTH OF BORING **35** FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEM 070**

CLIENT WELL ID #: **MW-6**

Scale 1" =

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62675**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **R043232**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Western Farm Services**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **SW** 1/4 **NE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

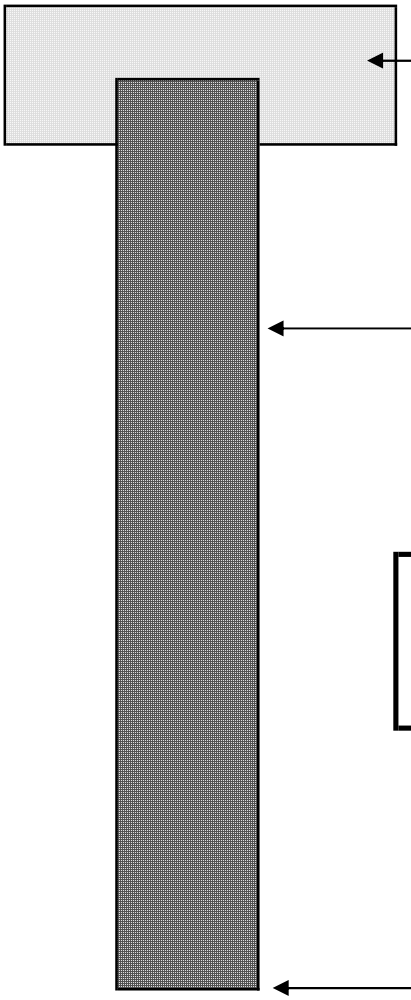
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/22/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **28** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **33** FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **AEQ 234**

CLIENT WELL ID #: **MW-13**

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62673**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **RE09106**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Crop Production Services Inc**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

Unique Ecology Well ID

Tag No.

Location 1/4 **NW** 1/4 **SE** Sec **25** TWN **10N** R **29E** ☐ EWM ☒ WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

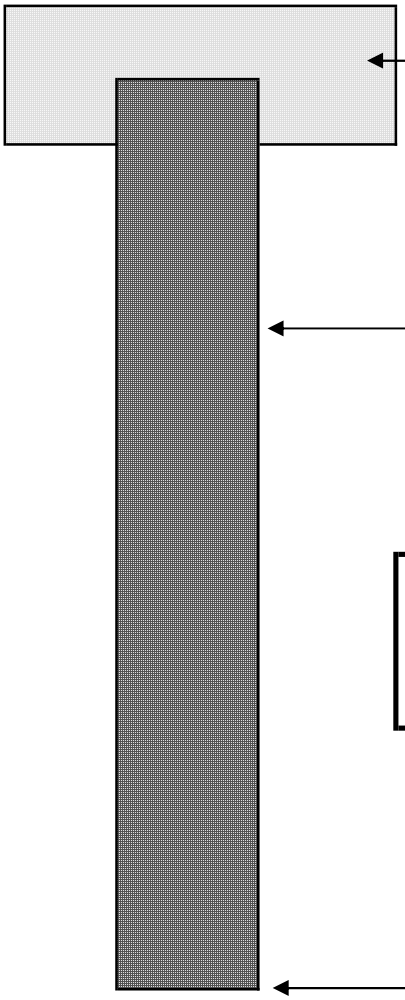
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/21/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **20** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **25** FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **BIC 838**

CLIENT WELL ID #:

Scale 1" =

Page of

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62673**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **RE09106**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Crop Production Services Inc**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **NW** 1/4 **SE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

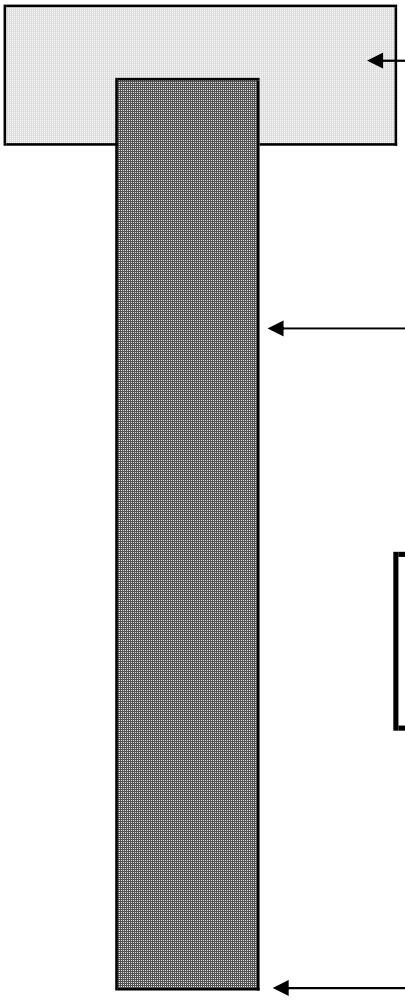
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/21/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **20** FT — **0** - FT — **Bentonite Chips**

DEPTH OF BORING **25** FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **BIC 839**

CLIENT WELL ID #:

Scale 1" =

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. **AE62673**

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* **RE09106**

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner **Crop Production Services Inc**

Site Address **3482 Glade Road North**

Consulting Firm **Rubik Environmental**

City **Pasco** County **Franklin**

EWM

Unique Ecology Well ID

Tag No.

Location 1/4 **NW** 1/4 **SE** Sec **25** TWN **10N** R **29E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.

☒ Driller ☐ Trainee Name (Print) **Joseph Mesuda**

Driller/Trainee Signature

Driller/Trainee License No. **3274**

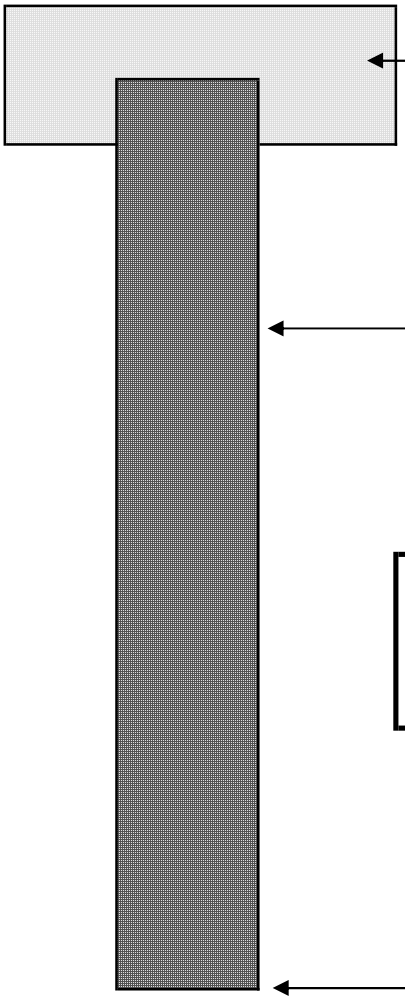
Cased or Uncased Diameter **CIP 2" Well** Static Level

Work/Decommision Start Date **9/21/2020**

If trainee, licensed drillers' Signature and License No.

Work/Decommision Completed Date **9/21/2020**

Construction/Design | Well Data 110-20-1102 | Formation Description



CONCRETE SURFACE SEAL **5** FT — **0** - FT — Chip in place 2" well

BACKFILL **20** FT — **0** - FT

Bentonite Chips

DEPTH OF BORING **25** FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : **BIC 840**

CLIENT WELL ID #:

Scale 1" =

Page of

APPENDIX E

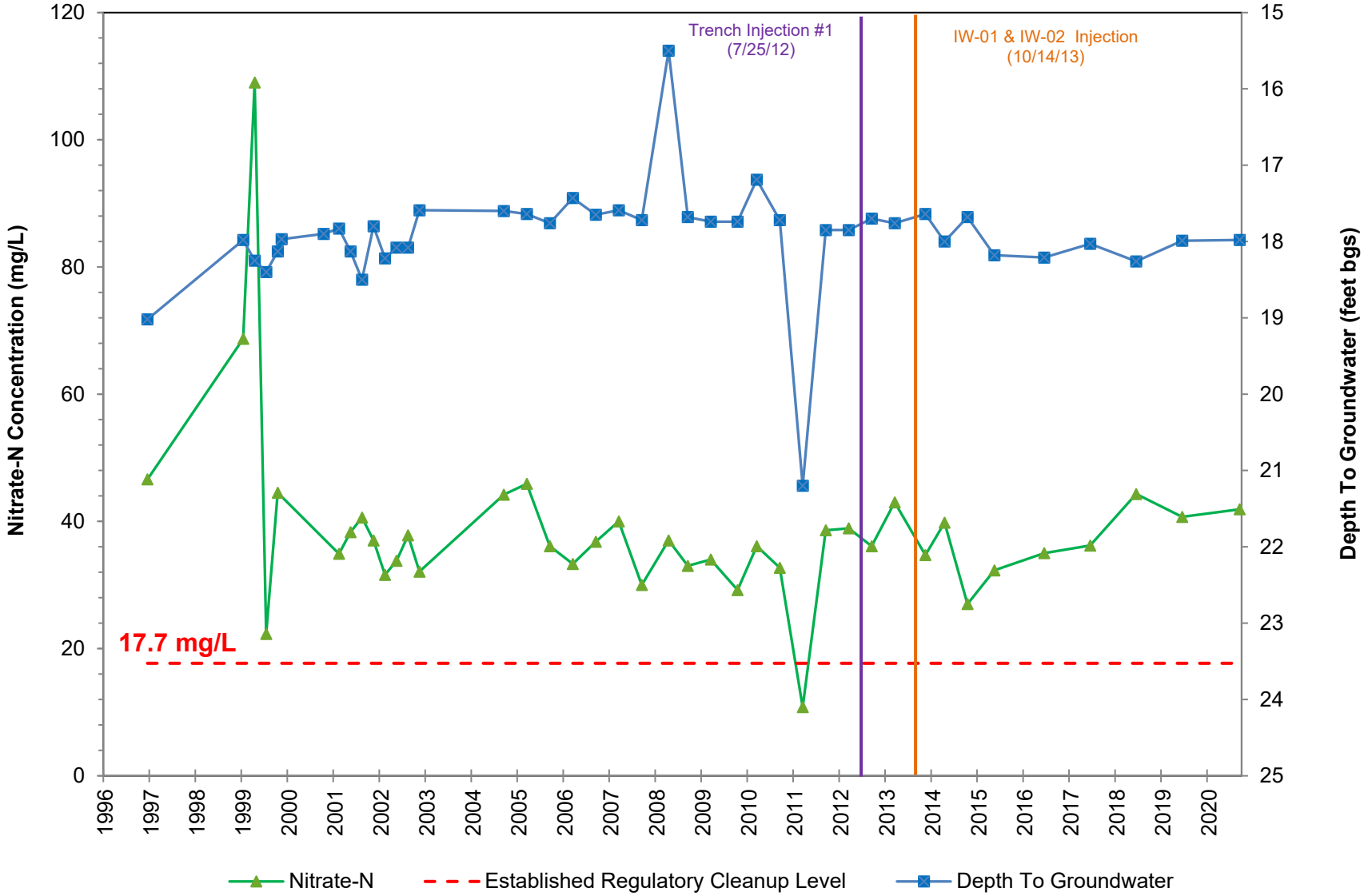
GRAPHS COMPARING NITRATE CONCENTRATIONS TO GROUNDWATER DEPTH OVER TIME

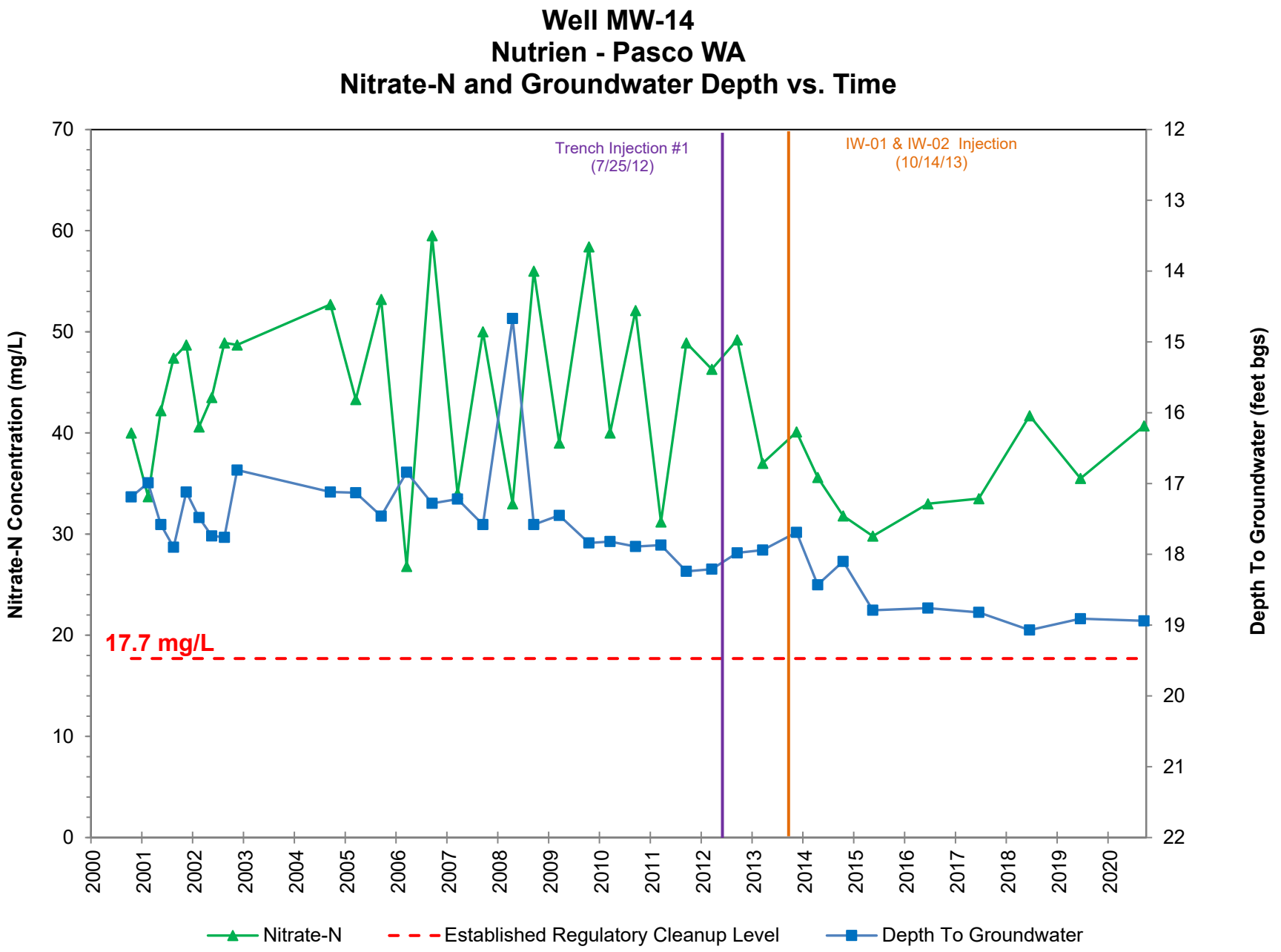
2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

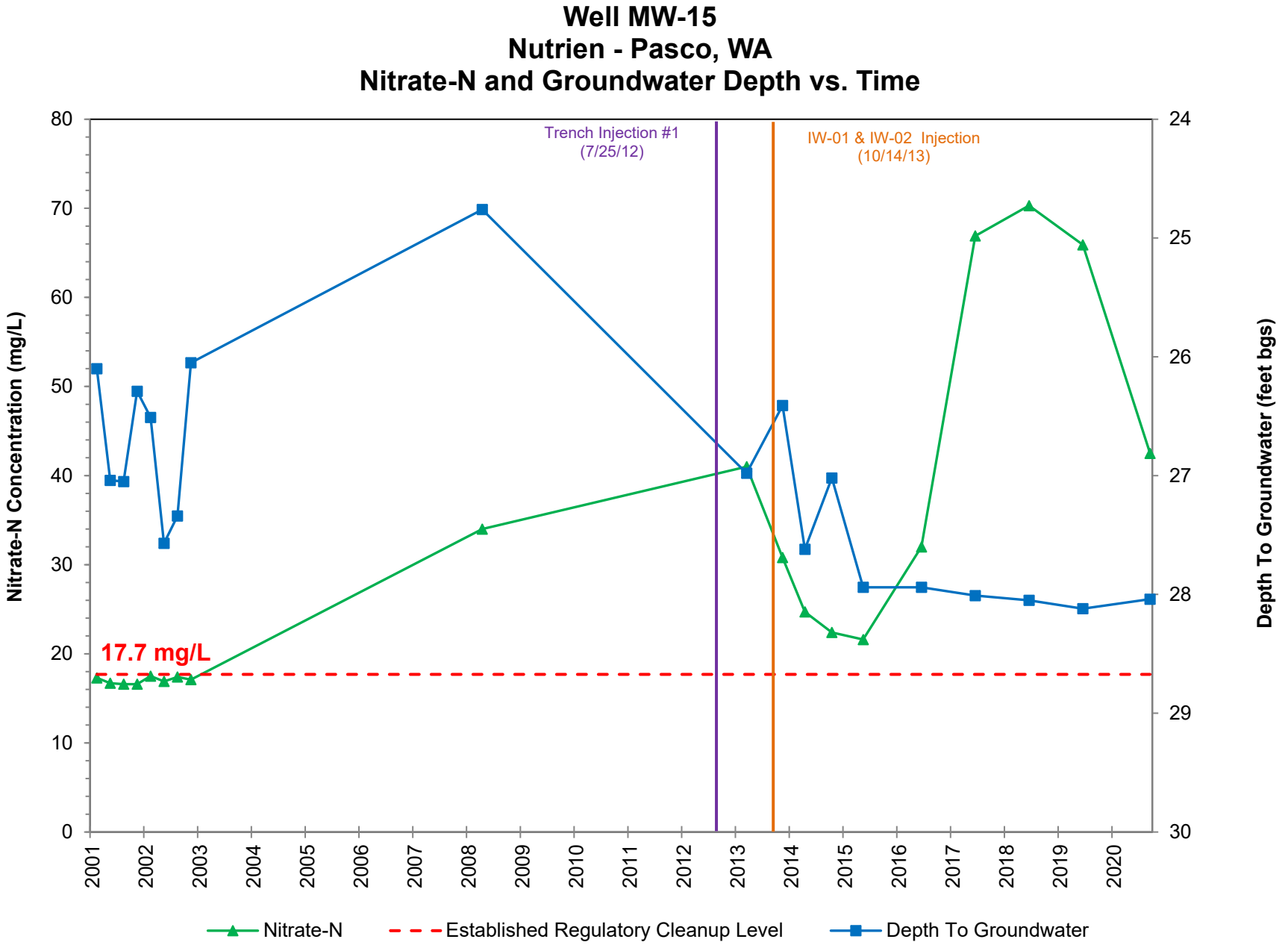
Nutrien Ag Solutions, Inc.
Pasco, Washington

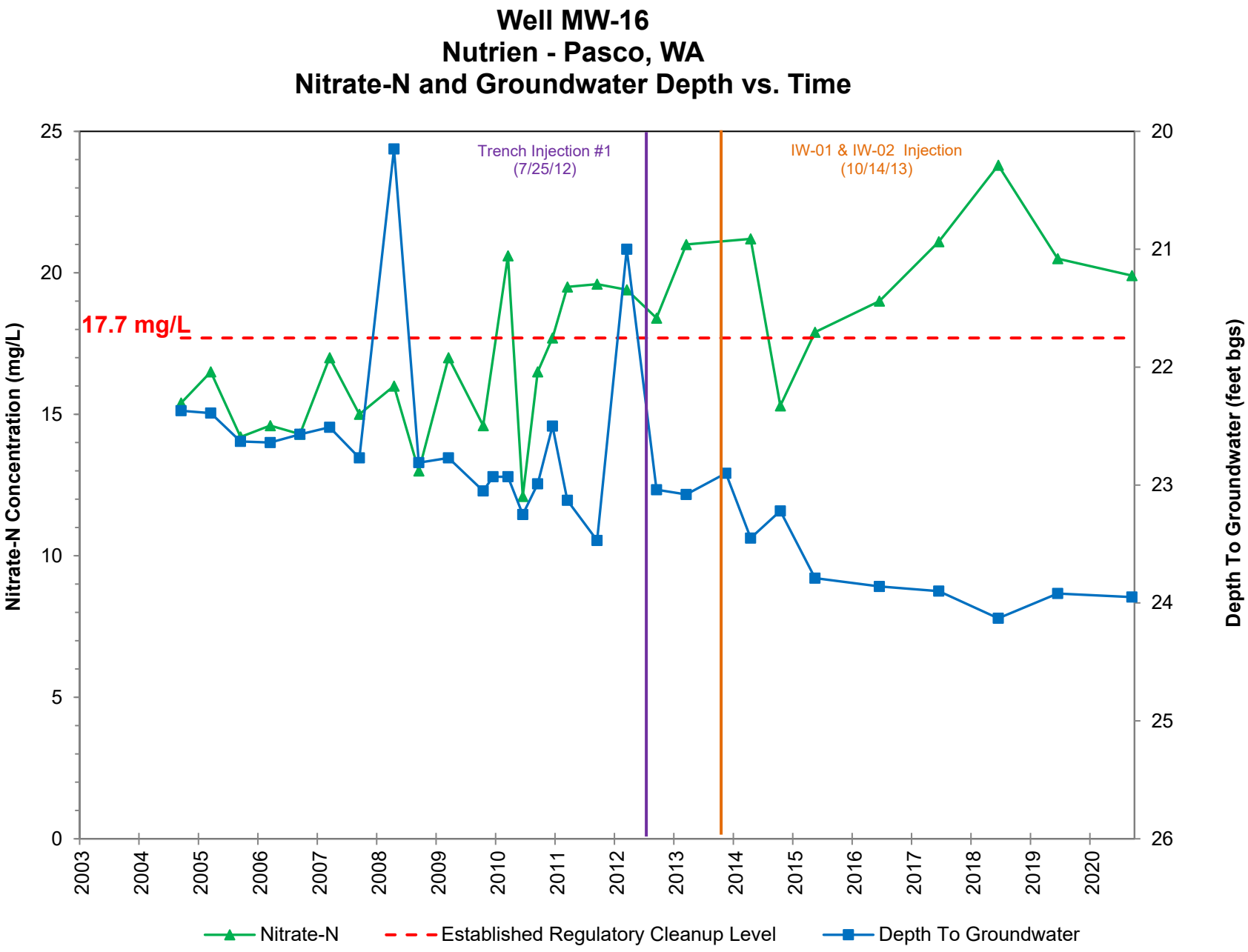
November 2020

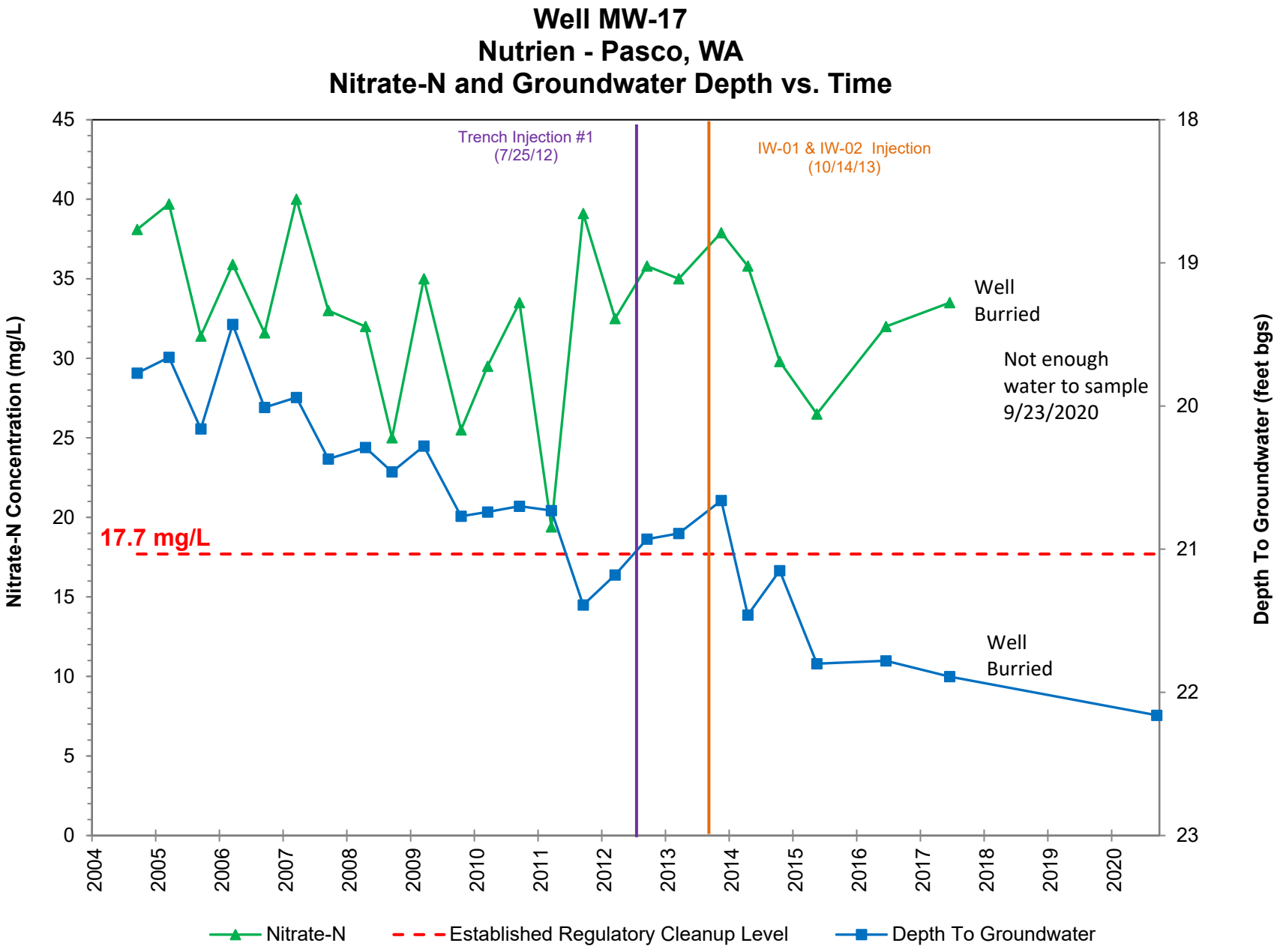
Well MW-4
Nutrien - Pasco WA
Nitrate-N and Groundwater Depth vs. Time

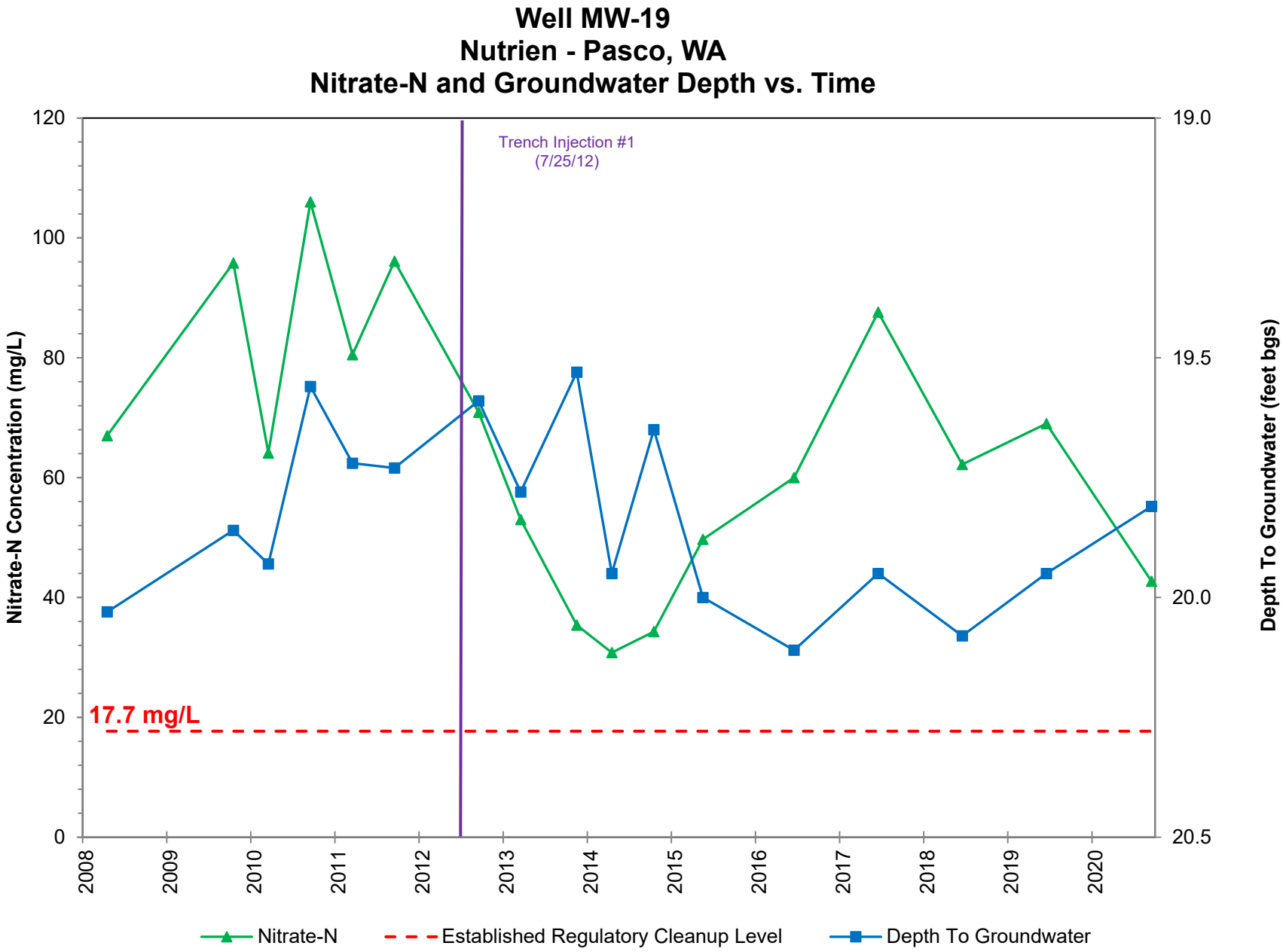



Well MW-14
Nutrien - Pasco WA
Nitrate-N and Groundwater Depth vs. Time
Trench Injection #1
(7/25/12)
IW-01 & IW-02 Injection
(10/14/13)
17.7 mg/L
Nitrate-N Concentration (mg/L)
Depth To Groundwater (feet bgs)
70
60
50
40
30
20
10
0
12
13
14
15
16
17
18
19
20
21
22
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Nitrate-N
Established Regulatory Cleanup Level
Depth To Groundwater


Well MW-15
Nutrien - Pasco, WA
Nitrate-N and Groundwater Depth vs. Time
Trench Injection #1
(7/25/12)
IW-01 & IW-02 Injection
(10/14/13)
17.7 mg/L
Nitrate-N Concentration (mg/L)
Depth To Groundwater (feet bgs)
0
10
20
30
40
50
60
70
80
24
25
26
27
28
29
30
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Nitrate-N
Established Regulatory Cleanup Level
Depth To Groundwater


Well MW-16
Nutrien - Pasco, WA
Nitrate-N and Groundwater Depth vs. Time
Trench Injection #1
(7/25/12)
IW-01 & IW-02 Injection
(10/14/13)
17.7 mg/L
Nitrate-N Concentration (mg/L)
Depth To Groundwater (feet bgs)
0
5
10
15
20
25
20
21
22
23
24
25
26
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Nitrate-N
Established Regulatory Cleanup Level
Depth To Groundwater


Well MW-17
Nutrien - Pasco, WA
Nitrate-N and Groundwater Depth vs. Time
Nitrate-N Concentration (mg/L)
Depth To Groundwater (feet bgs)
Trench Injection #1
(7/25/12)
IW-01 & IW-02 Injection
(10/14/13)
Well
Buried
Not enough
water to sample
9/23/2020
17.7 mg/L
Well
Buried
Nitrate-N
Established Regulatory Cleanup Level
Depth To Groundwater


Well MW-19
Nutrien - Pasco, WA
Nitrate-N and Groundwater Depth vs. Time
Trench Injection #1
(7/25/12)
17.7 mg/L
Nitrate-N Concentration (mg/L)
Depth To Groundwater (feet bgs)
120
100
80
60
40
20
0
19.0
19.5
20.0
20.5
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Nitrate-N
Established Regulatory Cleanup Level
Depth To Groundwater

Well MW-20
Nutrien - Pasco, WA
Nitrate-N and Groundwater Depth vs. Time

APPENDIX F

GROUNDWATER SAMPLING FIELD DATA SHEETS

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

Rubik
320 Flint Street
Reno, Nevada 89501
rubikenvironmental.com
775-622-0857

WELL SAMPLING FORM

Date: 20200923	Client: Nutrien
Site: Prosser	Field Personnel: GF
Well ID: MW-4	Ambient Temp: 75
Purging Device: Bladder	Pump Setting: 7/10
Sampling Method: Bladder	COMMENTS:
Well Diameter (in): 2 (Stick up / Flush)	
Total Well Depth (ft btoc): 31.20	
Depth to Water (ft btoc): 17.98	
Water Column Thickness (ft): 13.22	
Top / Bottom of Screen (ft btoc): 15/30	
Pump intake depth (ft btoc): 20	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1240	0	17.98	23.7	7.04	1282	2.80	206.6	34.81
1245	1000	"	20.1	6.88	1428	1.05	193.2	27.33
1250	2000	"	19.5	6.83	1422	0.81	180.0	26.41
1255	3000	"	19.4	6.80	1421	0.80	188.9	24.34

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
MW-4	9/23	1257	1	250p	H2SO4	TON/TOC
Dup	"	-	"	"	"	TON/TOC

Rubik
320 Flint Street
Reno, Nevada 89501
rubikenvironmental.com
775-622-0857

WELL SAMPLING FORM

Date: 20200923	Client: N-Prm
Site: Pasa	Field Personnel: GP
Well ID: mw-14	Ambient Temp: 72
Purging Device: Bladder	Pump Setting: 15/4/6
Sampling Method: Bladder	COMMENTS:
Well Diameter (in): 2 (Stick-up) Flush	
Total Well Depth (ft btoc): 23.93	
Depth to Water (ft btoc): 21.73	
Water Column Thickness (ft): 2.2	
Top / Bottom of Screen (ft btoc): 11.5/27	
Pump intake depth (ft btoc): 23	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1211	C	21.73	20.5	6.99	1290	6.20	192.8	42.39
1216	1000	"	18.8	7.10	1287	5.51	192.6	18.71
1221	2000	"	18.6	7.12	1288	4.90	193.3	21.17
1226	3000	"	18.2	7.08	1284	4.84	194.9	22.63

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
MW-14	09/23	1228	1	250p	H2SO4	COD/TOC

Rubik
320 Flint Street
Reno, Nevada 89501
rubikenvironmental.com
775-622-0857

WELL SAMPLING FORM

Date: 20200923	Client: Nutrien
Site: Pasco	Field Personnel: CA
Well ID: mw-15	Ambient Temp: 75
Purging Device: Bladder	Pump Setting: S/M
Sampling Method: Bladder	COMMENTS:
Well Diameter (in): 2	Stick up / Flush
Total Well Depth (ft btoc): 32.73	
Depth to Water (ft btoc): 30.54	
Water Column Thickness (ft): 2.19	
Top / Bottom of Screen (ft btoc): 15/33	
Pump intake depth (ft btoc): 32	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1416	c	30.54	24.2	6.80	1691	5.70	200.4	muddy
1421	1ccc	"	20.0	6.76	1542	6.96	205.8	120.7
1426	2ccc	"	19.4	6.78	1538	6.66	207.4	32.61
1431	3ccc	"	19.4	6.80	1531	6.93	209.5	25.41

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
mw-15	9/23	1432	1	25ep	H2SO4	EN/10C

Rubik
320 Flint Street
Reno, Nevada 89501
rubikenvironmental.com
775-622-0857

WELL SAMPLING FORM

Date: 20200923	Client: Nutrien
Site: Pasco	Field Personnel: CF
Well ID: MW-16	Ambient Temp: 70
Purging Device: Bladder	Pump Setting:
Sampling Method: Bladder	COMMENTS: Tall weeds and uneven ground. Ran tubing to well from road
Well Diameter (in): 2 (Stick up) Flush	
Total Well Depth (ft btoc): 34.63	
Depth to Water (ft btoc): 23.95	
Water Column Thickness (ft): 10.68	
Top / Bottom of Screen (ft btoc): 21/31.5	
Pump intake depth (ft btoc): 25	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1131	C	23.95	24.9	8.89	1053	5.17	166.2	30.26
1136	1000	"	24.6	8.05	1091	3.61	179.4	28.55
1141	2000	"	25.0	7.61	1111	3.13	182.3	26.17
1146	3000	"	25.1	7.64	1133	3.11	184.9	24.24

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
MW-16	9/23	1147	1	250p	H2SO4	TON/TOC

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WELL SAMPLING FORM

Date: 20200923	Client: Nutrien
Site:	Field Personnel:
Well ID: MW-7	Ambient Temp:
Purging Device:	Pump Setting:
Sampling Method:	COMMENTS:
Well Diameter (in): Stick up Flush	
Total Well Depth (ft btoc): 22.98	
Depth to Water (ft btoc): Before 22.16	
Water Column Thickness (ft):	
Top / Bottom of Screen (ft btoc): 12.5 / 22.5	
Pump intake depth (ft btoc):	

TIME	PURGED VOLUME ( )	DEPTH TO WATER (ft btoc)	TEMP ( )	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method

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Reno, Nevada 89501
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WELL SAMPLING FORM

Date: 20200923	Client: Nutrien
Site: Pasco	Field Personnel: GF
Well ID: MW-19	Ambient Temp: 73
Purging Device: Bladder	Pump Setting: 5/30
Sampling Method: Bladder	COMMENTS:
Well Diameter (in): 2 Stick up (Flush)	
Total Well Depth (ft btoc): 24.67	
Depth to Water (ft btoc): 19.87	
Water Column Thickness (ft): 4.80	
Top / Bottom of Screen (ft btoc): 10/25	
Pump intake depth (ft btoc): 22	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1341	C	19.87	22.9	6.88	1240	4.24	202.5	54.61
1346	1cc	"	18.4	6.79	1214	1.34	206.5	18.68
1351	2cc	"	17.7	6.79	1268	1.22	206.1	16.55
1356	3cc	19.89	17.8	6.77	1273	1.16	206.0	13.21

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
		1357				

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Reno, Nevada 89501
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775-622-0857

WELL SAMPLING FORM

Date: 20240923	Client: Nutrien
Site: Paiute	Field Personnel: EF
Well ID: MW-2C	Ambient Temp: 72
Purging Device: Bladder	Pump Setting: 5/40
Sampling Method: Bladder	COMMENTS:
Well Diameter (in): 2 Stick up Flush	
Total Well Depth (ft btoc): 21.07	
Depth to Water (ft btoc): 17.43	
Water Column Thickness (ft): 3.64	
Top / Bottom of Screen (ft btoc): 11/21	
Pump intake depth (ft btoc): 20	

TIME	PURGED VOLUME (mL)	DEPTH TO WATER (ft btoc)	TEMP (C)	pH	COND. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1311	0	17.43	23.7	6.95	1293	4.55	198.7	14.84
1316	1000	"	19.7	6.83	1110	2.55	199.2	mod
1321	2000	"	18.2	6.82	1116	2.16	199.4	64.92
1326	3000	"	18.1	6.81	1120	2.10	200.2	32.12

Sample ID	Sample Date	Sample Time	Number of Containers	Container Type	Preservative	Method
MW-20	9/23	1327	1	250p	H_2SO_4	EPA 300.0

APPENDIX G

LABORATORY ANALYTICAL REPORT

2020 ANNUAL GROUNDWATER MONITORING AND SAMPLING AND SITE IMPROVEMENTS REPORT

Nutrien Ag Solutions, Inc.
Pasco, Washington

November 2020

October 20, 2020 Revised Service Request No:K2008398.01

Casandra Woodward
Rubik Environmental, Inc
320 Flint Street
Reno, NV 89501

Laboratory Results for: Nutrien Pasco

Dear Casandra,

Enclosed is the revised report for the sample(s) submitted to our laboratory September 24, 2020. For your reference, these analyses have been assigned our service request number **K2008398.**

The Nitrate + Nitrite results for MW-15 was corrected.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

We apologize for any inconvenience this may have created.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at howard.holmes@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Howard Holmes
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

REVISED
4:17 pm, Oct 20, 2020

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

Client: Rubik Environmental, Inc
Project: Nutrien Pasco
Sample Matrix: Water

Service Request: K2008398
Date Received: 09/24/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seven water samples were received for analysis at ALS Environmental on 09/24/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by  Date 10/09/2020

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-4			Lab ID: K2008398-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	41.9			5.0	mg/L	353.2

CLIENT ID: MW-14			Lab ID: K2008398-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	40.7			5.0	mg/L	353.2

CLIENT ID: MW-15			Lab ID: K2008398-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	42.5			5.0	mg/L	353.2

CLIENT ID: MW-16			Lab ID: K2008398-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	19.9			5.0	mg/L	353.2

CLIENT ID: MW-19			Lab ID: K2008398-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	42.7			5.0	mg/L	353.2

CLIENT ID: MW-20			Lab ID: K2008398-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	28.9			5.0	mg/L	353.2

CLIENT ID: DUP			Lab ID: K2008398-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Nitrate+Nitrite as Nitrogen	41.2			5.0	mg/L	353.2

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Rubik Environmental, Inc **Service Request:**K2008398

Project: Nutrien Pasco/03031-2020-MS

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
K2008398-001	MW-4	9/23/2020	1257
K2008398-002	MW-14	9/23/2020	1228
K2008398-003	MW-15	9/23/2020	1432
K2008398-004	MW-16	9/23/2020	1147
K2008398-005	MW-19	9/23/2020	1357
K2008398-006	MW-20	9/23/2020	1327
K2008398-007	DUP	9/23/2020	

Nutrien Ag Solutions™

Chain of Custody Form

Page 1 of 1

ALS Environmental
1317 S. 13th Ave
Kelso, WA 98626
Tel: (360) 577-7222
Fax: (360) 636-1068
www.alsglobal.com

L2008398

ALS Project Manager:	Howard Holmes	ALS Work Order #:	

Project Information

Project Name	Nutrien Pasco		
Project Number	03031-2020-MS		
Company Name	Rubik Environmental, Inc		
Send Report To	Casandra Woodward	Site Name	Nutrien Pasco
Address	320 Flint Street	Site Address	3482 Glade Road North
City/State/Zip	Reno, NV 89501	City/State/Zip	Pasco, WA 99301
Phone	775-622-0857	Phone	(970) 685-3553
Fax			
e-Mail Address	cwoodward@rubikenv.com; data@rubikenv.com		

Parameter/Method Request for Analysis

No.	Sample ID	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A: TON (Nitrate + Nitrite as N) [EPA 353.2]	B	C	D	E	F	Comments
	MW-4	2020923	1257	Liquid	3	1	X						
	MW-14		1228	Liquid	3	1	X						
	MW-15		1132	Liquid	3	1	X						
	MW-16		1117	Liquid	3	1	X						
	~~MW-17~~			Liquid	3	1	X						
	MW-19		1357	Liquid	3	1	X						
	MW-20		1327	Liquid	3	1	X						
	DUP		-										

Sampler(s): Please Print & Sign: Eric Farlin

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ 7 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☑ Standard - 10Wk Days

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	2020923	1600		9/24/20	0945
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

EDD Requested ☑ Yes ☐ No

Notes

ALS Cooler ID	Cooler Temp

QC Package: (Check Box Below)

☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-NaOH/ZnAcetate

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

PM HH

Cooler Receipt and Preservation Form

Client _____ Service Request K20 08398

Received: 9/24/20 Opened: 9/24/20 By: BK Unloaded: 9/24/20 By: BK

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? front
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N
4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column below:
   If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA Y N
   If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
1.7	—	IR01				355220440339	

6. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
7. Were custody papers properly ~~filled~~ out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
13. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
14. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Rubik Environmental, Inc
Project: Nutrien Pasco/03031-2020-MS
Service Request: K2008398

Sample Name: MW-4
Lab Code: K2008398-001
Sample Matrix: Water
Date Collected: 09/23/20
Date Received: 09/24/20

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Name: MW-14
Lab Code: K2008398-002
Sample Matrix: Water
Date Collected: 09/23/20
Date Received: 09/24/20

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Name: MW-15
Lab Code: K2008398-003
Sample Matrix: Water
Date Collected: 09/23/20
Date Received: 09/24/20

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Name: MW-16
Lab Code: K2008398-004
Sample Matrix: Water
Date Collected: 09/23/20
Date Received: 09/24/20

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Name: MW-19
Lab Code: K2008398-005
Sample Matrix: Water
Date Collected: 09/23/20
Date Received: 09/24/20

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS		

Sample Name:	MW-20	**Date Collected:**	09/23/20
Lab Code:	K2008398-006	**Date Received:**	09/24/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Name:	DUP	**Date Collected:**	09/23/20
Lab Code:	K2008398-007	**Date Received:**	09/24/20
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
353.2	MKANALY	MKANALY

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

General Chemistry

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

REVISED
4:17 pm, Oct 20, 2020

Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 12:57
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-4	**Basis:**	NA
Lab Code:	K2008398-001		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**41.9**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 12:28
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-14	**Basis:**	NA
Lab Code:	K2008398-002		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**40.7**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 14:32
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-15	**Basis:**	NA
Lab Code:	K2008398-003		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**42.5**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 11:47
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-16	**Basis:**	NA
Lab Code:	K2008398-004		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**19.9**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 13:57
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-19	**Basis:**	NA
Lab Code:	K2008398-005		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**42.7**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20 13:27
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	MW-20	**Basis:**	NA
Lab Code:	K2008398-006		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**28.9**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	09/23/20
Sample Matrix:	Water	**Date Received:**	09/24/20 09:45
Sample Name:	DUP	**Basis:**	NA
Lab Code:	K2008398-007		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	**41.2**	mg/L	5.0	100	10/09/20 13:49	10/09/20	

QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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General Chemistry

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Analytical Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	K2008398-MB		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Nitrate+Nitrite as Nitrogen	353.2	ND U	mg/L	0.050	1	10/09/20 13:49	10/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Rubik Environmental, Inc	**Service Request:**	K2008398
Project:	Nutrien Pasco/03031-2020-MS	**Date Analyzed:**	10/09/20
Sample Matrix:	Water	**Date Extracted:**	10/09/20

Lab Control Sample Summary
Nitrate+Nitrite as Nitrogen

Analysis Method:	353.2	**Units:**	mg/L
Prep Method:	Method	**Basis:**	NA
		Analysis Lot:	698702

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K2008398-LCS	16.6	16.1	103	90-110