Dynamic Flow and Chemistry Profiling Report [redacted]

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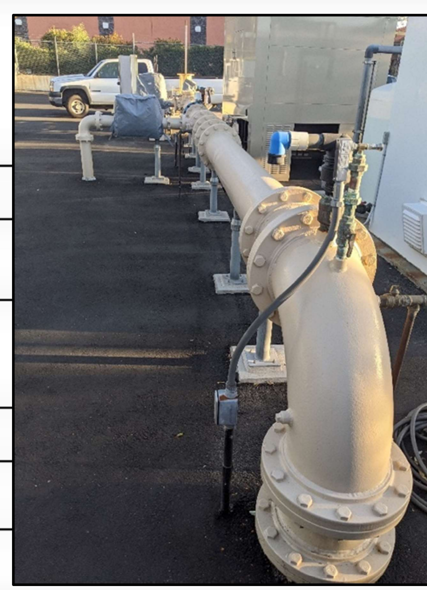

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Summary

This report details field work and data gathering activities, including standard operating procedures, data analysis methods and results of the dynamic flow and water quality chemistry profile conducted at [redacted] by BESST Inc. (BESST) from December 15th through 16th, 2020, in [redacted].

The main objective of the dynamic, steady-state, downhole profiling investigation at Well [redacted] was to identify the flow contributions and depth-dependent chemical distributions of arsenic and total dissolved solids (TDS). The dynamic profile was completed at the pumping rate of 1550 gallons per minute (GPM).

Prior to the start of onsite field work, an injection and sampling plan (ISP) was prepared based on the well construction, hydrogeological and lithological information, and observations from BESST's access survey that was completed on December 3rd, 2020. A total of twenty-four flow measurements were collected using BESST's proprietary version of the USGS tracer flowmeter, and twelve depth-dependent groundwater samples were collected using the BESST HydroBooster sampling pump. Groundwater samples were analyzed by [redacted]. Additionally, two wellhead samples, one before and one after the downhole sampling, were collected from the discharge line downstream from the wellhead.

Field methods and the details of flow and chemistry calculations are explained in the Methodology section. Results and ramifications for the zonal flow and chemical contributions for the analytes of concern are presented in the Results and Discussions section. Possible modification scenarios are discussed in the Conclusions and Recommendations section. Tabulated details of these results, measured laboratory concentrations, and additional information are included in Appendices A-G.

Background Information

Study Area Location and Well Characterization

Well [redacted] is located at [redacted] and serves a drinking well to [redacted]. According to the well records provided by [redacted], Well [redacted] was constructed in 2017 and completed to a depth of 1009 feet below ground surface (Ft. BGS). The well casing is 18-inch (in) inner diameter (ID) Spiral Weld Stainless Steel with a single 0.094 in louvered screen sections from 500 to 989.1 Ft. BGS. The pump is set at 486.67 Ft. BGS, with pump bowls ranging between 466.67 to 476.67 Ft. BGS and includes a 10-ft engineered pump suction pipe and 2-ft wire wrapped intake screen.

Table 1 and Figure 2 below specify the well construction details along with lithology information and the ISP executed during the fieldwork.

Table 1: Well Information Chart.

Well Information	**Diameter (ID/OD) (In.)**	**GPM**	**Depth (Ft. BGS)**
Type of Pump	*Line Shaft Turbine*		
Total Well Depth	18 ID		595
Access Pipe	2 ID		--
Pump Column	12 OD		264
Bottom Pump Intake			488.67
Static Water Level			94.1
Pumping Water Level*			352.5
Pumping Rate*		1550	
Casing and Well Screen Intervals	**Depth (Ft. BGS)**		**Depth (Ft. BGS)**
Blank	0	to	500
Perforated (Louver 0.094)	500	to	989.1
Sump/Blank	989.1	to	1009

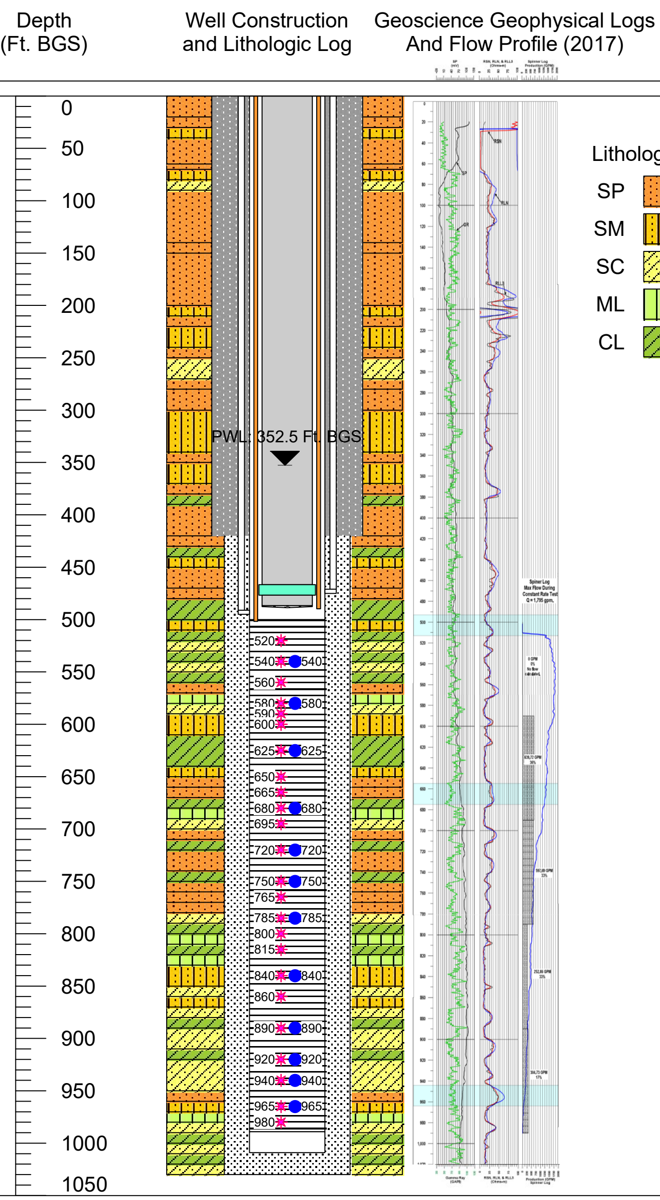
This chart denotes inches as in., gallons per minute is GPM, and feet below ground surface is Ft. BGS.

**** During the time of testing.***

[redacted]

Well Information

Casing: 18" I.D. 0-500, and 989.1-1009 Ft. BGS
Screen Section: 18" I.D. 500-989.1 Ft. BGS
Pump Column: 10.75" O.D. 0-466.67 Ft. BGS
Pump Bowls: 13.6" O.D. 466.67-476.67 Ft. BGS
Pump Suction Pipe: 10.0" O.D. 476.67-486.67 Ft. BGS
Cone Strainer: 10" O.D. 486.68-488.67 Ft. BGS
Access Pipe 1: 1.66" O.D. 0-489.67 Ft. BGS
Access Pipe 2: 1.66" O.D. 0-501.67 Ft. BGS
Sounding Tube 1: 2.067" I.D. 0-471 Ft. BGS
Sounding Tube 2: 2.067" I.D. 0-491 Ft. BGS



Lithology

- SP – Poorly Graded Sand
- SM – Silty Sand
- SC – Clayey Sand
- ML – Silt (Low Plasticity)
- CL – Clay (Low Plasticity)

Well Construction

- Blank Casing
- Sounding Tube
- Screen
- Cement
- Pump Column
- Pump Bowls
- Cone Strainer
- Gravel Pack
- Access Pipe

- Injection
- Sample

Dye Tracer Injection Depth (Ft. BGS)	Sample Depth (Ft. BGS)
520	--
540	540
560	--
580	580
590	--
600	--
625	625
650	--
665	--
680	680
695	--
720	720
750	750
765	--
785	785
800	--
815	--
840	840
860	--
890	890
920	920
940	940
965	965
980	--

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Figure 1: Well construction and lithology information for Well [redacted]. The injection and sampling plan used during this profile is also included as a chart on the right-hand side.

Methodology

Dynamic Flow Profile

Summary

Prior to on-site field work, a tracer injection and sampling plans (ISPs) was prepared for Well [redacted] based on the well construction specifications (Figure 2). The plan was then implemented by our hydrogeological field team in gathering depth specific flow data, groundwater samples, and periodically recording drawdown levels and the pumping rate to ensure that steady-state conditions were satisfied. The pumping water level (PWL) was measured at 352.5 Ft. BGS during the dynamic profiling.

The dynamic profile was conducted at an average pumping rate of 1,550 gallons per minute (GPM) on December 15th and 16th, 2020 and was monitored using the onsite flowmeter. Groundwater levels and flowmeter measurements were recorded after each completed dye injection and sampling depth using a dedicated pressure transducer. The dye tracer used for measuring flow is Formulabs rhodamine red FWT 50. The FWT 50 tracer has been safely used for decades and is approved by the National Sanitation Foundation (NSF 60) for use in potable drinking water systems.

There are two 2-inch ID camera tubes available at the wellhead. The dynamic flow injection method consisted of deploying high pressure nylon tubing through the camera tube located on the well pad's northwest side. The tubing was fully loaded with the rhodamine tracer prior to testing and was continuously refilled through an electronically controlled hydraulic reloading system. The tracer was released on command by a surface-based timer control unit at each depth. The timer control unit was programmed to control the volume and duration of each injection.

Upon completing the field preparation of the system, the tubing was deployed to the first injection depth below the pump at 520 Ft. BGS. Each injection and sampling depth were recorded with a mechanical counter through which the tubing was fed as it was being lowered into the well. After reaching each injection depth, the injection button was depressed, releasing approximately 100 ml of tracer into the well through an injection nozzle outfitted with multiple-sideways injection ports. The injection pressure spreads the tracer sideways, throughout the cross-sectional plane of the well at each injection depth. The time of release was recorded manually on a standardized log form and electronically by a laptop computer. Following each injection, the tracer is instantly pulled towards the pump intake and the time travel of each return to the fluorometer used to calculate in-well flow velocities. The inflow for each zonal interval was then calculated from sequentially paired velocity measurements.

The "Sideways Injection" (patented) as referenced above, is essential to acquiring accurate velocity measurements. The process consists of releasing the tracer sideways and simultaneously through circumferentially spaced, multiple holes embedded in the tracer injection nozzle – where the entire cross-sectional flow area inside the well is covered at any given injection depth. Since tooling centralization for flowmeter surveys is required (Smolen, 1997, Maliva, 2016) and tooling cannot be easily centralized when the pump is inside the well, the "Sideways Injection" method compensates for standard decentralization of spinner tooling by instantly spreading throughout the cross-sectional plane of the pipe. A complete measurement of pipe flow at any depth is therefore achieved whereby velocity calculations within turbulent and laminar flow regimes include simultaneous measurement of the boundary, transitional and axial flow pipe flow.

Downhole flow velocities were calculated as the change in feet between sequential injection points divided by the change in tracer return times to a surface fluorometer. The data was then used to calculate cumulative flows at each tracer injection depth. The algebraic difference between sequential cumulative flows equals the zonal flow contribution entering the well between the injection points. This calculation was performed iteratively throughout the well profile to estimate the flow contribution within each interval (in GPM and in percent of the total contribution). The calculated flow data under both pumping rates are tabulated in Appendix B.

Calculations for Flow Contribution

Calculations were based upon the well information provided by the pump installation company and field survey results Q_n (depth-dependent cumulative flow value). Up to three measurements were collected at each discrete depth to determine an average cumulative flow.

Q_n (GPM): depth-dependent cumulative flow value,

$\Delta Q_{n,n+1}$ (GPM): zonal flow contribution between depths n and n+1,

V_n (Ft./min): depth-dependent velocity value,

A (Ft.^{2}): well cross-sectional area,

C: constant conversion factor (ft^3/min) to GPM,

r_{cas} (Ft.): well casing inner radius,

r_{col} (Ft.): outer radius of pump column,

d_{n+1} (Ft.): upstream injection depth,

d_n (Ft.): downstream injection depth,

t_{n+1} (min): return time of d_{n+1},

t_n (min): return time of d_n.

a) Velocity (Ft./min):

1. $v_n = \frac{(d_a - d_b)}{(t_b - t_a)}, \frac{(d_b - d_c)}{(t_c - t_b)}, \frac{(d_c - d_d)}{(t_d - t_c)}, \ldots, \frac{(d_n - d_{n+1})}{(t_{n+1} - t_n)}$
   for depths below pump intake, d_n, d_{n+1}, …, are calculated down and away from the intake.

b) Well Cross-Sectional Area (Ft.^{2}):

2. $A = \pi {r_{cas}}^2$ for zonal areas below the pump intake.

c) Cumulative Flow (GPM):

3. $Q_n = (v_a * A * C), (v_b * A * C), (v_c * A * C), \ldots, (v_n * A * C)$

d) Zonal Flow Contribution (GPM):

4. $\Delta Q_{n,n+1} = (Q_a - Q_b), (Q_b - Q_c), (Q_c - Q_d), \ldots, (Q_n - Q_{n+1})$

Dynamic Chemistry Profile

Summary

The chemistry profile was performed with a high-pressure pump consisting of two conjoined HDPE tubes that were connected to a proprietary gas drive pump called the HydroBooster. The pump was developed by BESST, Inc. under a research and development contract from the USGS in 2002, and was used to collect all downhole groundwater samples during the survey. The HydroBooster pump employs a gas-drive purging and sampling process that is differentiated from an air-lift system by the fact that there is no gas introduced into the stream during sample collection. In contrast to air lifting, a gas-drive pump allows the gas to forcefully push onto the back end of the water column inside the gas-in tubing line and drives the water column through a U-turn inside the pump when under pressure. The pneumatic pressure of the gas forces the foot valve to sit and seal against an O-ring located near the base of the pump during the purge and sample cycle, while simultaneously driving water in the gas-in line to seamlessly join the water column inside the sample return line. The two combined volumes rise inside the sample return line while under pressure and exit the sample return line at the surface. Groundwater exiting the sample return line, flows in a smooth continuous stream until all the water volume from both lines are evacuated from the system. The gas pressure is then bled off by switching a three-way valve at the surface that allows both the gas-in and sample return lines to recharge with groundwater from the sample collection depth under hydrostatic pressure.

All downhole samples at Well [redacted] were collected using the Fast Purge Mode (FPM) of the HydroBooster pump. The FPM was performed three times at each sample depth, where all the groundwater inside the gas-in and sample return line tubing were cleared in a single pump stroke. The first purge cycle cleared the water from the previous sampling depth that was carried down to the new sampling depth. The second purge cycle cleared the water from the new sampling depth; essentially flushing the tubing internally with groundwater from the new depth. The third and final purge cycle was finally used for sample collection at the surface.

For [redacted], the downhole groundwater survey involved collecting twelve depth-dependent samples between 540 and 965 Ft. BGS at 1,550 GPM. Sampling depths were based on the well construction, geology, and borehole geophysics. Two wellhead samples, representing blended composites of depth-dependent chemical mass contribution from each contributing flow interval, were collected from the discharge tap of the well; the first one before downhole sampling started, and the second one following the completion of the downhole sampling. Once collected, groundwater samples were sent to [redacted] for analysis. The laboratory results for each tested analyte are presented in a table in Appendix B.

Water Quality Data Analytes

- Arsenic
- TDS

Flow-Weighted Concentration Derivations from Laboratory Results

Estimates of analyte concentrations within the formation materials surrounding the well screen, were derived from the laboratory chemistry results for each of the depth-dependent groundwater samples. The standard mass balancing procedure used to derive these estimates is called flow-weighting. The flow-weighting calculation assumes constant mixing inside the well as groundwater moves towards the pump intake. Estimations of the average zonal chemical contributions in the formation were calculated from the cumulatively blended contributions inside the well between any two vertically-paired, consecutive water samples. The flow-weighting calculation takes the difference in products (cumulative flow x cumulative chemistry) between any two depths and divides this difference by the zonal flow contribution from the same interval. After the mass balance results were calculated for each interval, the sum of these results was then compared to the average of the actual wellhead concentration on a percent agreement basis. The flow-weighting calculations used in the chemical analysis of Well [redacted] are presented below.

a) Zonal Chemical Contribution Concentrations:

Q_n (GPM)= depth-dependent cumulative flow value,

$\Delta Q_{n,n+1}$ (GPM)= zonal flow contribution between depths n and n+1,

C_n= depth-dependent lab concentration value,

$\Delta C_{n,n+1}$= zonal chemical concentration between depths n and n+1,

5. $$\Delta C_{n,n+1} = \frac{(Q_a * C_a)-(Q_b * C_b)}{(\Delta Q_{ab})}, \frac{(Q_b * C_b)-(Q_c * C_c)}{(\Delta Q_{bc})}, \frac{(Q_c * C_c)-(Q_d * C_d)}{(\Delta Q_{cd})}, \frac{(Q_n * C_n)-(Q_{n+1} * C_{n+1})}{(\Delta Q_{n,n+1})}$$

b) Theoretical Average Analyte Chemistry:

C_{tot} = composite sample collected at the wellhead tap,

C_{avg}= average analyte chemistry for all depth intervals to the n^{th} degree,

Q_{tot}= total cumulative discharge flowing out of the well,

6. $$C_{avg} = \frac{(\Delta Q_{ab} * \Delta C_{ab})+(\Delta Q_{bc} * \Delta C_{bc})+(\Delta Q_{cd} * \Delta C_{cd})+\cdots+(\Delta Q_{n,n+1} * \Delta C_{n,n+1})}{Q_{tot}}$$

Results and Discussions

Well [redacted] Dynamic Flow and Chemistry Results Overview

The single screened interval of Well [redacted] is 489.1-ft long and surrounded by low permeable deposits of clay and silt interbedded with poorly-graded sand layers. As a result, zonal flow contributions between 500 and 989.1 Ft. BGS vary greatly depending on the permeability of the individual layer surrounding each interval.

According to the zonal flow results, main production is supplied between 500 and 720 Ft. BGS with a cumulative flow of 1063 GPM (69% of total flow) with a flow density of 4.83 GPM/Ft. The remaining production of 487 GPM (31% of total flow) is contributed from 720 Ft. BGS to the screen bottom at 989.1 Ft. BGS, with a flow density of 1.81 (GPM/Ft.).

The chemistry investigation of Well [redacted] shows that the arsenic concentration at the wellhead averages 11 ug/L, which is over the Federal and State maximum contaminant limit (MCL) of 10 ug/L. The wellhead average concentration for TDS is 296 mg/L.

Well [redacted] Dynamic Flow Profile Results

Zonal flow results are presented in Figures 3 through 7. The highest flow contribution is calculated to be within the first interval of 500 – 520 Ft. BGS at 228 GPM (comprising 15% of total flow). This is an inferred value because the tracer injections start at 520 Ft. BGS. The second most productive zone is between 665 and 680 Ft. BGS, contributing 189 GPM (12% of total flow) with a flow density of 12.6 GPM/Ft.

The remaining intervals each produce less than 10% of total flow, where the geology is dominated by clays and silts and fine-grained sands.

Well [redacted] Zonal Chemistry Results

Figures 8 and 9 show zonal plots of calculated concentration distributions for arsenic and TDS against depth and zonal flow. In terms of arsenic distribution, Well [redacted] can be divided into two distinct sections: the upper section from 500 to 720 Ft. BGS where zonal concentrations range from 4 to 11 ug/L, but largely remain in the 3-to-4 ug/L range for most of the zonal flow; and the lower section from 720 to 989 Ft. BGS where arsenic concentrations range from 16 to 27 ug/L. This sharp boundary between the upper and lower sections is associated with a clay unit that likely stores arsenic mineralization – as well as many of the clay beds below, down to a depth of 989 Ft. BGS.

TDS is distributed relatively uniform within the screened section of Well [redacted], ranging from less than 200 to 420 mg/L. There is one interval (540 – 580 Ft. BGS) where the TDS value is calculated to be less than 10 mg/L, however this value is suspect as a result of mathematical bias in the calculation and might be the reason why arsenic is calculated to be 11 ug/L within the same interval when, in fact, it could be lower. All calculated mass balance values for TDS are below the SMCL of 500 mg/L.

Dynamic Flow Profile Graphs

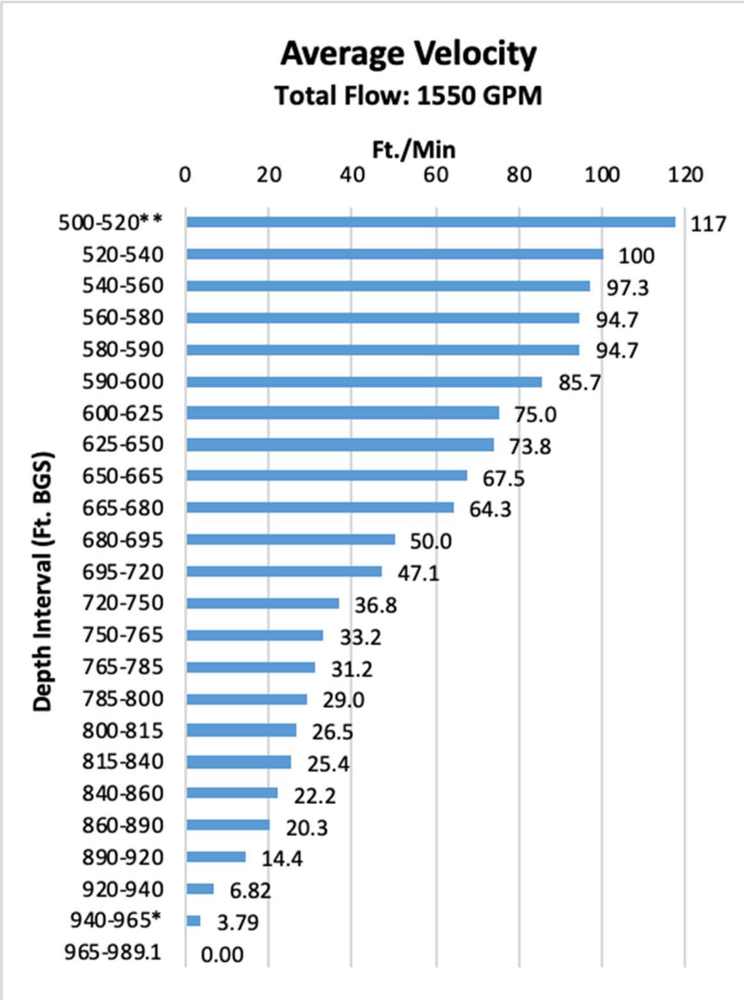

Figure 2: Well [redacted] average velocity profile.

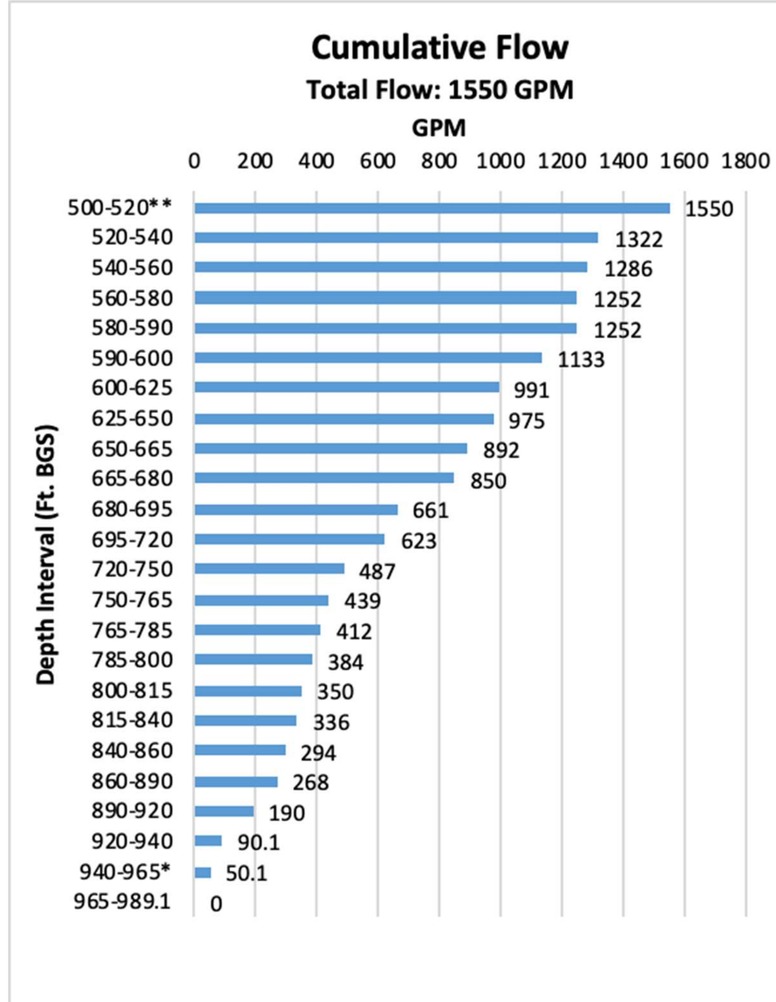

Figure 3: Well [redacted] cumulative flow profile.

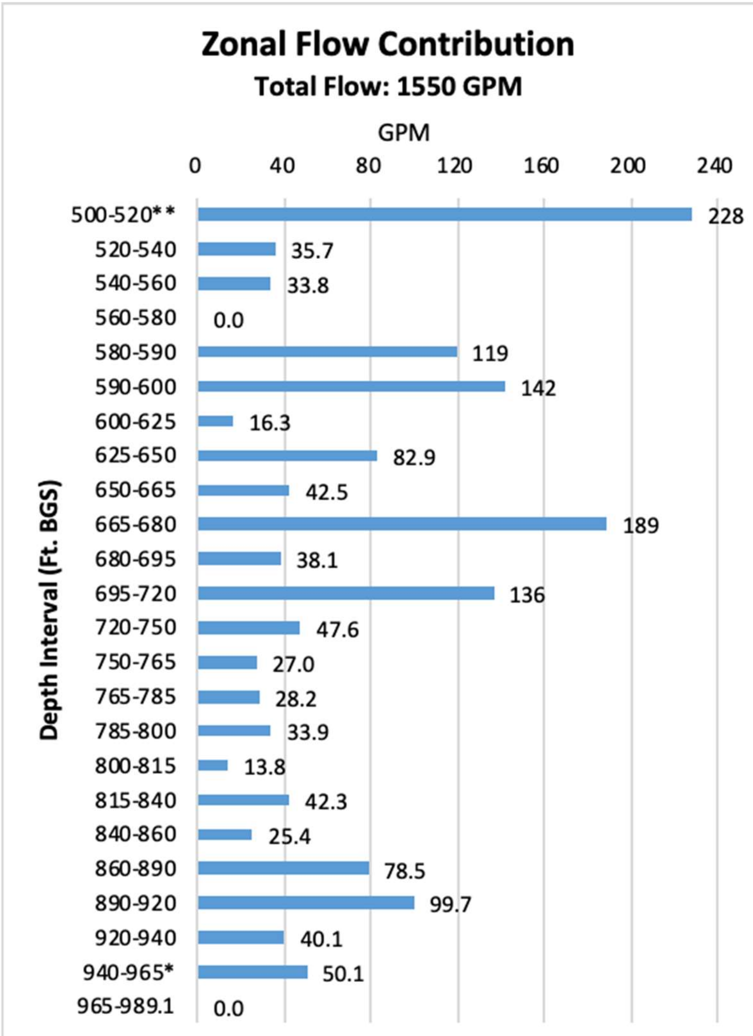

Figure 4: Well [redacted] zonal flow contribution profile.

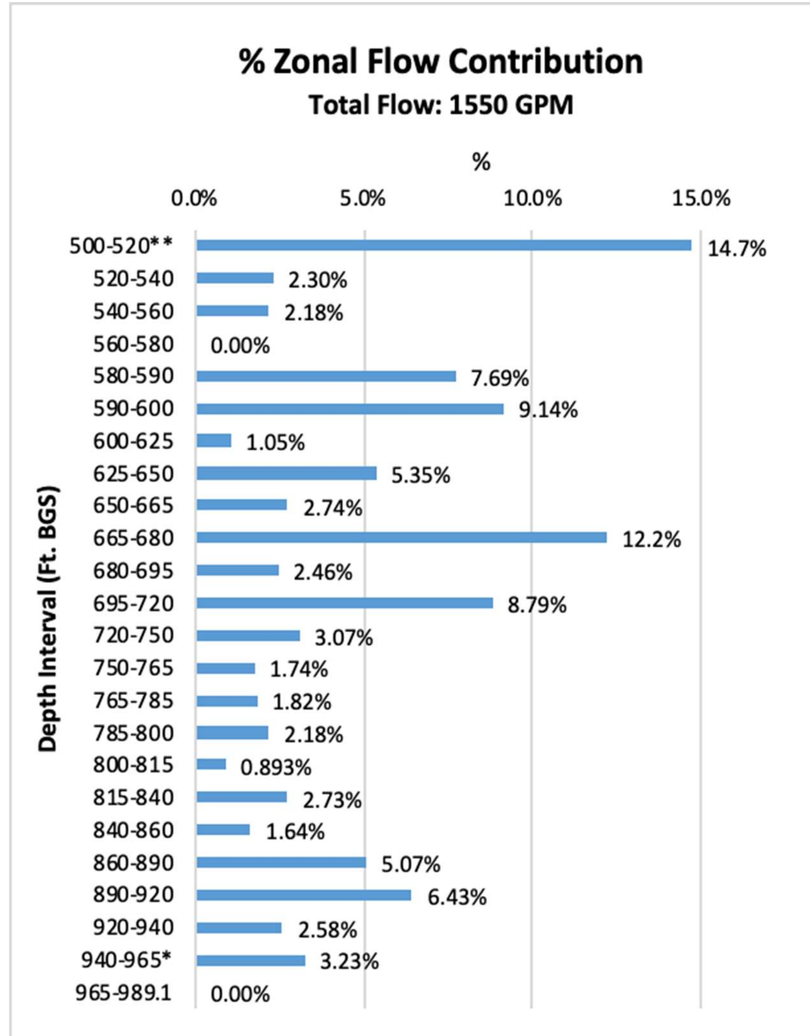

Figure 5: Well [redacted] percent zonal flow contribution profile.

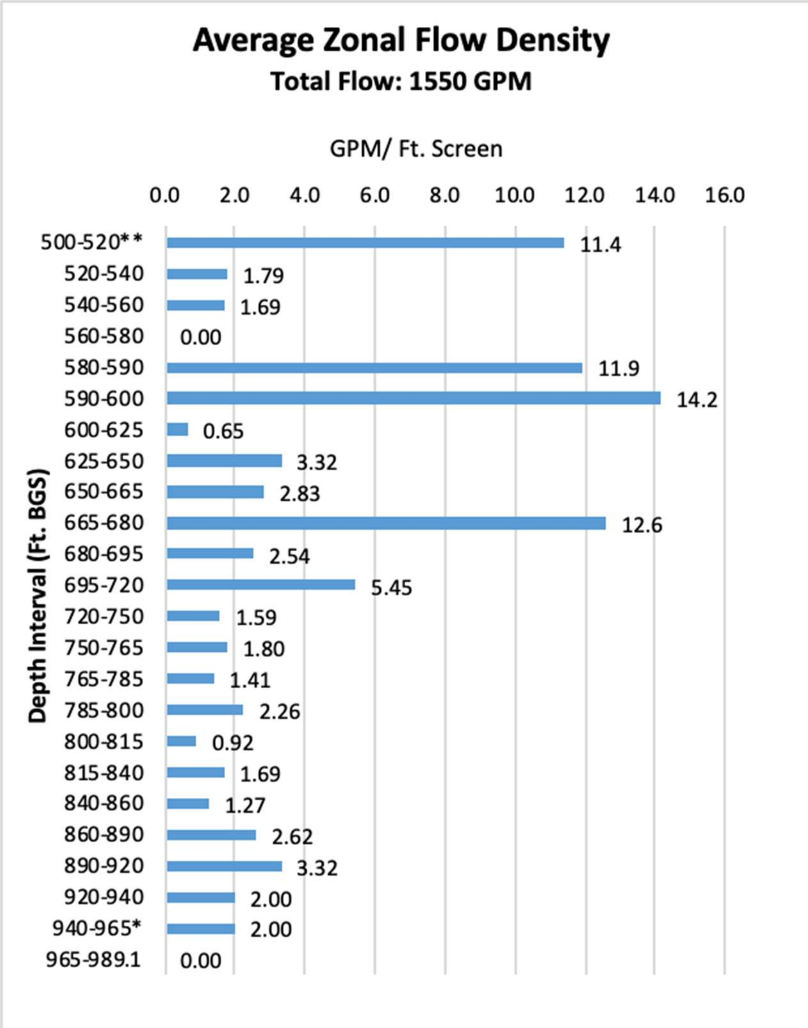

Figure 6: Well [redacted] average zonal flow density profile.

Note:

**zonal flow rate linearly interpolated from average flow density.*

***zonal flow rate inferred as the difference between pumping rate and the shallowest measured cumulative flow rate.*

Zonal Chemical Contribution Graphs

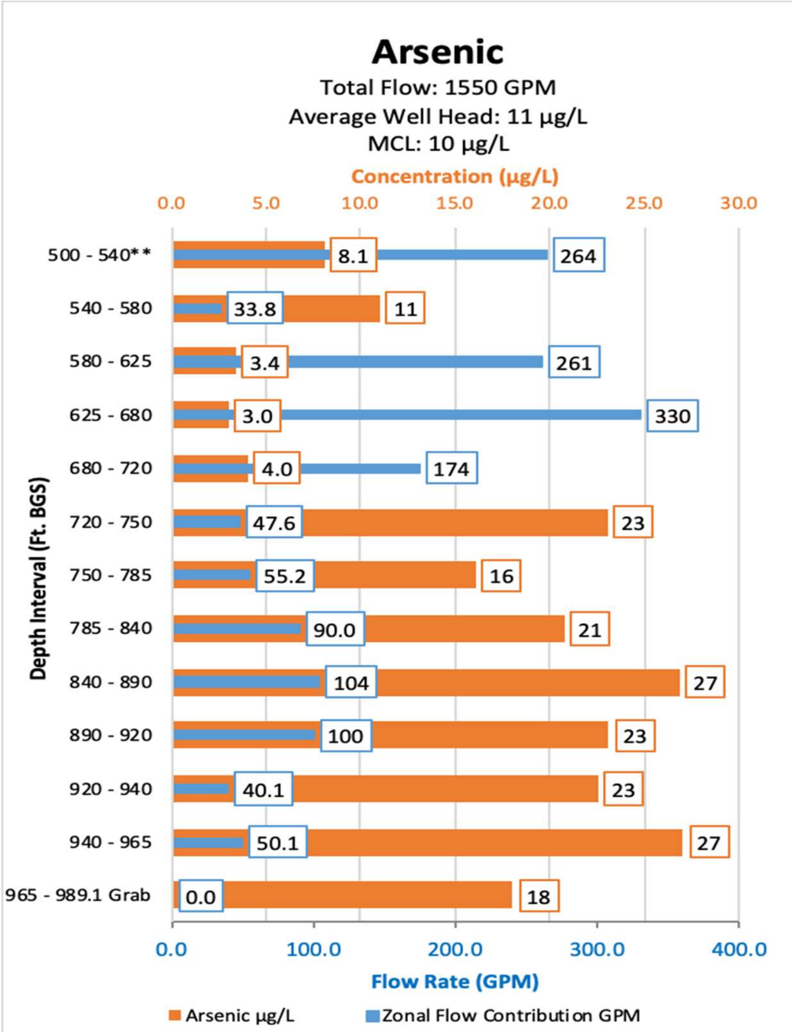

Figure 7: Well [redacted] *arsenic concentration by depth.*

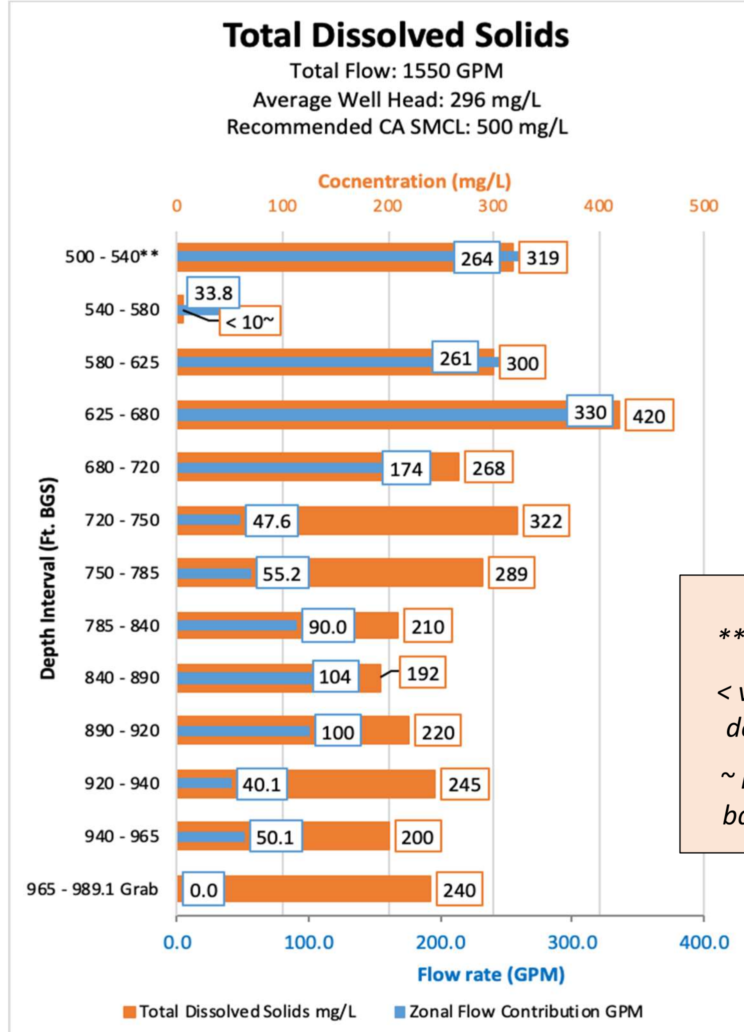

Figure 8: Well [redacted] *TDS concentration by depth.*

Note:
*** inferred data.*
< value less than detection limit.
~ negative mass balance results.

Conclusions and Recommendations

[redacted] is currently not compliant for arsenic since the wellhead concentration is slightly over the MCL of 10 ug/L: averaging 11 ug/L. Moreover, the second half of the screen section below 720 Ft. BGS distinctly shows higher flow-weighted concentrations of arsenic. The distinct boundary in arsenic concentrations at 720 Ft. BGS enables the possibility of well modification at Well [redacted].

After the vertical flow and chemistry distributions are considered in conjunction with the spinner log results and the geophysical data, two modification scenarios are provided to assess the viability of reducing the concentration at the wellhead. Table 2 below presents the blended concentration averages for arsenic and TDS for Well [redacted] under two possible scenarios.

Table 2: Possible Well Modification Scenarios for Well [redacted].

[redacted] Modification Scenarios									
SCENARIO 1 - Packer Installed around 690 Ft. BGS					**SCENARIO 2- Packer Installed around 720 Ft. BGS**				
Depth Interval	Flow contribution		Average Wellhead Conc.		Depth Interval	Flow contribution		Average Wellhead Conc.	
	%	GPM	TDS (mg/L)	As (ug/L)		%	GPM	TDS (mg/L)	As (ug/L)
500-680	57.4%	889	339.1	4.9	500-720	68.6%	1063	327.4	4.8
Inflatable Packer					**Inflatable Packer**				
680-990	42.6%	661	240	18	720-990	31.4%	487	230	23

Both scenarios will lower the wellhead arsenic concentration substantially; from 11 ug/L to 4.9 ug/L in Scenario 1, and to 4.8 ug/L in Scenario 2. The first scenario involves blocking the flow contribution below 680 Ft. BGS by placing a packer around 690 Ft. BGS. The maximum production loss in this scenario is approximately 43% (661 GPM). The second scenario places the packer at around 720 Ft. BGS, and blocks the flow production below 720 Ft. BGS. The maximum production loss for this scenario is 31% (487 GPM). Make-up production may be provided by one or both scenarios resulting from hydraulic reallocation to other intervals within the "good-water" target zone following packer installation.

The resulting wellhead arsenic concentration in both scenarios is almost the same but the difference in production loss between the two scenarios is 11%. The similarity in the results demonstrates that both scenarios will prove beneficial to lower the arsenic concentration at the wellhead. The decision as to which scenario is used is based on how much loss in production can be tolerated versus the greatest probability for achieving water quality success. If a 43% of production loss is found to be viable, we advise proceeding with Scenario 1 as it presents a more conservative approach by allowing a thicker buffer zone between the contaminated clay beds below 720 Ft. BGS and the cleaner groundwater in the shallower intervals. The inflatable packer would be installed in the clay layer at around 690 Ft. BGS and an engineered suction would extend from the pump bowls with perforations aligned with the upper sections with clean water. The bottom of the engineered suction would thread to and support the weight of the inflatable packer. Figure 10 below represents Well 240 construction diagram and lithology aligned with the geophysical logs and the flow results from the dynamic profile. The proposed packer depths are also shown.

Detailed specifications and design of the well modification and further services can be provided by BESST if requested. BESST has extensive experience in different types of well modifications and has successfully completed various well modification projects for arsenic and other constituents over the past 15 years.

This service would include a detailed Work Plan including packer selection and inflation procedures, oversight of field installation and a detailed Installation Report. References and project examples are available upon request.

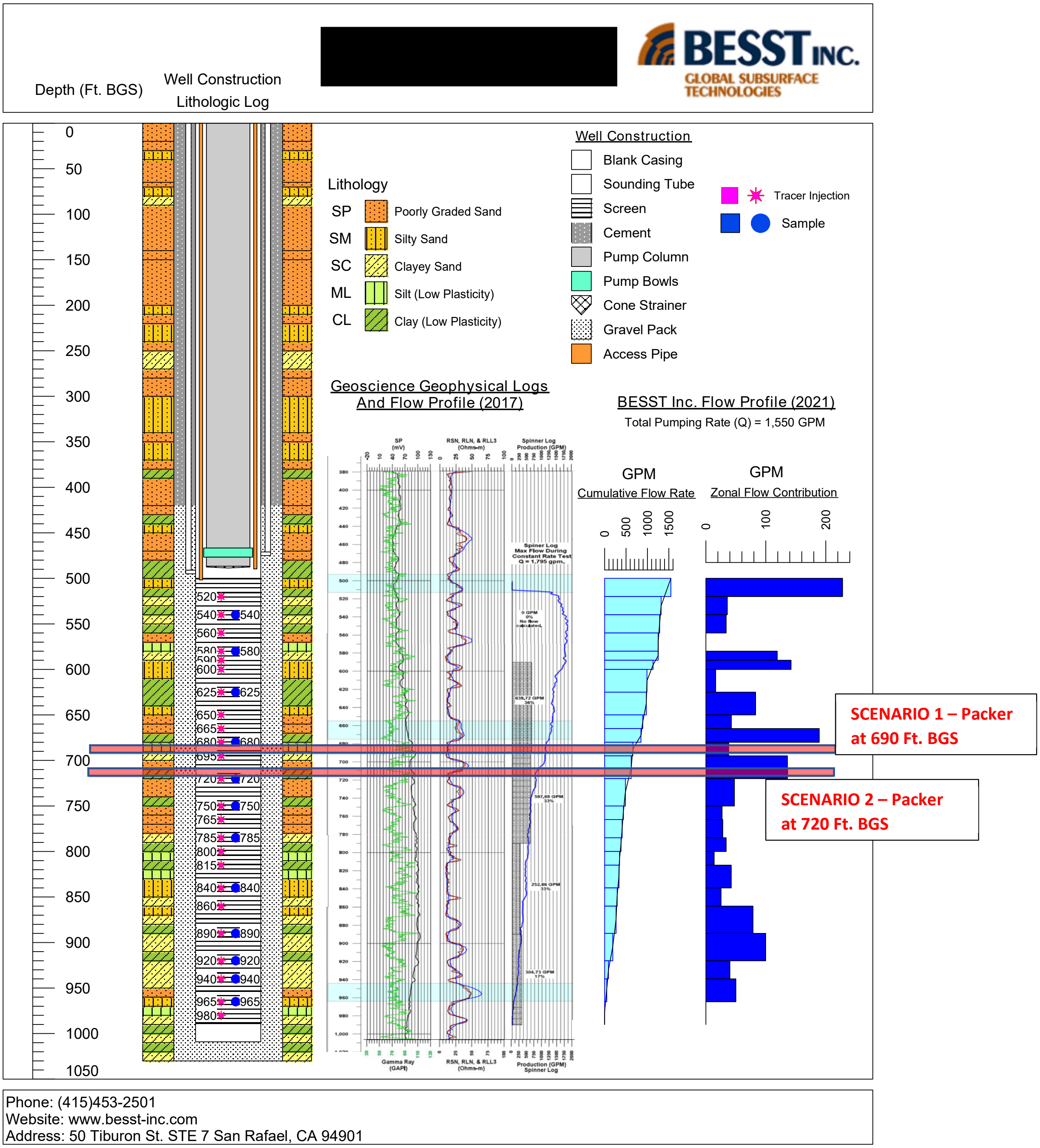

Figure 9: Proposed packer depths for Scenario 1 and Scenario 2 together with the geophysical logs and the dynamic flow profile results.

References

Maliva, *R. G., 2016. Aquifer Characterization Techniques. 617 pp. Springer Int. Publishing.*

Smolen, *James J., 1996. Cased Hole and Production Log Evaluation, pages 269-293, PenWell Publishing Company.*

Appendices

Appendix A: Dynamic Flow Profile Data

Table 3: Well [redacted] dynamic flow profile data

Depth Interval	Average Velocity	Cumulative Flow Rate	Zonal Flow Contribution		Average Zonal Flow Density
Ft. BGS	Ft./Min.	GPM	GPM	%	GPM/Ft. Screen
500-520**	100	1322	36	2.30%	1.79
520-540	97	1286	34	2.18%	1.69
560-580	95	1252	0	0.00%	0.00
580-590	95	1252	119	7.69%	11.9
590-600	86	1133	142	9.14%	14.2
600-625	75	991	16	1.05%	0.65
625-650	74	975	83	5.35%	3.32
650-665	64	850	189	12.2%	12.6
665-680	50	661	38	2.46%	2.54
680-695	47	623	136	8.79%	5.45
695-720	37	487	48	3.07%	1.59
720-750	33	439	27	1.74%	1.80
750-765	31	412	28	1.82%	1.41
765-785	29	384	34	2.18%	2.26
785-800	26	350	14	0.89%	0.92
800-815	25	336	42	2.73%	1.69
815-840	22	294	25	1.64%	1.27
840-860	20	268	79	5.07%	2.62
860-890	14	190	100	6.43%	3.32
890-920	7	90	40	2.58%	2.00
920-940	4	50	50	3.23%	2.00
940-965*	0	0	0	0.00%	0.00
965-989.1	0	0	0	0.00%	0.00
*Zonal flow rate linearly interpolated from average zonal flow density.					
**Zonal flow rate inferred as the difference between pumping rate and the shallowest measured cumulative flow rate.					

Appendix B: Laboratory Chemistry Results

Table 4: [redacted] Laboratory Results from [redacted].

Laboratory Results			
SAMPLE #	**Sample Depth**	**Total Dissolved Solids**	**Arsenic**
Unit	**Ft. BGS**	**mg/L**	**µg/L**
RL	--	10	2
MCL	--	500 mg/L [SMCL]	10.00
1	WH #1	290	10
14	WH #2	300	11
N/A	WH average	295	11
2	540	290	11
3	580	300	11
4	625	300	13
5	680	240	18
6	720	230	23
7	750	220	23
8	785	210	24
9	840	210	25
10	890	220	24
11	920	220	25
12	940	200	27
13	965	240	18

WH: Well head composite sample.
RL: Laboratory reporting limit.

Appendix C: Zonal Chemical Contribution Data

Table 5: Well [redacted] zonal chemical contribution data.

Mass Balance Results						
Sample Depth	Depth Interval	Cumulative Flow	Zonal Flow Contribution		Total Dissolved Solids	Arsenic
Ft. BGS	Ft. BGS	Ft. BGS	GPM	%	mg/L	µg/L
Reporting Limit					10.00	2.00
Well Head #1					290.0	10.0
Well Head #2					300.0	11.0
Actual Well Head Average					295.0	10.5
Theoretical Well Head Average					296.9	10.5
Percent Difference					0.6%	0.0%
WH	500 - 540**	1550	264	17.0%	319	8.1
540	540 - 580	1286	34	2.18%	<10~	11
580	580 - 625	1252	261	16.8%	300	3.4
625	625 - 680	991	330	21.3%	420	3.0
680	680 - 720	661	174	11.2%	268	4.0
720	720 - 750	487	48	3.07%	322	23
750	750 - 785	439	55	3.56%	289	16
785	785 - 840	384	90	5.81%	210	21
840	840 - 890	294	104	6.70%	192	27
890	890 - 920	190	100	6.43%	220	23
920	920 - 940	90	40	2.58%	245	23
940	940 - 965	50	50	3.23%	200	27
965	965 - 989.1	0	0	0.00%	240	18

***Zonal flow rate inferred as the difference between pumping rate and the shallowest measured cumulative flow rate.*

<~Negative mass balanced values are substituted with half the reporting limit.