

# Summary of OM&M Activities

Technical Advisory Committee Meeting

Operable Unit 2

Northrop Grumman Systems Corporation, Bethpage, New York

April 10, 2014

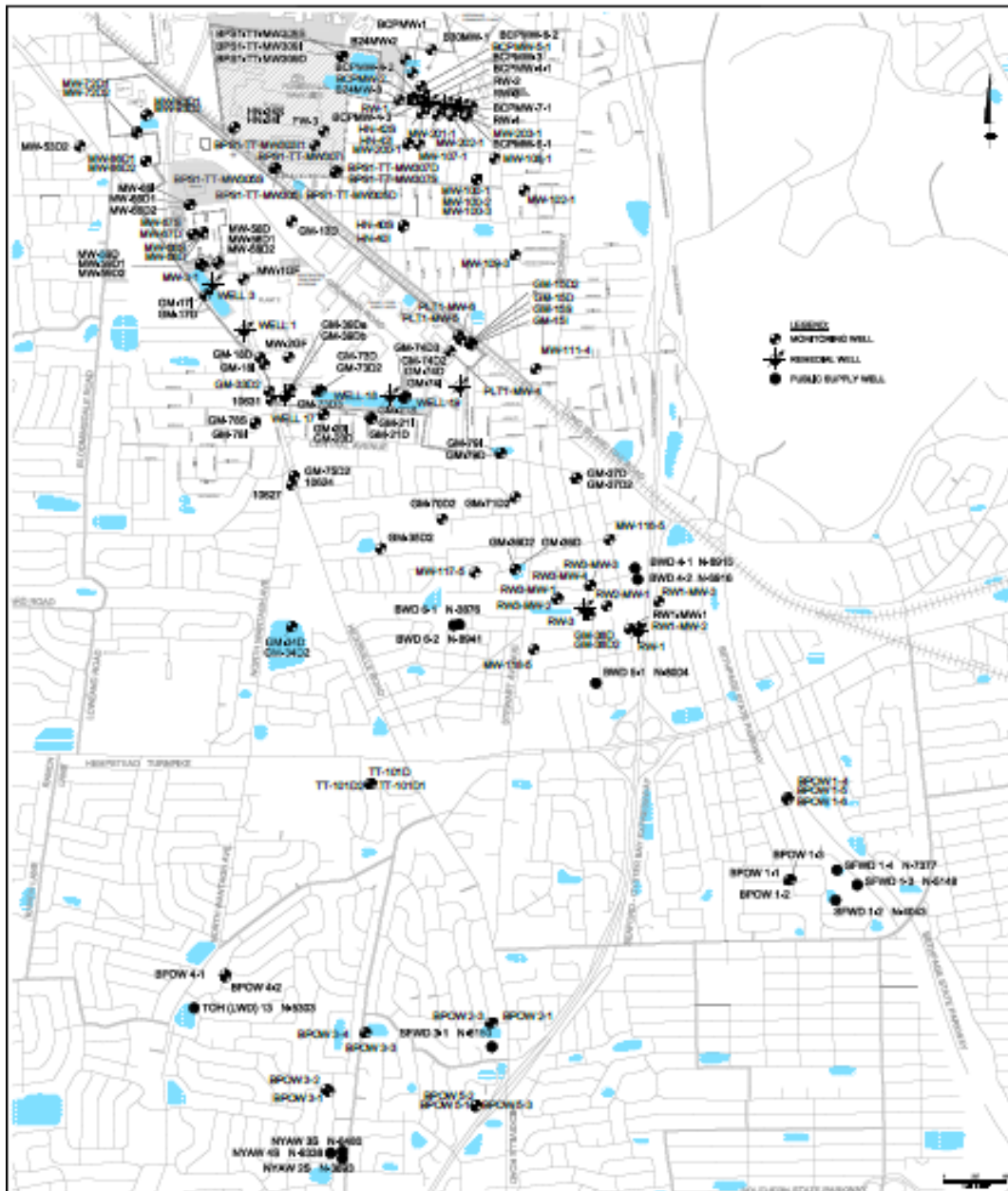


# Agenda Topics

- Comprehensive Groundwater Sampling
- Long-Term ONCT System Operation and Monitoring
- Reports in Progress
- Q&A

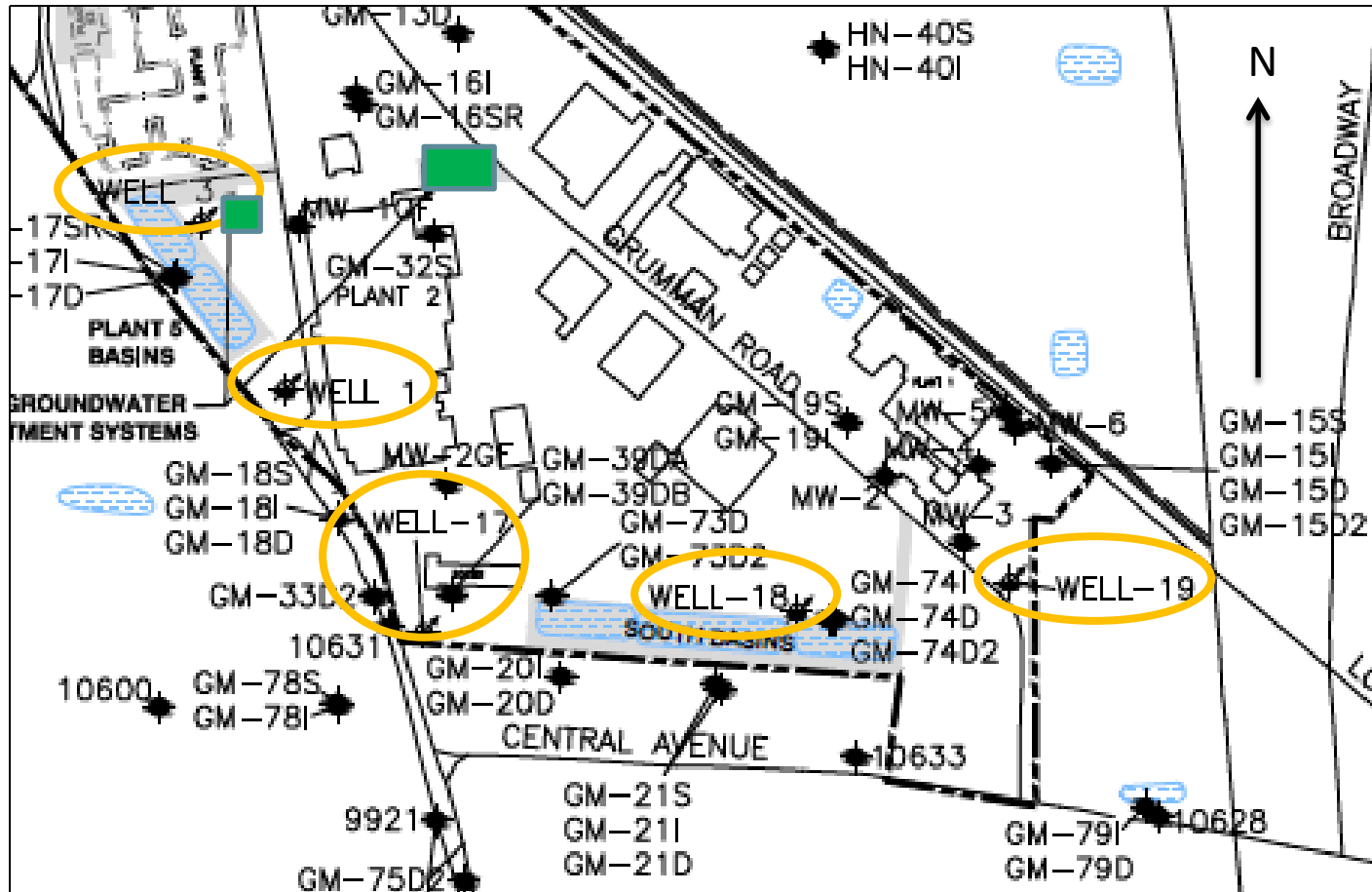
# Comprehensive Groundwater Sampling

- Performed from April to June 2013
- Total of 152 Wells Owned by Northrop Grumman, Navy and OCC/RUCO
- Total of eight water district well-fields (Bethpage, South Farmingdale, Town of Hempstead/Levittown, and New York American Water)
- Sampling Zones: Shallow, Intermediate, Deep, Deep2, and Deep3.
- Analytes: VOCs; subset also for Cd/Cr
- October 2013 - Tabulated results to NYSDEC
- April 2014 - NYSDEC request for report of results



Comprehensive Groundwater Sampling Locations

# Long Term ONCT System Operation and Monitoring

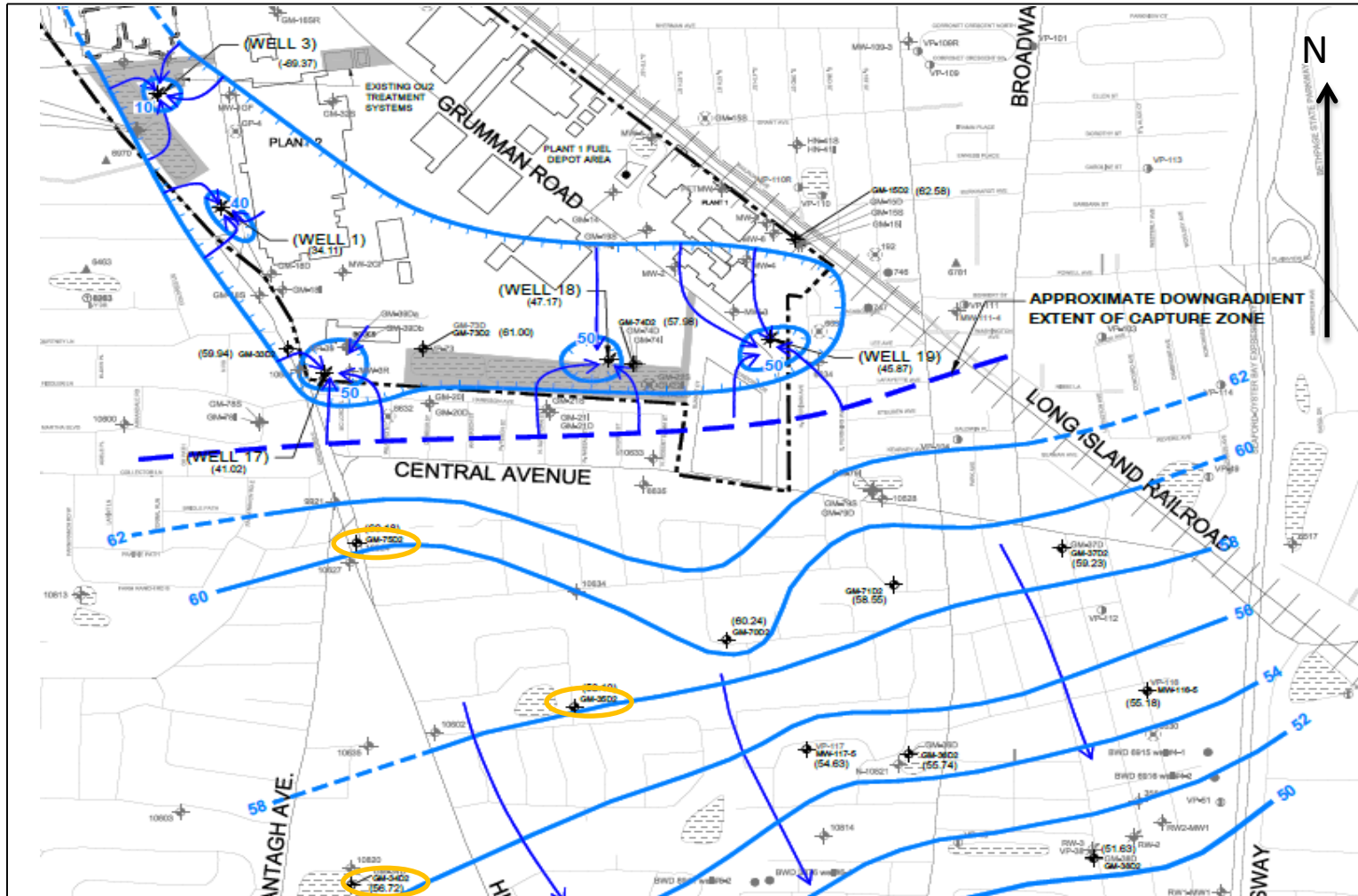


# ONCT System Performance Year 2012

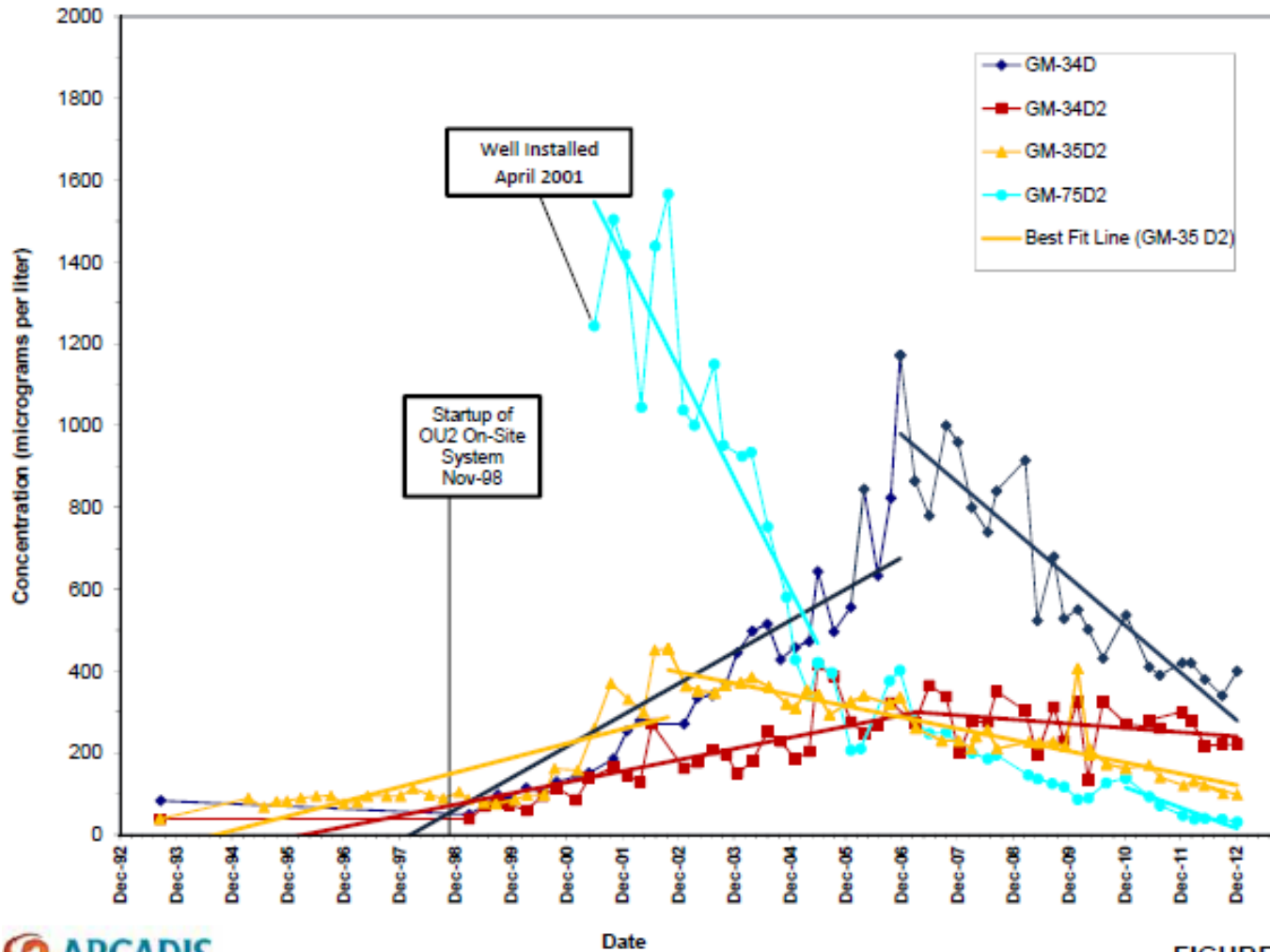
Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Fourth Quarter 2012, Year 2012, and Period of Record, Northrop Grumman Systems Corporation, Bethpage, New York. <sup>1</sup>

Identification	Flow Rates (gpm)		Quarterly Flow Volumes (MG)			Annual Flow Volumes (MG)			VOC Concentrations (ug/L)		VOC Mass Removed (lbs) <sup>(7)</sup>		
	Design <sup>(2)</sup>	Average <sup>(3,4)</sup>	Design <sup>(2)</sup>	Actual <sup>(3,4)</sup>	% of Design	Design <sup>(2)</sup>	Actual <sup>(3,4)</sup>	% of Design	TCE <sup>(5)</sup>	TVOC <sup>(5,6)</sup>	Quarterly	Annual	Cumulative
<b><u>Influent Groundwater</u></b>													
Well 1 <sup>(10)</sup>	800	812	112.9	112.3	99%	419.3	338.7	81%	410	478	449	1,318	34,841
Well 3 <sup>(11)</sup>	700	715	98.8	98.9	100%	366.9	354.0	96%	1,500	1,666	1,348	5,203	78,938
Well 17 <sup>(12)</sup>	1,000	1,060	141.1	130.1	92%	524.2	507.6	97%	230	280	298	1,131	48,848
Well 18 <sup>(12)</sup>	600	630	84.7	80.8	95%	314.5	317.6	101%	66	90	60	231	5,304
Well 19 <sup>(12)</sup>	700	709	98.8	91.0	92%	366.9	359.0	98%	180	217	161	646	5,811
<b>Total</b>	<b>3,800</b>	<b>3,926</b>	<b>536</b>	<b>513</b>	<b>96%</b>	<b>1,992</b>	<b>1,877</b>	<b>94%</b>	<b>--</b>	<b>--</b>	<b>2,316</b>	<b>8,529</b>	<b>173,742</b>
<b><u>Effluent Groundwater <sup>(8)</sup></u></b>													
Calpine	100 - 400	160	--	21.4	--	--	118.2	--	--	--	--	--	--
OXY Biosparge	14 - 54	3.7	--	0.5	--	--	1.0	--	--	--	--	--	--
West Recharge Basins	1,112 - 1,455	977	--	137.9	--	--	384.3	--	--	1.06	--	--	--
South Recharge Basins <sup>(12)</sup>	2,231	2,504	314.8	353.3	112%	1,169.4	1,373.4	117%	--	0.44	--	--	--
<b>Total</b>	<b>--</b>	<b>3,645</b>	<b>--</b>	<b>513</b>	<b>--</b>	<b>--</b>	<b>1,877</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b><u>Treatment Efficiencies <sup>(9)</sup></u></b>													
Tower 96 System Efficiency:	99.9%												
Tower 102 System Efficiency:	>99.9%												

# ONCT System Capture Zone – Year 2012



# TVOC Trends in Key Monitoring Wells





# Reports in Progress

- Phase 2 ONCT System Hydraulic Effectiveness Data Report
- ONCT System Periodic Review Report – Year 2013
- Report of Results of Comprehensive Groundwater Sampling

Questions?