



DEPARTMENT OF THE ARMY  
CAMP STANLEY STORAGE ACTIVITY, MCAPP  
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

June 7, 2018

U-038-18

SUBJECT: Annual Status Report (June 2017 to May 2018) of the AOC-65 Class V Remediation Infiltration Galleries and Injection Wells at Camp Stanley Storage Activity, Boerne, Texas, TCEQ Authorization No. 5X2600645; IHWCA#69026; CN602728206/RN100662840

Texas Commission on Environmental Quality  
Attn: Mr. Bryan Smith  
UIC Permits Team  
Radioactive Materials Division  
PO Box 13087 (MC233)  
Austin, Texas 78711-3087  
512/239-3150

Dear Mr. Smith:

The Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, U.S. Army Field Support Command, Army Materiel Command, U.S. Army, is submitting this semiannual report summarizing the injection activities performed at the on-post Area of Concern (AOC) 65 site. The injection activities performed are part of the AOC-65 In-Situ Chemical Oxidation (ISCO) remedial applications for treatment of chlorinated compounds in groundwater.

This annual letter provides a summary of activities for the months of June 2017 through May 2018 and includes a report of injection and associated ISCO activities conducted at AOC-65 during the past year as specified by the Texas Commission on Environmental Quality (TCEQ) Underground Injection Control (UIC) permit. The remediation activities performed during this period include the installation of 6 additional oxidant-infused paraffin wax cylinders in six injection wells located within AOC-65 and subsequent monitoring.

Injection activities associated with the Class V Injection Well Authorization No. 5X2600645 (amended November 13, 2017) during this reporting period have included oxidant application activities and groundwater monitoring. Groundwater samples were collected from existing monitoring wells, injection wells and infiltration galleries for VOCs, metals, anions (chloride and sulfate) analyses to track the progress of current ISCO applications. Additionally, water quality parameters (pH, DO, ORP, and conductivity) were also collected at monitoring wells. Sampling events were conducted in June, September, and December 2017, and March 2018. Monitoring events will continue quarterly, with the next monitoring event scheduled to take place in June 2018.

ISCO chemicals were applied during this reporting period following groundwater monitoring efforts performed in September 2017. Six additional oxidant-infused wax cylinders were installed in six injection wells (bringing the total to three per well) around the site. These wells include: VEW-19, VEW-27, VEW-32, SIW-01, TSW-01, and TSW-05. The cylinders consist of potassium permanganate, sodium persulfate, and paraffin wax in a ratio of 38:38:24. The cylinders are 18 inches long and either 2.5 inches or 1.35 inches in diameter. The 2.5-inch diameter cylinders each weigh 5.75 lbs and the 1.35-inch diameter cylinders each weigh 2.875 lbs. Cylinders were redistributed within the screened intervals on November 14, 2017, and an additional 1.35-inch diameter cylinder was installed in each of the six cylinder-installed wells during the redistribution effort. This passive approach to oxidant application allows for a sustained release of ISCO chemicals into groundwater under varying hydrologic conditions encountered throughout the year.

Additional injections are anticipated during the next twelve months to replace spent cylinders within the six wells currently in use and install cylinders in up to four additional existing/permitted wells. Up to eighteen 2.5-inch diameter cylinders and twelve 1.35-inch diameter cylinders will be deployed within ten wells at AOC-65 during the next reporting period. No new injection wells or infiltration cells are planned at this time.

Additionally, please update TCEQ Authorization No. 5X2600645 records to include a new mailing address (below) for CSSA's environmental services contractor, Parsons, for future correspondence regarding this UIC Authorization.

Parsons  
9101 Burnet Road, Suite 210  
Austin, TX 78758

If you have any questions regarding the specific ISCO application activities at CSSA, please feel free to contact me at 210-295-7416 or Adrien Lindley, Parsons at 512-719-6052, [adrien.lindley@parsons.com](mailto:adrien.lindley@parsons.com).

Sincerely,



Jason D. Shirley  
Installation Manager

cc: Felicia Kraintz, CSSA Environmental Manager  
Greg Lyssy, USEPA Region 6  
Julie Burdey, Parsons – Austin  
Ken Rice, Parsons – Austin  
File: 640149.110046.03000

Table 1  
Analytical Summary Data

**Table 1**  
**Camp Stanley Storage Activity AOC-65 ISCO Injection Summary**

Phase I through Phase V Injections  
 Injections Performed: May 2012 - November 2017

**May 2012 - Ancillary Phase I Injections** **216 ft<sup>3</sup> Sulfur Hexafluoride (SF<sub>6</sub>)**

Injection Location	Gaseous SF <sub>6</sub> (ft <sup>3</sup> )
SIW-01	46
Trench - Middle Zone	170

**August 2012 - Phase I Injections** **19,800 lbs Sodium Persulfate**

Oxidant - 10,500 gallons 20% persulfate solution  
 Activator - 4,500 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	1,500	640
Trench - Middle Zone	5,400	2,310
Trench - Lower Zone	3,500	1,500
SIW-01	100	50

**May 2013 - Phase II Injections** **44,000 lbs Sodium Persulfate**

Oxidant - 25,365 gallons 20% persulfate solution  
 Activator - 8,500 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	5,407	1,770
Trench - Middle Zone	10,770	3,520
Trench - Lower Zone	8,088	2,645
IIW-01	250	80
IIW-02	250	80
IIW-03	250	80
IIW-04	250	80
SIW-01	100	32

**September - November 2014 -**  
**Phase III Injections** **145,400 lbs Sodium Persulfate**

Oxidant - 76,265 gallons 20% persulfate solution  
 Activator - 27,000 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	16,170	5,717
Trench - Middle Zone	32,340	11,433
Trench - Lower Zone	24,255	8,574
IIW-01	925	325
IIW-02	925	325
IIW-03	925	325
IIW-04	665	240
SIW-01	60	25

Table 1 (cont.)

Camp Stanley Storage Activity AOC-65 ISCO Injection Summary

Phase I through Phase V Injections  
Injections Performed: May 2012 - November 2017

July 2015 - Ancillary Phase IV Injections		Dye Tracers
Injection Location	<1 lb powdered dye in water (gal)	
VEW-15 - Eosine	1	
VEW-32 - Fluorescein	1	
VEW-27 - Rhodamine WT	1	

August 2015 Phase IVa Injections                      3,500 gallons Sodium Permanganate  
Oxidant - 3,500 gallons Sodium Permanganate (0.44 mg/L)

Injection Location	Permanganate Solution (gal)
Northern Infiltration Cell (NIC)	1,000
Middle Infiltration Cell (MIC)	1,000
Southern Infiltration Cell (SIC)	1,000
Interior Vault Cell (eastern and western)	500 (250 each)

November 2015 Phase IVb Injections                      7,000 gallons Sodium Permanganate  
Oxidant - 3,500 gallons Sodium Permanganate (0.9 mg/L)

Injection Location	Permanganate Solution (gal)
Northern Infiltration Cell (NIC)	3,750
Middle Infiltration Cell (MIC)	1,250
Southern Infiltration Cell (SIC)	925
Interior Vault Cell (eastern and western)	1075 (537.5 each)

December 2016 Phase V Injections                      12 Oxidant-Infused Cylinders  
Oxidant - Sodium Persulfate/Sodium Permanganate in paraffin wax (38:38:24)  
2.5-inch or 1.35-inch diameter

Injection Location	Cylinders	
	lbs each oxidant/cylinder	total lbs oxidant
VEW-19 - 2.5-inch x2	2.185	8.74
VEW-27 - 1.35-inch x2	1.0925	4.37
VEW-32 - 2.5-inch x2	2.185	8.74
SIW-01 - 1.35-inch x2	1.0925	4.37
TSW-01 - 2.5-inch x2	2.185	8.74
TSW-05 - 1.35-inch x2	1.0925	4.37

November 2017 Phase V Injections (cont.)                      6 additional Oxidant-Infused Cylinders  
Oxidant - Sodium Persulfate/Sodium Permanganate in paraffin wax (38:38:24)  
1.35-inch diameter

Previously installed cylinders remain in wells

Injection Location	Cylinders	
	lbs each oxidant/cylinder	total lbs oxidant
VEW-19 - 1.35-inch (2.5-inch x2 prev.)	1.0925	2.185
VEW-27 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185
VEW-32 - 1.35 -inch (2.5-inch x2 prev.)	1.0925	2.185
SIW-01 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185
TSW-01 - 1.35-inch (2.5-inch x2 prev.)	1.0925	2.185
TSW-05 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185

## Field Forms



ISCO Sampling AOC-65

Personnel: Elliott & Oertel

Permit required samples shaded gray.  
**Bold = Performance Monitoring Samples**  
 candles installed

Well ID	TD / pump depth	Water Level (BTOC)	Sample Date	Sample Time	Temp. (°C)	Cond. (ms/cm <sup>2</sup> )	DO	pH	ORP
LS-5	NA								
LS-6	NA								
LS-7	NA								
OFR-3	NA								
RFR-10	NA								
RFR-11	NA								
CS-MW36-LGR	361.5		3/6/17	1027	22.06	0.880	1.80	6.78	264.8
CS-MW8-LGR	302			1058	21.77	0.665	1.13	6.67	256.8
CS-MW7-LGR	293			1148	21.42	0.685	0.79	6.65	245.0
CS-MW6-LGR	314			0852	21.64	0.590	1.34	6.82	304.4
AOC65-VEW13-LGR	41	34.59	4/3/17		22.79	1.659	1.17	6.79	-91.8
AOC65-VEW14-LGR	60.761	60.48		Dry					
AOC65-VEW15-UGR	13	7.22		1105	21.82	0.584	5.22	7.36	213.4
AOC65-VEW16-LGR	41	29.97			22.89	0.594	0.30	6.85	-72.7
AOC65-VEW17-LGR	52.5	51.11			22.78	0.745	0.89	6.73	-39.2
AOC65-VEW18-LGR	56	40.42		1200	23.04	5.1066	3.03	7.10	219.7
AOC65-VEW19-UGR	26	11.73		1045	pink / light purple; VOAs went clear				
AOC65-VEW20	25.7	11.22			22.33	0.643	2.56	7.43	204.2
AOC65-VEW21	27	13.69	3/23/17		22.47	0.614	3.37	7.10	315.2
AOC65-VEW22	50.5	49.41			20.49	0.599	4.02	6.77	241.8
AOC65-VEW23	21	21.15		Dry					
AOC65-VEW24	50.5	50.31							
AOC65-VEW25	21.5	21.75		1025	22.30	9.230	2.25	7.39	235.7
AOC65-VEW26	50	45.4	4/3/17		22.66	9.202	2.78	6.89	243.1
AOC65-VEW27	21	10.37	4/3/17	0955	medium purple / red; VOAs stayed red				
AOC65-VEW28A	120								
AOC65-VEW28B	179								
AOC65-VEW29	40	29.85	4/3/17	1120	23.14	0.646	2.10	6.75	118.7
AOC65-VEW30	24.5	24.24		Dry					
AOC65-VEW31	40	30.17		1135	23.06	1.150	0.94	6.68	48.8
AOC65-VEW32	24	10.81		1145	mauve; VOAs went clear; silt				
AOC65-VEW33	24.5	24.27							
AOC65-PZ01-LGR	132.35	113.71	3/23/17	0953	21.63	0.583	6.19	7.01	295.0
AOC65-PZ02-LGR	50.26	42.56		1043	22.33	3.5916	3.169	7.13	255.2
AOC65-PZ03-LGR	134.2	123.51			21.31	0.542	6.20	6.98	332.9
AOC65-PZ04-LGR	43.1	36.37			22.78	0.716	1.73	6.88	357.2
AOC65-PZ05-LGR	126.87	86.60		1040	21.70	0.382	8.40	7.02	261.5
AOC65-PZ06-LGR	43.64	36.40		0950	22.10	0.599	3.53	6.71	340.5
AOC65-TSW-01	40	32.60	4/3/17	1025	medium purple / red; VOAs went clear				
AOC65-TSW-02	40	31.51	4/3/17		22.72	4.099	0.90	6.64	-120.3
AOC65-TSW-03	40	28.73	3/23/17	1130	22.95	29.15	0.26	6.42	240.9
AOC65-TSW-04	40	28.84		1115	22.61	39.11	0.25	6.40	218.2
AOC65-TSW-05	40	29.92	4/3/17	1410	pink; VOAs went clear				
AOC65-TSW-06	51	35.87		1420	22.72	0.697	0.44	6.75	-56.3
AOC65-TSW-07	40	28.19	3/23/17	1100	22.41	4.666	0.25	6.50	-26.9
AOC65-TSW-01	25	13.50	4/3/17	1510	dark purple; VOAs turned light brown.				
AOC65-North-IC	4.2	Dry							
AOC65-Middle-IC	9.65	7.90		1450	purple; VOAs went clear				
AOC65-South-IC	11.77	8.68		1440	dark purple; VOAs stayed purple				

Temp 22.72

\* VEW 23; E-line covered in silt. Not enough water for sample.



ISCO Sampling AOC-65

Personnel: Elliot

Permit required samples shaded gray.

Bold = Performance Monitoring Samples

Well ID	TD/pump depth	Water Level ('BTOC)	Sample Date	Sample Time	Temp. (°C)	Cond. (ms/cm <sup>3</sup> )	DO	pH	ORP
LS-5	NA		6/5/17	0845	22.56	0.657	—	6.86	—
LS-6	NA			0810	22.45	0.741	—	6.66	—
LS-7	NA								
OFR-3	NA			0910	25.08	0.603	—	6.87	—
RFR-10	NA			0935	22.64	0.644	—	7.03	—
RFR-11	NA			1015	22.77	0.678	—	6.84	—
CS-MW36-LGR	361.5		6/8/17	1055	22.96	0.809	—	6.95	—
CS-MW8-LGR	302		6/8/17	1253	22.73	0.649	—	6.36	—
CS-MW7-LGR	293		6/15/17	0945	22.08	0.657	—	6.41	—
CS-MW6-LGR	314		6/8/17	0945	22.80	0.567	—	6.97	—
AOC65-VEW13-LGR	41	35.24	7/5/17		23.58	0.631	0.38	6.78	-107.8
AOC65-VEW14-LGR	61	60.47	↓		23.29	0.808	2.55	6.99	196.1
AOC65-VEW15-UGR	13	7.28	7/6/17	0855	24.11	0.672	0.20	7.13	252.1
AOC65-VEW16-LGR	41	29.95	↓		23.04	0.595	0.13	6.89	237.3
AOC65-VEW17-LGR	52.5	51.27	7/5/17		22.96	0.761	0.77	6.78	-113.6
AOC65-VEW18-LGR	56	46.68	7/6/17	0950	23.17	6.627	2.88	7.12	207.2
AOC65-VEW19-UGR	26		7/5/17	1355	layered pink top purple bottom;				VOAs went clear
AOC65-VEW20	25.7	12.03	7/5/17		22.60	0.655	1.24	7.23	130.7
AOC65-VEW21	27	14.11	↓		23.37	0.630	1.50	7.17	518.3
AOC65-VEW22	50.5	DRY	7/6/17						
AOC65-VEW23	21	20.9	↓						
AOC65-VEW24	50	DRY	↓						
AOC65-VEW25	21.5	18.71	7/5/17	0915	22.72	9.730	0.45	7.24	408.4
AOC65-VEW26	50	47.71	↓		23.11	9.301	1.97	6.78	286.3
AOC65-VEW27	21	11.97	↓	1345	dark purple;				VOAs turned brown
AOC65-VEW28A	120								
AOC65-VEW28B	179								
AOC65-VEW29	40	31.45	7/6/17	0910	23.12	0.747	0.11	6.84	-317.9
AOC65-VEW30	24.5	24.4	↓						
AOC65-VEW31	40	30.15	↓	0920	23.16	1.592	0.44	6.66	-111.6
AOC65-VEW32	24	10.83	↓	0932	dirty brown;				VOAs stayed brown went clear
AOC65-VEW33	24.5	24.28	↓						
AOC65-PZ01-LGR	132.35	116.78	7/5/17	0855	22.79	0.592	9.30	7.11	446.6
AOC65-PZ02-LGR	50.26	46.20		0930	22.65	4.461	3.84	7.04	385.2
AOC65-PZ03-LGR	134.2	126.02			22.73	0.524	9.96	7.04	581.9
AOC65-PZ04-LGR	43.1	36.43			22.44	0.700	5.37	6.84	555.0
AOC65-PZ05-LGR	126.87	112.81		0950	23.42	0.748	12.64	7.05	351.4
AOC65-PZ06-LGR	43.64	36.50		0835	22.69	0.592	5.06	6.85	516.8
AOC65-TSW-01	40	32.70		1320	dark purple;				VOAs turned brown
AOC65-TSW-02	40	31.79			23.13	4.111	0.49	6.40	-214.5
AOC65-TSW-03	40	28.60		1245	23.26	23.91	0.55	6.33	242.3
AOC65-TSW-04	40	28.52	↓	1025	22.77	31.44	0.46	6.34	261.8
AOC65-TSW-05	40	29.99	7/6/17	1020	light pink to clear				layered; VOAs went clear
AOC65-TSW-06	51	35.94	↓	1005	22.81	0.702	0.70	6.92	-233.9
AOC65-TSW-07	40	28.14	7/5/17	1010	22.48	6.543	2.89	6.57	130.2
AOC65-SIW-01	25	15.55	↓	1100	layered pink to purple;				VOAs went clear
AOC65-North-IC	4.2	DRY							
AOC65-Middle-IC	9.65	8.05	↓	1050	purple;				VOAs turned brown
AOC65-South-IC	11.77	8.75	↓	1035	dark purple;				VOAs stayed purple



ISCO Sampling AOC-65

Personnel: Elliott & Dietert

Permit required samples shaded gray.  
 Bold = Performance Monitoring Samples  
 candles installed

Well ID	TD / pump depth	Water Level ('BTOC)	Sample Date	Sample Time	Temp. (°C)	Cond. (ms/cm <sup>3</sup> )	DO	pH	ORP
LS-5	NA	/	9/21/17	0915	22.52	0.640	3.31	6.87	61.3
LS-6	NA	/		0942	21.85	0.685	2.13	6.79	62.2
LS-7	NA	/		0855	22.81	0.660	3.14	6.76	63.2
OFR-3	NA	/	9/27/17	0825	24.33	0.592	0.79	6.95	496.2
RFR-10	NA	/	9/21/17	1115	22.70	0.633	3.77	6.88	26.0
RFR-11	NA	/		1145	22.85	0.614	2.40	6.92	28.2
CS-MW36-LGR	361.5	/	9/22/17	1008	22.72	0.833	6.57	7.07	-18.6
CS-MW8-LGR	302	/		1030	22.55	0.660	3.29	6.83	-24.5
CS-MW7-LGR	293	/		1050	22.03	0.673	3.36	6.81	-21.4
CS-MW6-LGR	314	/	9/22/17	0937	22.35	0.574	6.00	6.96	-25.5
AOC65-VEW13-LGR	41	35.70	10/5/17	-	22.91	0.668	1.09	6.71	-14.5
AOC65-VEW14-LGR	61	60.47	10/5/17	-	22.84	0.839	4.07	6.96	185.4
AOC65-VEW15-UGR	13	7.17	10/5/17	0937	26.19	0.697	0.12	7.04	-53.2
AOC65-VEW16-LGR	41	29.93	10/5/17	-	22.78	0.600	0.08	6.78	-71.1
AOC65-VEW17-LGR	52.5	51.71			22.94	0.004	5.93	6.76	67.5
AOC65-VEW18-LGR	56	39.48	10/5/17	1015	23.16	7.077	2.83	7.11	12.4
AOC65-VEW19-UGR	26	13.30	10/6/17	1110	pink	10-25			
AOC65-VEW20	25.7	12.59	10/5/17		23.30	0.700	0.08	7.16	-52.4
AOC65-VEW21	27	13.50	10/4/17		22.98	0.163	0.43	6.96	326.0
AOC65-VEW22	50.5	49.45			22.82	0.645	5.40	6.57	282.1
AOC65-VEW23	21	19.86		1440	23.56	1.597	4.97	6.85	224.0
AOC65-VEW24	50	50.61		DAY					
AOC65-VEW25	21.5	16.25		1455	23.25	10.65	0.77	7.09	221.1
AOC65-VEW26	50	47.99	10/5/17		22.89	9.537	2.24	6.73	174.5
AOC65-VEW27	21	8.30	10/6/17	1138	dark pink	25-50			
AOC65-VEW28A	120								
AOC65-VEW28B	179								
AOC65-VEW29	40	30.88	10/5/17	0950	23.09	0.703	0.01	6.76	-281.5
AOC65-VEW30	24.5	24.2		Dry					
AOC65-VEW31	40	30.15	10/5/17	1000	23.08	0.965	0.34	6.70	-95.6
AOC65-VEW32	24	8.50	10/6/17	0913	light pink	5-10			
AOC65-VEW33	24.5	24.25	10/5/17	Dry					
AOC65-PZ01-LGR	132.35	118.21	10/4/17	1429	23.27	0.563	7.72	7.05	260.1
AOC65-PZ02-LGR	50.26	41.6		1512	22.51	5.065	5.50	7.01	224.7
AOC65-PZ03-LGR	134.2	127.40	10/4/17		22.75	0.533	6.47	6.83	392.1
AOC65-PZ04-LGR	43.1	36.41	10/4/17		22.86	0.725	3.72	6.59	456.4
AOC65-PZ05-LGR	126.87	100.45		1509	24.14	1.314	5.19	6.76	239.4
AOC65-PZ06-LGR	43.64	30.36	10/4/17	1410	22.74	0.598	4.76	6.68	295.6
AOC65-TSW-01	40	31.85	10/6/17	1025	light pink	5-10			
AOC65-TSW-02	40	31.65	10/5/17	-	22.90	3.947	0.14	6.42	-285.2
AOC65-TSW-03	40	28.52	10/5/17	0850	22.92	19.95	0.20	6.49	51.5
AOC65-TSW-04	40	28.44	10/5/17	0835	22.58	37.09	0.63	6.41	54.5
AOC65-TSW-05	40	29.28	10/6/17	1010	faint pink	(1-5)			
AOC65-TSW-06	51	35.90	10/5/17	1035	22.62	0.707	0.85	6.78	-245.6
AOC65-TSW-07	40	38.13	10/5/17	0820	22.35	8.301	0.06	6.52	-45.5
AOC65-SIW-01	25	13.20	10/6/17	0825	dark purple				
AOC65-North-IC	4.2	DRY	10/5/17						
AOC65-Middle-IC	9.65	7.31		1165	same				
AOC65-South-IC	11.77	8.21		1050	stratified clear at top dark purple at bottom				

unit

SF

SF







ISCO Sampling AOC-65

Personnel: Elliott + Detert

Permit required samples shaded gray.  
**Bold = Performance Monitoring Samples**  
**candles installed**

Well ID	TD / pump depth	Water Level ('BTOC)	Sample Date	Sample Time	Temp. (°C)	Cond. (ms/cm <sup>2</sup> )	DO	pH	ORP
LS-5	NA	/	3/6/18	0855	22.44	0.630	/	6.97	/
LS-6	NA	/		0425	22.40	0.639	/	6.93	/
LS-7	NA	/		0830	22.54	0.648	/	6.85	/
OFR-3	NA	/		1053	24.30	0.582	/	7.05	/
RFR-10	NA	/		1023	22.57	0.630	/	6.98	/
RFR-11	NA	/		0458	23.47	0.597	/	7.03	/
CS-MW36-LGR	361.5	/	3/5/18	0905	22.09	0.650	/	6.97	364.3
CS-MW8-LGR	302	/		0435	21.75	0.659	/	6.98	344.9
CS-MW7-LGR	293	/		1053	21.45	0.684	/	6.94	341.1
CS-MW6-LGR	314	/		0828	22.06	0.583	/	7.04	344.4
AOC65-VEW13-LGR	41	35.51	3/12/18		22.97	0.569	0.51	6.89	-86.4
AOC65-VEW14-LGR	61	60.5	↓		22.10	0.609	3.84	7.22	268.8
AOC65-VEW15-UGR	13	7.28	3/12/18	1245	20.35	0.410	16.00	7.41	281.9
AOC65-VEW16-LGR	41	29.96	↓		23.00	0.510	5.56	6.84	295.5
AOC65-VEW17-LGR	52.5	51.65	↓		22.69	0.633	3.00	6.87	257.7
AOC65-VEW18-LGR	56	44.88	↓	1735	23.02	5.113	5.64	7.19	257.6
<b>AOC65-VEW19-UGR</b>	26	11.95	3/13/18	1305					
AOC65-VEW20	25.7	13.79	3/12/18		22.57	0.555	2.14	7.36	219.9
AOC65-VEW21	27	13.74	↓		22.71	6.510	3.74	7.33	464.3
AOC65-VEW22	50.5	DRY							
AOC65-VEW23	21	DRY							
AOC65-VEW24	50	DRY							
AOC65-VEW25	21.5	18.90	3/12/18	0930	22.77	7.838	9.94	7.42	409.6
AOC65-VEW26	50	48.07	↓		22.96	18.27	0.81	6.47	-13.5
<b>AOC65-VEW27</b>	21	11.65	3/13/18	1255					
AOC65-VEW28A	120								
AOC65-VEW28B	179								
AOC65-VEW29	40	31.48	3/12/18	1300	23.03	0.561	4.76	6.84	-68.2
AOC65-VEW30	24.5	24.21	↓						
AOC65-VEW31	40	30.15	↓	1310	23.08	0.728	1.43	6.81	144.8
<b>AOC65-VEW32</b>	24	10.25	3/13/18	1320					
AOC65-VEW33	24.5	24.25	3/12/18						
0910 - AOC65-PZ01-LGR	132.35	119.89	3/12/18	0910	22.18.24	0.412	7.24	7.28	428.4
AOC65-PZ02-LGR	50.26	45.31	3/12/18	0940	22.04	3.259	4.86	7.12	405.1
AOC65-PZ03-LGR	134.2	128.41	↓		19.97	0.440	7.48	6.93	509.4
AOC65-PZ04-LGR	43.1	36.47	↓		21.89	0.589	2.80	6.78	555.1
AOC65-PZ05-LGR	126.87	115.78	3/12/18	0945	19.33	0.605	6.53	7.04	389.0
0902 - AOC65-PZ06-LGR	43.64	36.36	03/12/18	0900	22.80	0.524	3.62	6.78	459.4
<b>AOC65-TSW-01</b>	40	23.74	3/13/18	1240					
AOC65-TSW-02	40	31.85	3/12/18		22.97	2.605	0.21	6.56	42.9
AOC65-TSW-03	40	28.56	↓	1040	22.96	18.27	0.81	6.97	-13.5
AOC65-TSW-04	40	28.52	↓	1030	22.57	24.12	0.36	6.41	33.1
<b>AOC65-TSW-05</b>	40	30.05	3/13/18	1410					
AOC65-TSW-06	51	35.90	3/12/18	1350	22.61	0.575	0.33	6.90	-38.6
AOC65-TSW-07	40	28.18	↓	1010	22.47	6.232	0.95	6.61	-13.5
<b>AOC65-SIW-01</b>	25	13.43	3/13/18	1340					
AOC65-North-IC	4.2								
AOC65-Middle-IC	9.65	7.70	3/13/18	1430					
AOC65-South-IC	11.77	8.48	↓	1440					

265.9

light pink

grey/black