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2011 AGWMR

05 / 11 / 2012



Environmental Services
188 CR 4900
Bloomfield, NM 87413

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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

Site Summary Report

Site Name: Jicarilla Contract 147-6

Reporting Period: 2011

Location: Unit C, Sec 6, Twn 25N, Rng 5W

Canyon: Tapicito

Operator: BP

Status Narrative

Forty-nine quarters of water quality data have been collected from the ten monitoring wells located at this site. Three of the wells originally installed have been lost due to ongoing erosion of the nearby arroyo banks. Concentrations of BTEX in MW-2, the source area well, are now non-detectable and have been below WQCC standards for several monitoring periods. Cross-gradient well MW-8 was found to be clean in the fourth quarter of 2010 and 2011 results appear indicative of continuing attenuation.

Concentrations of dissolved BTEX in downgradient well MW-3 were relatively stable during the monitoring period and likely reflect contributions from a producer release event in 2007. Contaminant concentrations in MW-6 remain above the WQCC standards and are generally consistent with levels measured in 2010. This too may be related to the release event reported by the producer up gradient of the former dehydrator pit. The benzene spike in MW-9 in both the third and fourth quarters of 2010 was not seen during 2011 and BTEX was non-detect.

Potentiometric surface maps (Figure 2) depict a northwest by north to northwest ground water flow direction at an average hydraulic gradient of 0.025. Seasonal fluctuations in water-table elevation at the site are illustrated in the enclosed hydrograph.

As has been stated before, there are several wells / piezometers in the area where the producer excavated soil as part of a spill cleanup effort up gradient of the former dehydrator pit. The nature and extent of any remedial effort or sampling which may be performed by the producer is unknown.

Analytical Data Summary

Site Name:

Jicarilla Contract 147-6

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						
	3/30/2010	155030MAR10	<1.0	<1.0	<1.0	<3.0
	6/22/2010	121722JUN10	<1.0	<1.0	<1.0	<3.0
	9/16/2010	151716SEP10	<1.0	<1.0	<1.0	<3.0
	12/8/2010	144708DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	160010MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	134215JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	151613SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	122206JAN12	<1.0	<1.0	<1.0	<3.0
MW-2						
	3/30/2010	160430MAR10	<1.0	<1.0	<1.0	<3.0
	6/22/2010	123122JUN10	<1.0	<1.0	<1.0	<3.0
	9/16/2010	152616SEP10	<1.0	<1.0	<1.0	4.8
	12/8/2010	145508DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	160910MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	135315JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	152313SEP11	<1.0	<1.0	<1.0	17.8
	1/6/2012	123306JAN12	<1.0	<1.0	<1.0	<3.0
MW-3						
	3/30/2010	162930MAR10	3590	1990	252	2310
	6/22/2010	125822JUN10	2710	1080	191	1170
	9/16/2010	154916SEP10	3240	3630	219	2210
	12/8/2010	151608DEC10	2950	3380	229	1900
	3/10/2011	163410MAR11	1800	729	122	822
	6/15/2011	141415JUN11	2150	1710	124	1000
	9/13/2011	154613SEP11	3460	4500	330	4670
	1/6/2012	125906JAN12	1790	1970	144	1400
MW-6						
	3/30/2010	165430MAR10	19400	10900	570	3330
	6/22/2010	131122JUN10	13500	<100	411	1640
	9/16/2010	160316SEP10	10200	2190	280	1410
	12/8/2010	152908DEC10	10000	495	380	1510
	3/10/2011	164710MAR11	13000	4260	398	1740
	6/15/2011	142515JUN11	14400	518	364	1450
	9/13/2011	160313SEP11	12300	2570	498	2730
	1/6/2012	130906JAN12	11600	730	339	1660

Site Name:

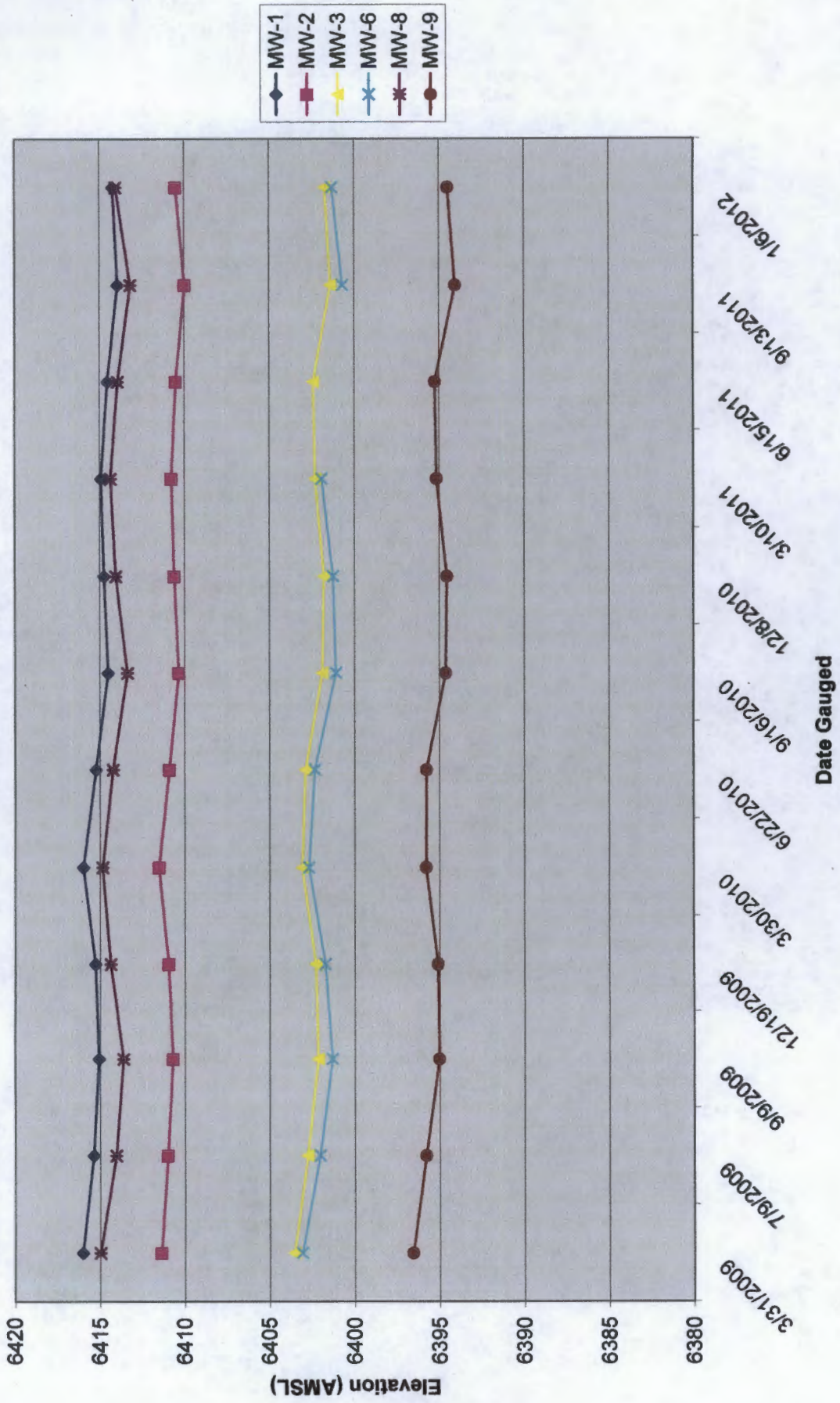
Jicarilla Contract 147-6

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-8						
	3/30/2010	161530MAR10	6.3	<1.0	<1.0	<3.0
	6/22/2010	124422JUN10	3.0	<1.0	<1.0	<3.0
	9/16/2010	153716SEP10	22.9	<1.0	<1.0	<3.0
	12/8/2010	150508DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	162110MAR11	2.0	<1.0	<1.0	<3.0
	6/15/2011	140215JUN11	4.1	<1.0	<1.0	<3.0
	9/13/2011	153313SEP11	1.9	<1.0	<1.0	<3.0
	1/6/2012	124406JAN12	2.4	<1.0	<1.0	<3.0
MW-9						
	3/30/2010	170730MAR10	<1.0	<1.0	<1.0	<3.0
	6/22/2010	132722JUN10	<1.0	<1.0	<1.0	<3.0
	9/16/2010	161316SEP10	8.6	<1.0	<1.0	<3.0
	12/8/2010	154008DEC10	7.8	<1.0	<1.0	<3.0
	3/10/2011	165710MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	143915JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	161213SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	132506JAN12	<1.0	<1.0	<1.0	<3.0

2011 JIC Hydrograph



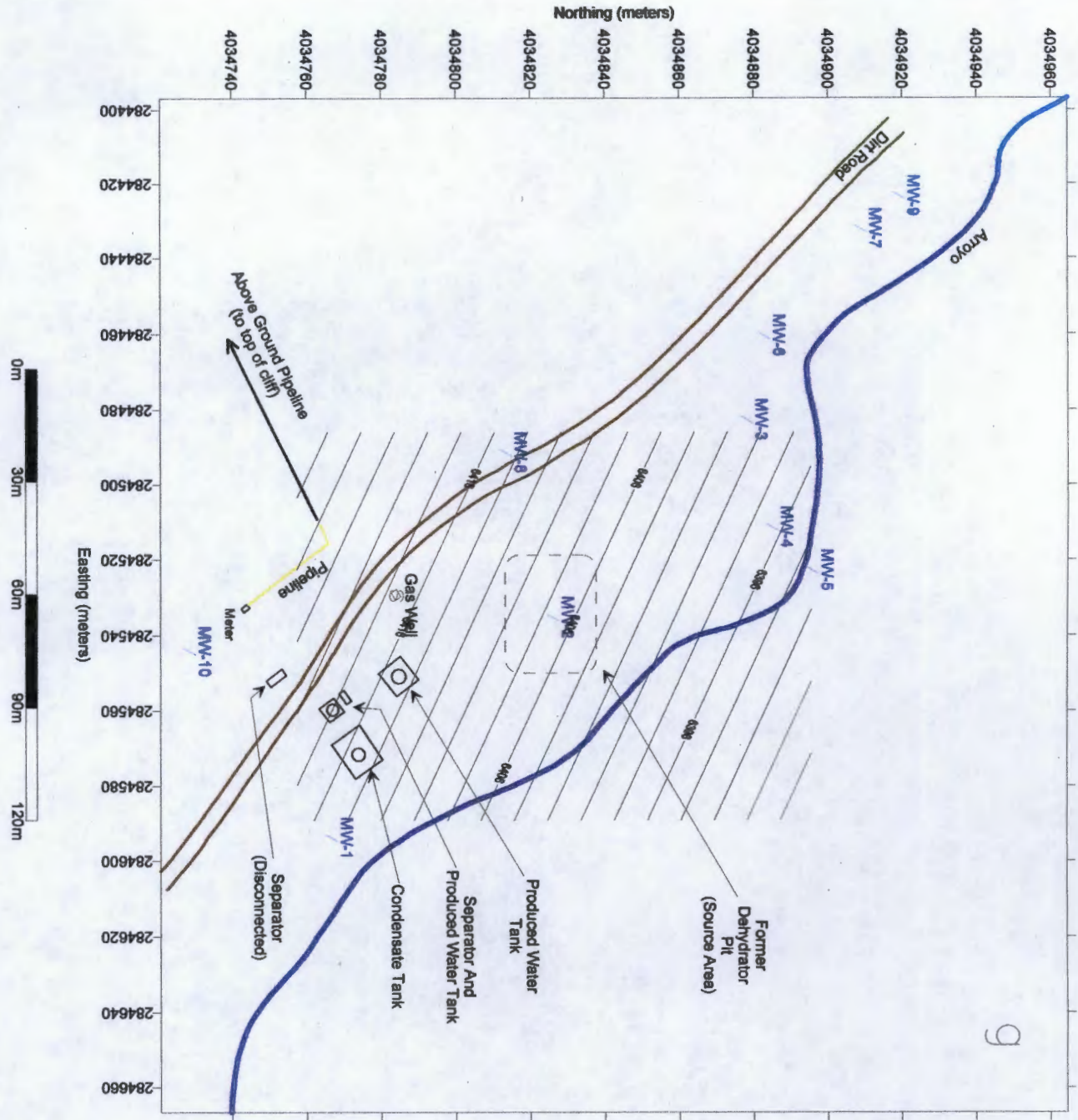
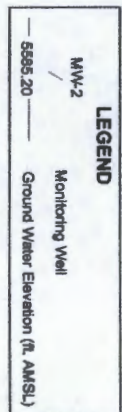


Figure 2
Potentiometric
Surface Map
Jicarilla Contract 147-6
(March 2011)



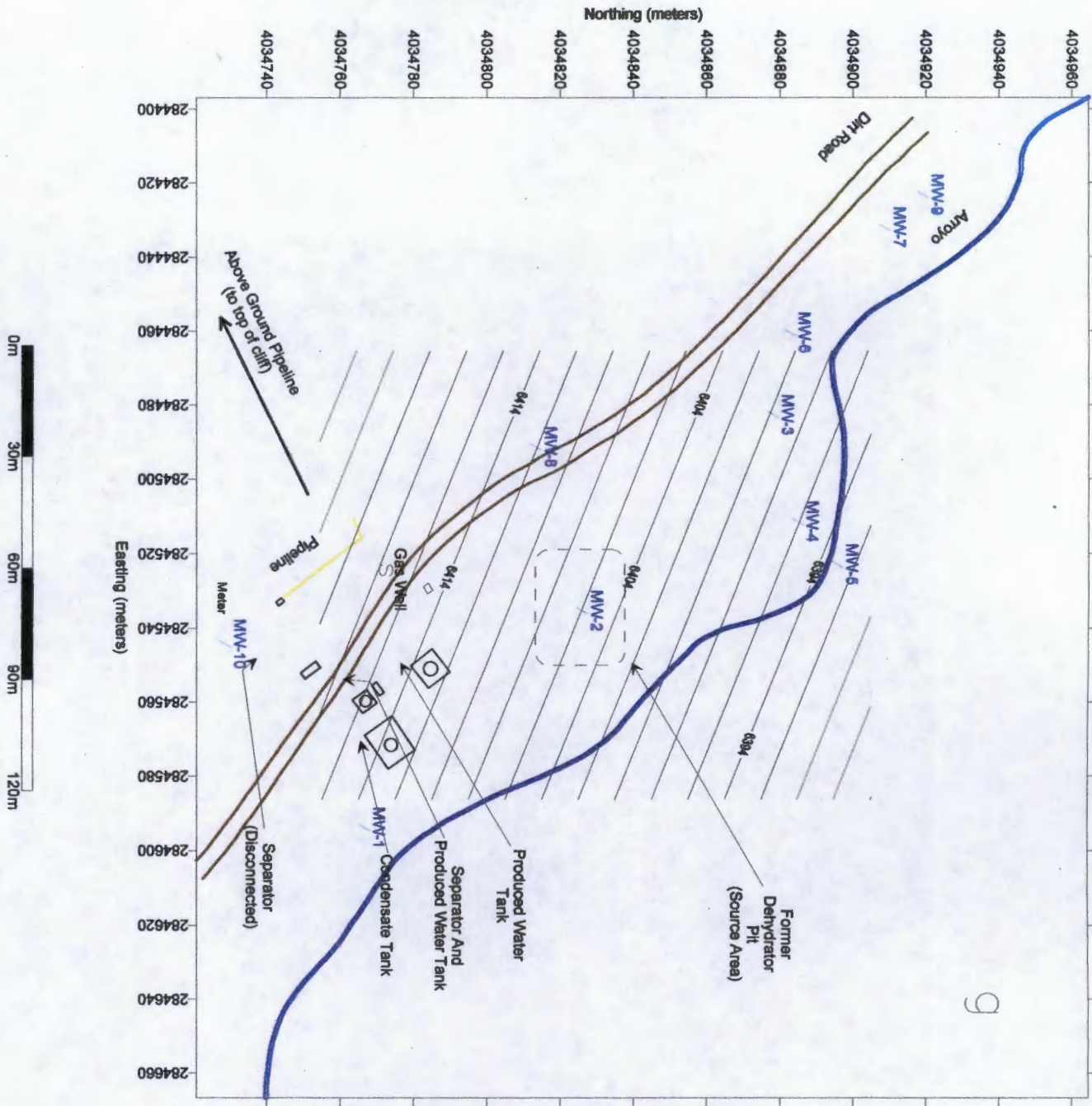


Figure 2
Potentiometric
Surface Map
Jicarilla Contract 147-6
(September 2011)

