3R – 317

2011 AGWMR

05 / 11 / 2012

Williams
Environmental Services
188 CR 4900
Bloomfield, NM 87413

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2012 MAY 14 A 11: 13

May 11, 2012

Mr. Glen Von Gonten
Hydrologist
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 2011 GROUND WATER SUMMARY REPORT

Dear Mr. Von Gonten:

Enclosed for your review is the Williams 2011 Ground Water Summary Report. The report presents monitoring data for seven sites having petroleum hydrocarbon impacted ground water resulting from past use of unlined surface impoundments. Information for each site includes a brief narrative, analytical summary, hydrograph, and ground water contour maps.

As has been mentioned previously, four of the eight sites have known or suspected up-gradient contaminant sources which continue to influence conditions affecting the rate of natural attenuation. These conditions likely indicate producer or third party responsibility and affect the ultimate closure schedule.

Two sites (Florence 47X and Davis #1) have regular accumulations of LNAPL in one monitoring well at each location. Since 2002, passive collection devices have been deployed in all wells containing measurable accumulations of LNAPL. Free product which has again appeared at the Dogie Compressor Station has been analyzed and found to be some type of refined product. A report on this finding will be presented under separate cover. Periodic emptying of the collection devices along with active bailing of LNAPL continues at all free product sites if and when LNAPL is observed.

As noted in the site summaries, laboratory reports have not been included in the annual summary report. Lab results reports are retained in project files until such time as a site closure report is developed, but are available anytime upon request.

Thank you for your time to review this submittal. If you have any questions regarding the content of the report, or about specific conditions at any site, you may call me at (505) 402-1958 or Danny Reutlinger at (918) 573-2000.

Respectfully,

Mark Harvey
Project Manager

Enclosure

c: Bill Liess, BLM Farmington District Office
Dan Reutlinger, Williams-TUL

Annual
Groundwater Report
2011

San Juan Basin, New Mexico
Unlined Surface Impoundments

3R-317

Site Summary Report

Site Name: Florance 47X **Reporting Period: 2011**

Location: Unit G, Sec 5, Twn 30N, Rng 8W
Canyon: Crow
Operator: BP

Status Narrative

Fifty-seven quarters of water quality data have been collected from the five monitoring wells located at this site. Monitoring well MW-3 remains as the only well with accumulations of LNAPL. To date, a total of approximately 67-liters of LNAPL have been recovered from this well. With the exception of a detectable level of benzene in quarter one, cross-gradient well MW-4 had only xylene detected during the monitoring period. Monitoring well MW-2 (source area) again shows elevated levels of BTEX.

Potentiometric surface maps (Figure 2) depict ground water flow to the south-southeast at an average hydraulic gradient of 0.02. No significant seasonal variations in flow direction or gradient are evident. The enclosed hydrograph illustrates a stable ground water elevation pattern over the past few years.

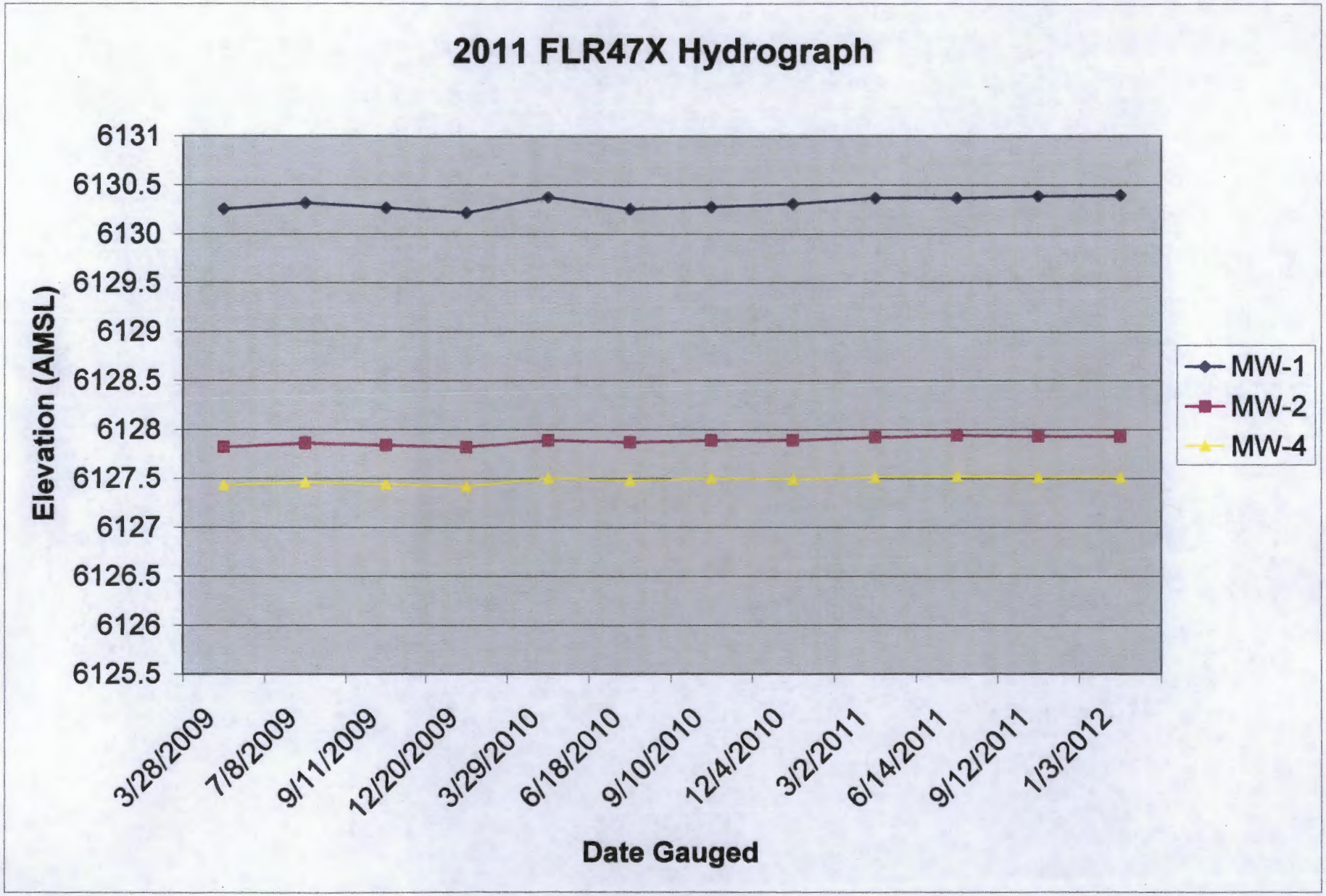
While the monitoring trends appear somewhat positive, the presence of LNAPL in MW-3 may indicate contribution(s) from another source. As has been noted in previous submittals, there was another pit operated by the producer within the immediate vicinity of this monitoring well which is on a lower terrace from the WFS dehydrator pit and MW-2. Free product accumulation in MW-3 appears to be relatively constant and dictates the need to continue ongoing removal efforts.

Analytical Data Summary

Site Name:
Florance M 47X

Reporting Period:
1/1/2010 To 1/30/2012

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1						
	3/29/2010	185429MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	144618JUN10	<1.0	<1.0	<1.0	<3.0
	9/10/2010	134010SEP10	1.2	<1.0	<1.0	<3.0
	12/4/2010	144404DEC10	<1.0	<1.0	<1.0	<3.0
	3/2/2011	160202MAR11	<1.0	<1.0	<1.0	<3.0
	6/14/2011	161614JUN11	3.6	<1.0	<1.0	<3.0
	9/12/2011	171012SEP11	<1.0	<1.0	<1.0	<3.0
	1/3/2012	143903JAN12	<1.0	<1.0	<1.0	<3.0
MW-2						
	3/29/2010	190629MAR10	9460	67.2	521	6210
	6/18/2010	150018JUN10	3270	<10.0	260	3530
	12/4/2010	145304DEC10	1470	26.3	599	2720
	3/2/2011	162402MAR11	2530	1.4	764	3700
	6/14/2011	162314JUN11	8500	<20.0	537	4490
	1/3/2012	144603JAN12	9400	<50.0	710	6340
MW-4						
	3/29/2010	191829MAR10	1.3	<1.0	<1.0	8.7
	6/18/2010	151518JUN10	<1.0	<1.0	<1.0	6.8
	9/10/2010	163510SEP10	<1.0	<1.0	<1.0	3.9
	12/4/2010	150404DEC10	<1.0	<1.0	<1.0	5.6
	3/2/2011	164002MAR11	<1.0	<1.0	<1.0	3.0
	6/14/2011	163514JUN11	<1.0	<1.0	<1.0	6.0
	9/12/2011	172412SEP11	<1.0	<1.0	<1.0	4.7
	1/3/2012	145703JAN12	<1.0	<1.0	<1.0	5.4


2011 FLR47X Hydrograph
Elevation (AMSL)
6131
6130.5
6130
6129.5
6129
6128.5
6128
6127.5
6127
6126.5
6126
6125.5
3/28/2009
7/8/2009
9/11/2009
12/20/2009
3/29/2010
6/18/2010
9/10/2010
12/4/2010
3/2/2011
6/14/2011
9/12/2011
1/3/2012
Date Gauged
MW-1
MW-2
MW-4

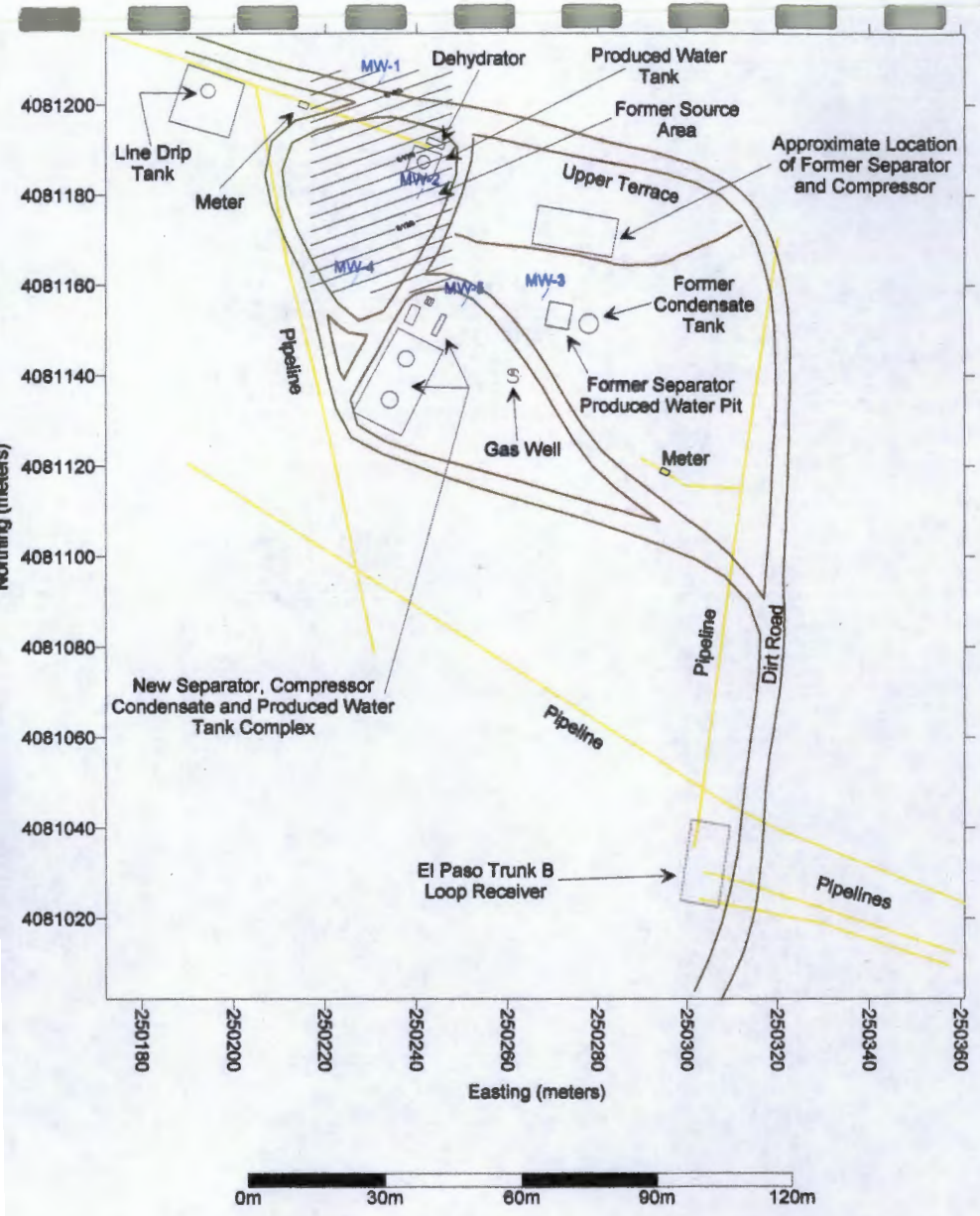


Figure 2
Potentiometric Surface Map
Florance 47X
March 2011

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MW-2 — Monitoring Well

5585.20 — Ground Water Elevation (ft. AMSL)

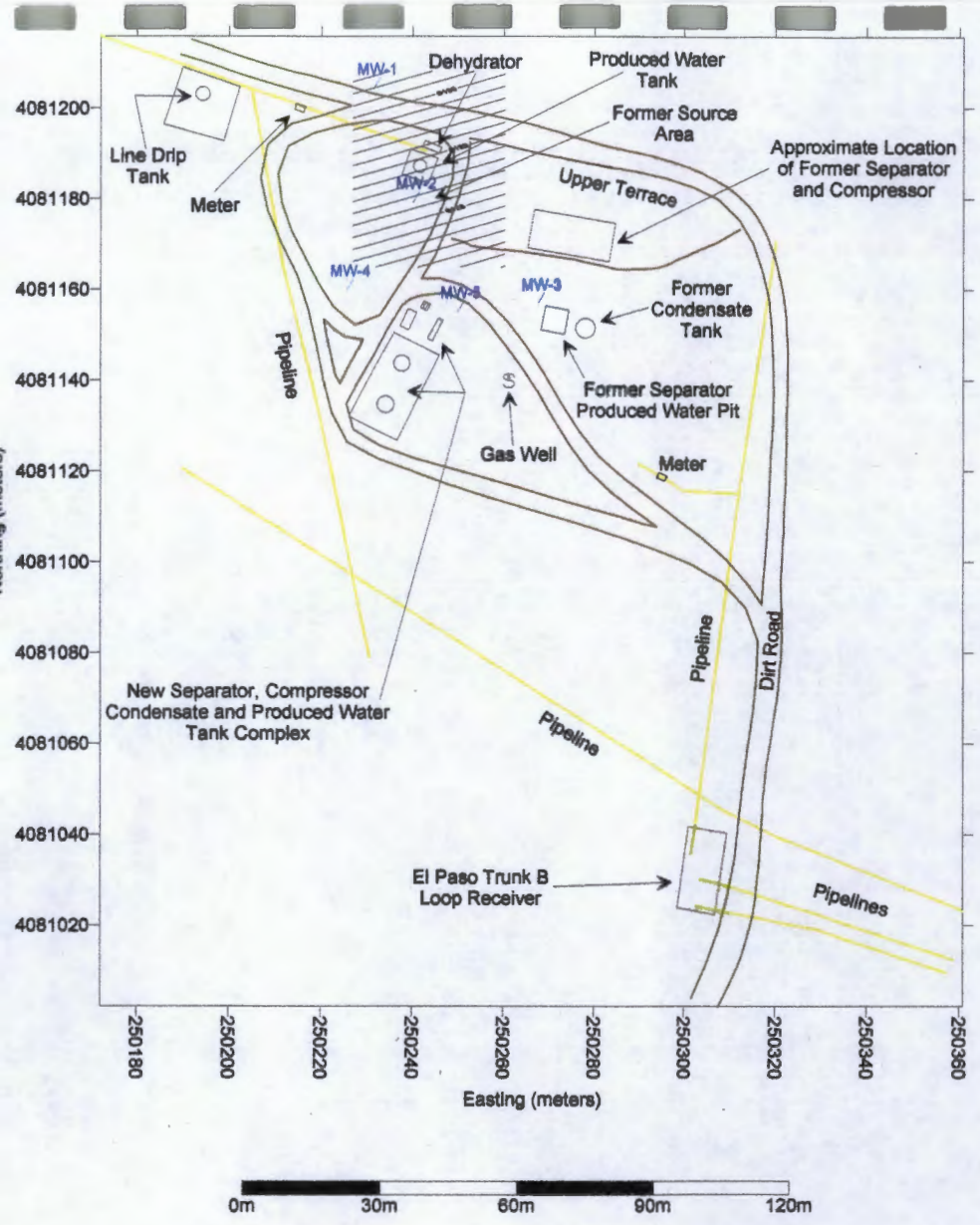

Figure 2
Potentiometric Surface Map
Florance 47X
September 2011

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MW-2 — Monitoring Well

5585.20 — Ground Water Elevation (ft. AMSL)