COPY # 2

Sediment Trend Analysis

Sediment Trend Analysis Technical Memorandum No. 6 Revised

Agua Fria Watercourse Master Plan

FLOOD CONTROL DISTRICT of MARICOPA COUNTY

Prepared for:

Flood Control District of Maricopa County

FCD No. 99-24

KHA No. 091131004

©Kimley-Horn and Associates, Inc., August, 2001

Kimley-Horn and Associates, Inc.

Kimley-Horn
and Associates, Inc.

Suite 250
7600 North 15th Street
Phoenix, Arizona 85020

TEL 602 944 5500
FAX 602 944 7423

FLOOD CONTROL DISTRICT
RECEIVED
AUG 08 '01

CH & GM	FINANCE
PIO	LANDS
ADMIN	O & M
REG	P & PM
ENG	FILE
CONTRACTS	
ROUTING	DJD

TRANSMITTAL

Date: August 7, 2001 **Job No.:** FCD 99-24

To: David Degerness
Flood Control District of Maricopa County
2801 West Durango St
Phoenix, AZ

Re: Agua Fria River Watercourse Master Plan - Sediment Trend Analysis

We are sending you:

☐ Attached ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints/Plans ☐ Samples ☐ Specifications ☐ Change Order

☐ _____

Copies	Date	No.	Description
1	8/03/01		Sediment Trend Analysis Technical Memorandum No. 6 -Revised
			Copy No 2.

These are transmitted as checked below:

☐ For your use ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ As requested ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ For review and comment ☐ Returned for corrections ☐ Return _____ corrected prints

Remarks: DAVE: SECOND COPY PER DOUG WILLIAMS REQUEST

Copy to: file 091131004_____

Signed: Bob Eichinger_ BOB EICHINGER

Kimley-Horn
and Associates, Inc.

Suite 250
7600 N. 15th Street
Phoenix, Arizona
85020

August 7, 2001

Mr. David Degerness
Flood Control District of Maricopa County
2801 W. Durango Street
Phoenix, Arizona 85009

Re: Agua Fria River Watercourse Master Plan
Sediment Trend Analysis
FCD 99-24
KHA No.: 091131004

Dear David:

Kimley-Horn and Associates is submitting the results of our HEC-6 revised sand and gravel sediment transport model for your review and comment. The HEC-6 models have been revised per your review comments. We have enclosed the "Sediment Trend Analysis Technical Memorandum No. 6-REV" and accompanying exhibits to assist in your review. Note that we have prepared two study models. These models are summarized in the following table:

Model Name	Model Description
SGBase50.dat	Existing Conditions HEC-6 model 50% Sediment Inflow Curve on Agua Fria River 30-day 9,000-cfs flow followed by 100-year hydrograph
SGM1-50.dat	Full Sand and Gravel HEC-6 model 50% Sediment Inflow Curve on Agua Fria River 30-day 9,000-cfs flow followed by 100-year hydrograph

The base model represents the existing conditions model of the Agua Fria River submitted to you previously except that additional cross sections were added at the sand and gravel mines and the sediment inflow in the Agua Fria River is 50% of the sediment inflow provided in the existing conditions model. The second model is the full sand and gravel model with dredging templates provided for the sand and gravel mines at appropriate cross sections and with 50% sediment inflow. The sediment transport function is Yang's Streampower for sands.

The FCD comments incorporated into these revised models include checking and changing bed sediment reservoir depths at appropriate grade control structures river stations to zero depth, changing the bed sediment reservoir at the SR 74 cross section to zero depth, and preceding the 100-year hydrograph with 30-days of 9,000-cfs flow. Dredging of the sand and gravel mines to the full depths and extents occurs after the 30-day flow and prior to the 100-year hydrograph being routed through the river.

TEL 602 944 5500
FAX 602 944 7423

Kimley-Horn
and Associates, Inc.

If you have any questions please contact me at 944-5500.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Robert A. Eichinger, P.E.
Project Engineer

RAE:rae

Encl: Sediment Trend Analysis Technical Memorandum No. 6-REV
Exhibits A through H

cc: Doug Williams, A.I.C.P., FCD w/o enclosures

AGUA FRIA RIVER WATERCOURSE MASTER PLAN

SEDIMENT TREND ANALYSIS TECHNICAL MEMORANDUM NO. 6 Revised

Kimley-Horn and Associates, Inc.
KHA Project No. 091131004
August 2, 2001

Subject: Evaluation of Full Sand and Gravel Mining Operations on the Agua Fria River.

Approach: The purpose of this Memorandum No. 6 (Revised) is to document the study of full sand and gravel mining on the channel bed profile for the Agua Fria River from the confluence with the Gila River upstream to New Waddell dam. There are approximately thirty-three sand and gravel mines along and within the Agua Fria River that are either inactive, active, and/or have pending permits for operations. KHA obtained floodplain permit applications from the Flood Control District of Maricopa County for sand and gravel mines with pending permits as well mining plans for active and inactive mines. The permit applications and mining plans provide the limits of sand and gravel extraction for each mine. The extraction limits include lateral limits and depths of mining activities. These extraction limits were used to construct mining templates for the sand and gravel HEC-6 model.

KHA prepared two HEC-6 models for the purpose of this study. The first model is a base conditions model which is a revised existing conditions model of the river that KHA previously prepared and submitted to the District. The base model includes added cross sections at sand and gravel mines to better reflect the upstream and downstream limits of each sand and gravel mine at full extraction. The second HEC-6 model is the sand and gravel model. This model includes mining (dredging) templates for each cross section of each sand and gravel mine. Each sand and gravel mine has a minimum of two or three cross sections to depict the limits of the mine in the upstream and downstream directions. The HD records include the dredging template for each cross section of a sand and gravel mine. The dredging template includes the elevation of the average maximum depth of sand and gravel extraction and the horizontal station limits of extraction across each cross section. No considerations of mining setbacks are provided from existing structures and all mines were assumed to have vertical walls.

The definition of "full" sand and gravel mining, for the purposes of this study, is that all thirty-three sand and gravel mines have been mined to the ultimate extent depicted in their respective mining plans or permit applications. In other words, each mine has extracted all of the aggregate from each pit or mine to the limits according to the mining plans or permits. The sand and gravel model depicts the "full" operations conditions.

The depth of the sediment bed reservoir was increased in the sand and gravel model as appropriate for each mine as needed. This is a requirement of the HEC-6 program such that the final pit elevation cannot extend below the bottom of the model (bottom elevation of the bed sediment reservoir) at each mining cross section.

The base model and the sand and gravel models were both executed assuming 50% sediment inflow in the Agua Fria River. This condition reflects a sediment trapping capability for New Waddell Dam and "clear" water releases from the dam during a flood event. The sediment rating curve for existing and full sand and gravel model conditions is provided as follows:

LQ		5000	7000	17000	55000
LT		12913	21760	66948	293920
LF	VFS	0.02563	0.03675	0.01795	0.00716
LF	FS	0.13772	0.16853	0.132	0.10199
LF	MS	0.21035	0.2294	0.21429	0.21542
LF	CS	0.23112	0.22521	0.22541	0.25124
LF	VCS	0.36207	0.32486	0.38978	0.39271
LF	VFG	0.00367	0.00255	0.00203	0.00119
LF	FG	0.00683	0.00452	0.00379	0.00284
LF	MG	0.01083	0.00681	0.00677	0.00652
LF	CG	0.00587	0.00134	0.00686	0.01048
LF	VCG	0.00073	0	0.00108	0.01041

The sediment rating curve is given on the LQ and LT records. The flowrates (cfs) are given on the LQ record and the sediment inflow (tons/day) is given on the LT record. The LF records provide the percentage of the sediment inflow by grain size per the given discharge and sediment inflow data values.

The two models (base model and sand and gravel model) evaluated in this memorandum are based on reducing the sediment inflow on the LT record to 50% of the levels given in the above table. The models were executed using the hydrology provided in the existing condition model with 30-days of 9,000-cfs preceded the 100-year hydrograph of the Agua Fria River and assuming the sediment rating curve for New River is unchanged from the existing condition model.

The base model and the sand and gravel models were prepared and executed using the Corps of Engineers "fixed95" HEC-6 model. The results are provided in the enclosed exhibits.

Interpretation: Several tables and figures have been prepared and are included as part of this memorandum. The table and figures are presented as exhibits and are used to visually and graphically summarize the results of the sediment trend analysis evaluation of the full sand and gravel mining conditions. Exhibit A is a summary of the mining extraction limits, the moveable bed limits, and the conveyance limits for each "group" of sand and gravel mines. The extraction limits include average maximum depths of excavation and horizontal (footprint) limits of excavation. Bridge locations are noted in Exhibit A at the nearest mining limit (river station).

Exhibits B and C provide a summary table of the channel bed profiles for the base condition model and the full sand and gravel model. Exhibit B is a summary of the channel bed profile for both the base model and sand and gravel model for the peak discharge in the Agua Fria River at time step 30.37 days. Exhibit C is a summary of the channel bed profile for both the base model and sand and gravel model at time step 31.10 days (at the end of the 100-year hydrograph). Exhibit D and E illustrates the bed channel profiles in graphical form. Exhibits D and E illustrate the bed channel profile of the river during the passage of the 100-year flood for the peak and at the end of the 100-year flood. The profiles incorporated the mines which are readily apparent on the plots.

The results of the sand and gravel model indicate the potential for upstream headcutting to occur as a result of the passage of the 100-year flood through the fully developed sand and gravel mines. Exhibit C (end of 100-year hydrograph) shows the sand and gravel mine groups in shaded boxes. The cross sections not mined upstream of the sand and gravel mines indicate a general degradation of the channel invert. This is particularly evident at cross section 18.962, which indicates a channel degradation of -6.38 ft at the Bell Road bridge. Other bridge and at-grade crossings potentially exposed to channel degradation include Indian School Road bridge (cross section 8.105, -1.78 ft), Camelback Road bridge (cross section 8.992, -0.55-ft), and Northern Avenue at-grade crossing (cross section 12.42, -9.20-ft).

Exhibits B and C show several cells that are highlighted in red in the "difference" column. The red (negative) numbers are located upstream of sand and gravel mines and these numbers indicate a trend for the potential of headcutting.

Exhibits D and E show the Agua Fria River channel profiles from the impact of the passage of the 100-year flood through the river after full sand and gravel extraction. The exhibits confirm the observation of potential formation of headcuts upstream of the mines.

A review of the results for the sand and gravel model from cross sections 8.105 through 10.846 indicates minor degradation and deposition occurring in the river. This reach of the river incorporates sand and gravel mines downstream of Indian School Road to upstream to the Glendale airport area (Bethany Home Road). There are a number of mining pits that are active or have pending permits within this reach of the Agua Fria River. The maximum pit depths range from 10-ft to 80 ft. Pit depths included depths of 12, 25, and 40-ft. HEC-6 cross sections for this reach of the Agua Fria River extend

across several mining operations all of which have different mining depths. For the purposes of this study and the limitations of the HEC-6 model, an average pit depth was assumed for each mining cross section within this reach of the river. The average pit depth is not necessarily the maximum pit depth. Average pit depths were used across the cross section as the HEC-6 model is not capable of individually distinguishing separate mines across a cross section using the dredging option in HEC-6. Future sediment studies of this reach of the river should include a sensitivity analysis on maximum pit depth to evaluate the impact of the mines located in this reach of the river.

The bed channel profile in the downstream reach of the Agua Fria River, which includes the Corps of Engineers levees, appears to be relatively stable during the passage of the 100-year hydrograph. This is anticipated since this reach contains five grade control structures, has no active sand and gravel mines, and the banks of the river are stabilized with soil cement levee bank protection.

From the Gila River confluence upstream to the beginning of the Corps levees, the Agua Fria River indicates degradation (scour) during the passage of the 100-year flood flows. There is a minor (permit pending) sand and gravel mine located between river stations 1.10 to 1.25 near the west bank. The impacts of this mine at full extraction is to lower the invert of the river locally by a much as 10.3-ft during the 100-year flood.

Conclusions: The results of the full sand and gravel model of the Agua Fria River indicate the need for management of a potential erosion hazard - headcutting. The headcutting may be attributable to the extensive sand and gravel mining extraction activities incorporated into the HEC-6 model in this study. The management of potential headcuts may take the form of grade stabilization structures, set-back limits on sand and gravel mines, limitations on the depths of extraction within the floodway/floodplain, and scour countermeasures at existing and proposed river crossings. Grade control structures may be located downstream/upstream of sand and gravel mines and/or at or near bridge crossings. At-grade crossings should be reviewed for scour countermeasures. Specific local recommendations for grade control structures are beyond the level of detail undertaken as part of this study. However, general guidelines can be provided as to the locations of the grade controls as well as the anticipated toedown depth. The determination of toedown depths is not limited to the degradation depths in this study. The toedown depths include estimations of local scour and other scour components depending on proposed location of the structure. Recommended grade stabilization measures are presented in further detail in the Alternatives Report for the Agua Fria River Watercourse Master Plan as well as considerations for existing utility crossings.

Exhibit	Description
A	Mining Limits for HEC-6 Sand and Gravel Model
B	Bed Channel Invert for Peak 100-year Discharge
C	Bed Channel Invert for End of 100-year Discharge
D	Profile of Bed Channel for Peak 100-year Discharge
E	Profile of Bed Channel for End of 100-year Discharge
F	HEC-6 Existing Conditions Model Input file
G	HEC-6 Sand and Gravel Model Input file
H	Existing Bridge, Grade Control, and Utility Crossing Data

EXHIBIT A

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

Agua Fria River Watercourse Master Plan
Sediment Trend Analysis
Sand and Gravel Mining Limits

Sand and Gravel Mine	Cross Sections (HEC-6)	Mining Limits Left	Mining Limits Right	Mining Limits Elevation	Moveable Bed Limits Left	Moveable Bed Limits Right	Conveyance Limits Left	Conveyance Limits Right	Notes
Broadway	1.010	10400	10750	912	9300	10800	NA	NA	
	1.100	10050	11300	912	9200	11033	NA	NA	
	1.170	10050	10650	912	8790	11200	NA	NA	
	1.250	9920	10520	912	8400	11100	NA	NA	
Indian School	8.105	9650	10280	1000	9400	10978.6	9400	10978.6	
	8.198	9600	10500	1000	9458.7	10971	9400	11100	
	8.433	9100	10940	1000	9000	10940	9000	10597.5	
	8.768	9160	10930	1005	7000	11000	9000	11000	
	8.992	9800	11460	1005	9700	11460	9700	11460	
Camelback-Bethany	9.266	9440	15200	1014	9440	15250	9725	11700	U/S Indian School Rd Bridge
	9.435	9350	13500	1015	9548.8	11146.3	9540	11150	
	9.696	10550	15500	1018	9600	15500	9600	13500	
	9.885	10100	15050	1021	9327.8	15050	9327.8	12800	
	10.167	9660	14340	1023	9200	14340	9200	11989.1	
	10.343	8520	13750	1026	8520	13750	9750	11416	
	10.538	7870	13320	1030	7870	13320	8600	10478.1	
	10.752	10550	12660	1025	9200	12690	9200	10700	
	10.846	10680	12300	1025	7572	12370	8200	11000	
Glendale	11.557	6100	10000	1022	8000	10100.9	9000	10100.9	U/S Glendale Rd Bridge
	11.847	6000	10000	1022	6000	10113.4	9914.3	10113.4	
	12.042	7200	10000	1025	7200	10165	5900	10165	
	12.359	7200	10000	1030	6700	10200	7200	10200	
Grand and Greeway	16.612	10090	10700	1090	10090	10800	9808.2	10300	U/S Grand Ave/Santa Fe Bridge
	16.990	10100	12650	1090	9800	12650	9800	12400	
	17.458	8740	12500	1090	8740	12500	9000	11800	
	17.638	8800	12580	1105	8800	12580	9000	11100	
	17.821	8170	11800	1107	8170	11800	8600	10800	
	18.275	8010	12900	1120	8010	12900	8800	10650	
	18.839	8150	10250	1120	8150	10350	9300	10350	D/S Bell Road Bridge
Beardsley and Rose	20.958	8600	9150	1145	8600	10750	9250	10750	
Garden Lane	21.061	8800	10100	1150	8800	10100	9200	11000	
	21.157	9050	10500	1149	9377.3	10398	9300	10800	
	21.431	7600	10570	1150	9190.7	10769.5	9100	11200	
	21.893	9547	10700	1160	9558.8	10758.1	9604	12000	U/S Rose Garden Lane crossing
Deer Valley	22.177	9800	11500	1190	8850	11500	8850	11100	
	22.462	10800	12200	1170	9050.4	12200	9050	10800	
	22.745	11050	12200	1195	8910	12200	8910	11000	
Pinnacle Mines	22.935	10920	12000	1208	8492.7	12000	8400	10750	
	23.409	11160	12200	1210	8173.3	12200	8700	11160	
	23.692	7000	9700	1190	7000	11450	9670	11450	
	23.974	7400	10280	1190	7400	10388.9	9716	11200	
Pinnalce Vista -1	25.940	9950	11970	1245	8000	11970	8000	10000	
	26.290	10890	13250	1255	8200	13250	8200	10890	
	26.630	11850	14370	1260	9200	14370	9200	11850	
Dixileta-1	27.480	7030	7710	1260	7030	10080	7710	10080	
	27.680	7270	7850	1265	7270	10800	7850	10200	
	27.940	8020	8380	1265	7850	10200	8380	10300	

EXHIBIT B

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
33.820	1386.96	1386.96	0.00	
33.410	1387.06	1387.06	0.00	
32.998	1378.98	1378.98	0.00	Morgan City Wash
32.984	1378.40	1378.41	0.01	State Rte 74
32.920	1377.03	1377.11	0.08	
32.860	1372.79	1372.68	-0.11	
32.720	1365.17	1365.17	0.00	
32.430	1363.81	1363.79	-0.02	
31.860	1361.09	1361.15	0.06	
31.390	1350.41	1350.21	-0.20	
30.820	1339.12	1338.82	-0.30	
30.730	1340.47	1340.37	-0.10	
30.260	1339.35	1339.37	0.02	
30.070	1329.77	1329.81	0.04	
29.800	1330.75	1330.68	-0.07	
29.611	1325.86	1325.82	-0.04	
29.540	1325.61	1325.60	-0.01	
29.040	1316.60	1316.58	-0.02	
28.950	1311.59	1311.54	-0.05	
28.670	1310.41	1310.61	0.20	
28.120	1303.86	1303.31	-0.55	
27.940	1298.75	1265.15	-33.60	
27.680	1289.87	1287.30	-2.57	
27.480	1287.93	1287.89	-0.04	
27.030	1281.89	1282.03	0.14	
26.730	1279.95	1279.03	-0.92	
26.630	1279.06	1260.32	-18.74	
26.290	1268.65	1268.50	-0.15	
25.940	1261.34	1245.19	-16.15	
25.860	1260.78	1261.25	0.47	
25.666	1256.18	1256.11	-0.07	
25.478	1252.96	1253.20	0.24	Jomax Road
24.996	1247.51	1248.01	0.50	
24.543	1235.78	1235.49	-0.29	
24.449	1235.56	1233.91	-1.65	Happy Valley Road
23.974	1228.14	1190.73	-37.41	
23.692	1222.96	1189.98	-32.98	
23.409	1215.74	1209.64	-6.10	Pinnacle Peak Road
22.935	1211.36	1211.29	-0.07	
22.745	1203.91	1203.13	-0.78	
22.462	1198.62	1198.13	-0.49	
22.177	1194.84	1188.91	-5.93	
21.893	1186.52	1161.57	-24.95	
21.431	1182.78	1150.20	-32.58	
21.157	1177.07	1149.00	-28.07	

Channel Bed Thalweg at
End of 100-year hydrograph
(Existing vs Sand and Gravel)

Shading Indicates locations
of Sand and Gravel Mines

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
21.061	1176.55	1150.00	-26.55	Beardsley Road
20.958	1176.58	1176.32	-0.26	
20.579	1171.81	1171.70	-0.11	
19.920	1164.07	1164.12	0.05	Union Hills Road
19.446	1155.16	1155.23	0.07	
19.066	1148.61	1147.79	-0.82	
18.962	1146.90	1140.52	-6.38	Bell Road
18.839	1144.11	1120.37	-23.74	
18.275	1130.44	1119.72	-10.72	
17.821	1129.04	1107.50	-21.54	
17.638	1127.08	1105.02	-22.06	
17.458	1118.22	1090.00	-28.22	
16.990	1111.21	1090.00	-21.21	
16.612	1105.71	1089.98	-15.73	
16.506	1105.07	1104.83	-0.24	Grand Avenue
16.482	1104.96	1105.23	0.27	
16.099	1100.82	1100.80	-0.02	
15.719	1093.78	1093.74	-0.04	Cactus Road - El Mirage Landfill
15.374	1092.33	1092.31	-0.02	
15.094	1089.99	1090.00	0.01	
15.000	1087.42	1087.53	0.11	
14.430	1079.80	1080.00	0.20	
13.952	1071.02	1070.61	-0.41	
13.467	1065.02	1064.86	-0.16	Olive Ave
13.007	1062.01	1061.87	-0.14	
12.816	1058.64	1057.89	-0.75	
12.470	1055.59	1052.38	-3.21	
12.420	1055.68	1046.48	-9.20	
12.359	1052.54	1032.14	-20.40	
12.042	1046.08	1025.38	-20.70	
11.847	1043.74	1021.91	-21.83	
11.557	1041.73	1022.02	-19.71	
11.428	1042.67	1041.74	-0.93	Glendale Ave
11.029	1036.66	1035.80	-0.86	
10.846	1032.28	1031.31	-0.97	
10.752	1032.10	1023.30	-8.80	
10.538	1031.42	1030.22	-1.20	
10.343	1025.90	1025.84	-0.06	
10.167	1023.87	1023.22	-0.65	
9.885	1020.78	1020.90	0.12	
9.696	1018.74	1017.72	-1.02	D/S Glendale Airport
9.435	1015.28	1014.63	-0.65	U/S Camelback Road
9.266	1013.68	1012.11	-1.57	
8.992	1006.83	1006.28	-0.55	
8.768	1006.36	1004.99	-1.37	

Channel Bed Thalweg at
End of 100-year hydrograph
(Existing vs Sand and Gravel)

Shading Indicates locations
of Sand and Gravel Mines

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
8.433	1004.68	1000.59	-4.09	
8.198	1002.10	999.89	-2.21	
8.105	1001.30	999.52	-1.78	
8.000	1001.24	1000.16	-1.08	
7.990	1000.99	999.79	-1.20	Indian School Road
7.988	1000.93	1000.06	-0.87	Grade control structure
7.490	994.79	994.86	0.07	
6.990	989.33	989.37	0.04	
6.930	989.73	989.74	0.01	
6.910	988.82	988.78	-0.04	
6.890	989.44	989.44	0.00	Grade control structure
6.888	989.41	989.40	-0.01	
6.820	984.13	984.13	0.00	
6.430	981.10	981.01	-0.09	
6.070	977.69	977.60	-0.09	Grade control structure
6.068	977.69	977.60	-0.09	
5.900	975.96	975.90	-0.06	
5.750	974.30	974.25	-0.05	
5.689	975.02	974.98	-0.04	McDowell Road
5.380	970.80	970.79	-0.01	
5.290	971.14	971.14	0.00	
5.203	970.01	970.01	0.00	Grade control structure
5.201	969.10	969.11	0.01	
5.150	963.79	963.85	0.06	
4.790	963.75	963.69	-0.06	
4.754	964.27	964.22	-0.05	
4.700	962.60	962.55	-0.05	
4.300	959.41	959.38	-0.03	
4.094	958.51	958.51	0.00	Grade control structure
4.092	955.20	955.20	0.00	
3.767	951.75	951.75	0.00	
3.757	951.56	951.56	0.00	
3.734	951.40	951.40	0.00	
3.729	951.52	951.53	0.01	
3.430	946.60	946.60	0.00	
3.370	945.07	945.07	0.00	
3.270	945.66	945.66	0.00	
2.800	941.61	941.60	-0.01	
2.600	938.14	938.11	-0.03	
2.020	931.35	931.37	0.02	
1.710	927.90	927.81	-0.09	
1.330	921.94	919.32	-2.62	
1.250	922.71	914.43	-8.28	
1.170	921.49	917.62	-3.87	
1.100	919.14	914.14	-5.00	

Channel Bed Thalweg at
End of 100-year hydrograph
(Existing vs Sand and Gravel)

Shading Indicates locations
of Sand and Gravel Mines

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
1.010	919.21	911.70	-7.51	
0.730	915.90	915.44	-0.46	
0.630	914.30	914.00	-0.30	
0.440	912.45	912.17	-0.28	
0.160	908.63	908.68	0.05	Gila River confluence

Channel Bed Thalweg at
End of 100-year hydrograph
(Existing vs Sand and Gravel)

Shading Indicates locations
of Sand and Gravel Mines

EXHIBIT C

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
33.820	1386.96	1386.96	0.00	
33.410	1387.03	1387.03	0.00	
32.998	1378.96	1378.96	0.00	Morgan City Wash
32.984	1378.42	1378.42	0.00	State Rte 74
32.920	1377.14	1377.22	0.08	
32.860	1372.80	1372.74	-0.06	
32.720	1365.12	1365.11	-0.01	
32.430	1363.83	1363.81	-0.02	
31.860	1358.46	1358.42	-0.04	
31.390	1350.51	1350.33	-0.18	
30.820	1339.05	1338.72	-0.33	
30.730	1340.63	1340.30	-0.33	
30.260	1339.52	1339.55	0.03	
30.070	1329.67	1329.76	0.09	
29.800	1330.77	1330.73	-0.04	
29.611	1326.07	1325.99	-0.08	
29.540	1325.67	1325.71	0.04	
29.040	1316.68	1316.64	-0.04	
28.950	1311.57	1311.56	-0.01	
28.670	1310.41	1310.55	0.14	
28.120	1303.84	1303.58	-0.26	
27.940	1298.80	1265.32	-33.48	
27.680	1289.88	1288.05	-1.83	
27.480	1287.85	1260.15	-27.70	
27.030	1281.88	1281.85	-0.03	
26.730	1279.91	1279.17	-0.74	
26.630	1279.15	1260.29	-18.86	
26.290	1268.66	1268.67	0.01	
25.940	1261.37	1244.99	-16.38	
25.860	1260.75	1260.73	-0.02	
25.666	1256.21	1256.17	-0.04	
25.478	1252.91	1253.21	0.30	Jomax Road
24.996	1247.67	1248.41	0.74	
24.543	1235.93	1235.83	-0.10	
24.449	1235.54	1235.04	-0.50	Happy Valley Road
23.974	1228.11	1190.26	-37.85	
23.692	1222.99	1189.98	-33.01	
23.409	1215.74	1209.82	-5.92	Pinnacle Peak Road
22.935	1211.35	1211.33	-0.02	
22.745	1203.95	1203.19	-0.76	
22.462	1198.64	1198.50	-0.14	
22.177	1194.76	1189.68	-5.08	
21.893	1186.61	1160.56	-26.05	
21.431	1182.70	1150.09	-32.61	
21.157	1177.08	1149.00	-28.08	

Channel Bed Thalweg at
Peak of 100-year Hydrograph
(Existing vs Sand and Gravel)

Shading indicates locations
of Sand and Gravel Mines

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
21.061	1176.48	1150.00	-26.48	Beardsley Road
20.958	1176.59	1176.42	-0.17	
20.579	1171.79	1171.72	-0.07	
19.920	1162.91	1162.92	0.01	Union Hills Road
19.446	1155.09	1155.26	0.17	
19.066	1148.53	1148.03	-0.50	
18.962	1146.77	1142.28	-4.49	Bell Road
18.839	1144.20	1120.22	-23.98	
18.275	1130.43	1119.90	-10.53	
17.821	1128.96	1107.24	-21.72	
17.638	1127.08	1105.01	-22.07	
17.458	1118.26	1090.00	-28.26	
16.990	1111.09	1090.00	-21.09	
16.612	1105.53	1089.99	-15.54	
16.506	1105.01	1104.89	-0.12	Grand Avenue
16.482	1104.95	1105.24	0.29	
16.099	1100.90	1100.80	-0.10	
15.719	1093.83	1093.75	-0.08	Cactus Road - El Mirage Landfill
15.374	1092.26	1092.32	0.06	
15.094	1089.99	1089.99	0.00	
15.000	1087.44	1087.53	0.09	
14.430	1079.84	1080.25	0.41	
13.952	1071.40	1071.22	-0.18	
13.467	1064.98	1064.73	-0.25	Olive Ave
13.007	1061.91	1061.85	-0.06	
12.816	1058.70	1058.14	-0.56	
12.470	1055.72	1053.09	-2.63	
12.420	1056.49	1048.71	-7.78	
12.359	1052.35	1031.50	-20.85	
12.042	1045.73	1025.19	-20.54	
11.847	1043.83	1021.95	-21.88	
11.557	1041.22	1022.01	-19.21	
11.428	1042.75	1042.11	-0.64	Glendale Ave
11.029	1036.75	1036.36	-0.39	
10.846	1032.12	1031.62	-0.50	
10.752	1032.07	1024.04	-8.03	
10.538	1031.53	1030.15	-1.38	
10.343	1025.80	1025.91	0.11	
10.167	1023.84	1023.11	-0.73	
9.885	1020.82	1020.87	0.05	
9.696	1018.79	1017.88	-0.91	D/S Glendale Airport
9.435	1015.29	1014.71	-0.58	U/S Camelback Road
9.266	1013.76	1012.95	-0.81	
8.992	1006.91	1005.67	-1.24	
8.768	1006.27	1005.08	-1.19	

Channel Bed Thalweg at
Peak of 100-year Hydrograph
(Existing vs Sand and Gravel)

Shading indicates locations
of Sand and Gravel Mines

River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
8.433	1004.93	1000.24	-4.69	
8.198	1001.97	999.96	-2.01	
8.105	1001.38	999.80	-1.58	
8.000	1001.42	1000.43	-0.99	
7.990	1000.85	999.49	-1.36	Indian School Road
7.988	1000.92	1000.45	-0.47	Grade control structure
7.490	994.81	994.89	0.08	
6.990	989.36	989.36	0.00	
6.930	989.95	989.91	-0.04	
6.910	988.40	988.59	0.19	
6.890	989.40	989.40	0.00	Grade control structure
6.888	990.24	990.24	0.00	
6.820	984.13	984.13	0.00	
6.430	981.03	981.03	0.00	
6.070	977.71	977.70	-0.01	Grade control structure
6.068	977.73	977.73	0.00	
5.900	976.00	976.00	0.00	
5.750	974.31	974.30	-0.01	
5.689	975.08	975.07	-0.01	McDowell Road
5.380	970.81	970.81	0.00	
5.290	971.12	971.17	0.05	
5.203	970.32	970.31	-0.01	Grade control structure
5.201	969.10	969.10	0.00	
5.150	963.81	963.85	0.04	
4.790	963.71	963.68	-0.03	
4.754	964.06	964.03	-0.03	
4.700	962.46	962.43	-0.03	
4.300	959.38	959.37	-0.01	
4.094	958.74	958.73	-0.01	Grade control structure
4.092	955.20	955.20	0.00	
3.767	951.66	951.68	0.02	
3.757	951.45	951.47	0.02	
3.734	951.74	951.78	0.04	
3.729	951.46	951.48	0.02	
3.430	946.34	946.34	0.00	
3.370	944.98	944.98	0.00	
3.270	945.68	945.67	-0.01	
2.800	941.60	941.60	0.00	
2.600	938.23	938.21	-0.02	
2.020	931.31	931.34	0.03	
1.710	927.92	927.92	0.00	
1.330	922.01	920.35	-1.66	
1.250	922.50	912.19	-10.31	
1.170	921.66	916.04	-5.62	
1.100	919.43	912.87	-6.56	

Channel Bed Thalweg at
Peak of 100-year Hydrograph
(Existing vs Sand and Gravel)

Shading indicates locations
of Sand and Gravel Mines

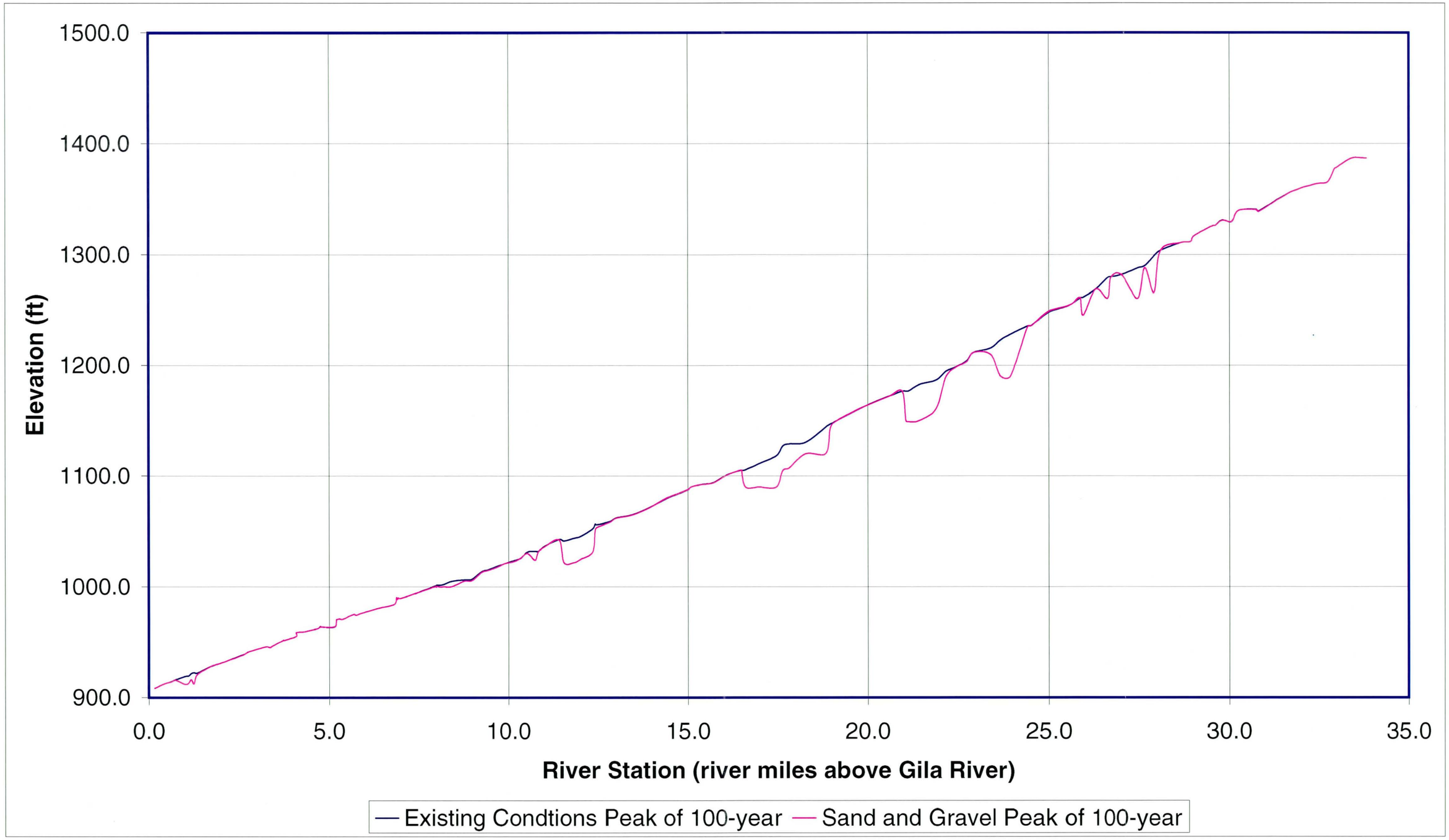
River Station	Existing Model THALWEG (ft)	Sand and Gravel Model THALWEG (ft)	Difference (ft)	Comments
1.010	919.15	911.89	-7.26	
0.730	915.91	915.72	-0.19	
0.630	914.31	914.17	-0.14	
0.440	912.49	912.39	-0.10	
0.160	908.30	908.26	-0.04	Gila River confluence

Channel Bed Thalweg at
Peak of 100-year Hydrograph
(Existing vs Sand and Gravel)

Shading indicates locations
of Sand and Gravel Mines

EXHIBIT D

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

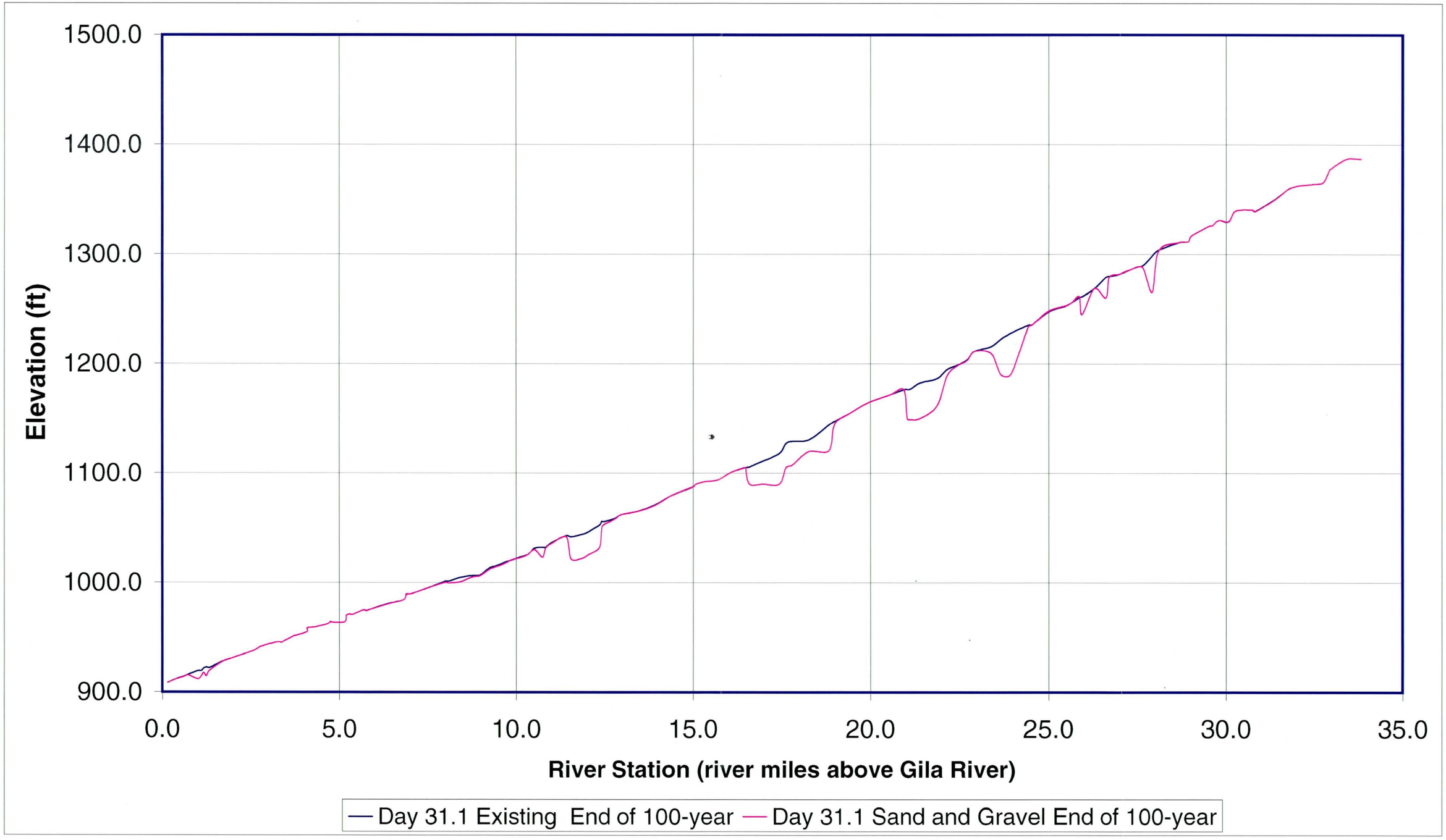


Channel Bed Thalweg Profiles
Peak of 100-year hydrograph

8/7/01

EXHIBIT E

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004



Channel Bed Thalweg Profiles
End of 100-year hydrograph

8/7/01

EXHIBIT F

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

```
T1      KIMLEY-HORN AND ASSOCIATES, INC. (KHA PROJECT NO. 091131004) EICHINGER
T2      AGUA FRIA RIVER, GILA RIVER TO NEW WADDELL DAM SEDIMENT TREND ANALYSIS
T       100-YEAR EVENT SAND AND GRAVEL MODEL - SGBase50.dat JULY 25 2001
     ***********************************************************************
     SAND AND GRAVEL BASE MODEL WITHOUT DREDGING TEMPLATES
     ADDED CROSS SECTIONS AT SEVERAL SAND AND GRAVEL MINE LOCATIONS
     THIS SGBase50.dat MODEL IS BASED ON ECAFREV.DAT WHICH IS THE EXISTING CONDITIONS
     MODEL OF THE AGUA FRIA RIVER
    ************************************************************************
          EC - EXISTING CONDITIONS
          AF - AGUA FRIA
          Rev - Revised from April 25, 2001 model titled EC100AF.DAT
       ***UPDATE***(1) CHANGE BED VOLUME RESERVOIR AT STATE ROUTE 74 X-SECTION 32.984
       TO 0 FT; (2) CHANGE MOVEABLE BED LEFT LIMIT FOR X-SECTION 24.542 TO STA. 9000.
    ************************************************************************
       50% SEDIMENT INFLOW FOR AGUA FRIA RIVER
    ************************************************************************
NC 0.045   0.064   0.035      .1      .3
X1  0.16      52    9720   10184       0       0       0
X3    10
GR 924.4  4925.0   924.2  5199.0   921.8  5600.0   919.5  5760.0   919.4  5959.0
GR 920.9  6245.0   920.8  6516.0   919.3  6554.0   919.8  6850.0   919.6  7271.0
GR 920.5  7535.0   919.6  8000.0   917.6  8136.0   917.4  8339.0   912.3  8356.0
GR 917.2  8376.0   916.4  8991.0   916.0  9030.0   914.0  9212.0   911.6  9231.0
GR 913.2  9494.0   911.2  9620.0   911.8  9720.0   910.7 10000.0   909.7 10120.0
GR 909.6  10136.   913.7 10167.0   913.7 10184.0   913.7 10213.0   913.7 10477.0
GR 917.1  10590.   916.6 10873.0   910.5 10909.0   910.5 11042.0   915.2 11068.0
GR 912.1  11265.   911.5 11500.0   911.5 11516.0   908.3 11664.0   910.4 11830.0
GR 916.1  11911.   914.1 12098.0   914.9 12628.0   922.1 12652.0   922.7 12725.0
GR 916.5  12758.   916.8 13671.0   916.2 14363.0   917.2 14971.0   917.8 15391.0
GR 913.5  15403.   920.3 15459.0
HD  0.16      10    8200   12250
NC 0.045    0.10   0.035
X1  0.44    44.0    9798   10420    1510    1465    1485
X3    10
GR 927.5  3107.0   925.0  4575.0   922.8  5984.0   921.8  6974.0   920.3  7816.0
GR 923.1  7847.0   923.3  7915.0   919.1  7942.0   919.1  7995.0   923.7  8029.0
GP 919.5  8152.0   918.5  8300.0   916.2  8640.0   915.1  8999.0   916.8  9023.0
(    6.7  9710.0   916.7  9798.0   913.9  9815.0   913.5  9842.0   912.8 10000.0
(   -7.6 10016.0   916.8 10120.0   916.2 10201.0   917.0 10263.0   917.7 10313.0
GR 917.7 10385.0   917.7 10420.0   917.7 10455.0   917.8 11076.0   920.3 11103.0
GR 916.9 11133.0   916.4 11365.0   919.1 11391.0   918.7 12229.0   918.8 12650.0
GR 920.6 12691.0   919.8 12785.0   919.6 13644.0   920.2 14200.0   920.4 14355.0
GR 921.0   16110   921.8   16630   922.9   17240   924.0   17640
HD  0.44      10    8100   12750
NC 0.048   0.074   0.035
X1  0.63    36.0    9888   10209    1055     985    1010
X3                          6600     925   16200     925
GR 927.8  3220.0   928.7  4462.0   927.0  5328.0   924.8  6127.0   923.4  6520.0
GR 925.1  6530.0   925.1  6553.0   917.7  6571.0   926.5  6600.0   923.7  6645.0
GR 923.1  7426.0   922.5  8068.0   921.2  8670.0   921.1  8772.0   917.5  8831.0
GR 920.1  9149.0   920.4  9522.0   919.9  9740.0   919.6  9888.0   915.7  9908.0
GR 916.1 10000.0   916.0 10095.0   929.0 10209.0   917.1 10273.0   916.6 10424.0
GR 919.7 10448.0   920.7 10644.0   926.6 10667.0   919.1 10704.0   921.3 11646.0
GR 921.5 12511.0   921.7 13595.0   921.7 14582.0   923.3   15500   923.8   15950
GR 925.0   16200
HD  0.63      10    8270   12400
NC 0.050   0.066   0.035
X1  0.73    39.0    9917   10162     510     490     500
X3    10
GR 926.5  3285.0   926.3  3986.0   925.6  4737.0   925.2  5415.0   925.6  5760.0
GR 925.6  5797.0   925.7  5889.0   925.7  5945.0   924.5  6306.0   924.5  7206.0
GR 924.3  8340.0   921.6  8530.0   921.3  8800.0   921.1  8982.0   919.1  8999.0
GR 918.6  9126.0   921.0  9195.0   920.8  9760.0   920.0  9917.0   917.8  9927.0
GR 917.9 10000.0   916.9 10087.0   919.0 10100.0   919.3 10162.0   919.2 10205.0
GR 917.0 10479.0   919.8 10521.0   918.9 10591.0   919.2 10655.0   919.2 10697.0
GR 919.2 10771.0   922.2 10794.0   921.6 11725.0   922.6 11783.0   924.5 12394.0
GR 924.5 13563.0   924.0   14000   924.3   15050   926.0   15560
HD  0.73      10    8200   12400
      ******************************************************
      ************BEGIN BROADWAY 1W AND 1E********************
NC 0.045    0.07   0.035
X1  1.01    35.0    9682   10471    1380    1375    1375
X^    10
     8.9  4205.0   928.5  5661.0   929.2  6721.0   928.4  7602.0   928.7  8490.0
(   28.7  8566.0   928.2  8695.0   928.3  8740.0   928.5  9048.0   928.6  9151.0
GR 928.8  9185.0   922.0  9235.0   921.8  9300.0   921.4  9400.0   924.5  9437.0
GR 924.9  9682.0   921.5 10000.0   921.2 10380.0   921.2 10405.0   924.0 10471.0
GR 924.0  10505.   924.0 10677.0   924.0 10694.0   924.0 10715.0   922.9 10733.0
GR 923.6  10830.   929.5 10849.0   924.2 10867.0   925.3 11259.0   930.4 11284.0
GR 930.4  11298.   924.4 11319.0   924.6 12194.0   929.7   13800   932.0   14000
HD  1.01      10    9300   10800              912   10400   10750
NC 0.045   0.077   0.035
X1  1.10    37.0    9719   10678     500     470     490
```

```
X3     10
GR 929.3  6000.0   930.4  6858.0   929.4  7741.0   929.3  8585.0   929.3  8600.0
   929.6  8801.0   928.2  9000.0   931.4  9071.0   919.5  9267.0   920.8  9325.0
    23.6  9368.0   924.3  9660.0   923.6  9700.0   923.2  9719.0   922.5 10000.0
GR 923.1 10141.0   923.0 10171.0   923.0 10387.0   923.0 10419.0   923.0 10556.0
GR 923.0 10595.0   925.5 10678.0   925.5 10729.0   924.0 10913.0   924.0 10941.0
GR 924.0 10966.0   924.7 11005.0   927.9 11017.0   927.9 11033.0   924.6 11128.0
GR 929.4 11150.0   925.5 11188.0   925.5 11400.0   925.6 11660.0   926.3 12105.0
GR 928.0   13150   930.3   13600
HD  1.10      10    9200   11033             912   10050   11300
NC 0.045   0.069   0.035
X1  1.17    25.0    9917   10654     560     490     540
X3     10
GR 932.2  6215.0   929.9  7229.0   929.9  7805.0   929.7  8500.0   929.7  8639.0
GR 926.5  8784.0   927.1  9032.0   928.5  9439.0   926.8  9778.0   927.2  9917.0
GR 923.7  9929.0   923.6  9940.0   924.3 10000.0   923.6 10113.0   924.3 10142.0
GR 924.3 10608.0   926.6 10620.0   926.6 10654.0   924.0 10704.0   927.0 11220.0
GR 927.3 11266.0   926.6 11765.0   926.8 12280.0   930.3   13060   934.0   13150
HD  1.17      10    8790   11200
NC 0.045   0.069   0.035
X1  1.25    24.0    9974   10742     480     490     485
X3     10
GR 933.2  6235.0   931.2  6887.0   932.2  8114.0   932.2  8340.0   932.2  8429.0
GR 927.9  8531.0   930.3  8831.0   927.5  9204.0   930.3  9306.0   929.1  9974.0
GR 926.2  9990.0   924.4 10000.0   924.4 10533.0   924.4 10571.0   924.4 10594.0
GR 924.4 10702.0   929.8 10742.0   930.1 11083.0   929.4 11240.0   928.7 11410.0
GR 928.5 12013.0   930.4 12109.0   936.0   12500   940.0   13000
HD  1.25      10    8400   11100
  ************END BROADWAY 1W AND 1E*******************
  ****************************************************
NC 0.045   0.050   0.035
X1  1.33    32.0    9911   10456     485     500     495
X3     10
GR 934.6  6000.0   933.3  6025.0   932.9  6490.0   931.0  6748.0   931.3  7154.0
GR 931.8  7239.0   933.2  7837.0   934.0  8038.0   931.1  8083.0   930.0  8120.0
GR 929.8  8339.0   931.4  8777.0   929.3  8916.0   931.1  8945.0   929.8  9282.0
GR 929.1  9911.0   927.0  9920.0   927.0 10000.0   925.9 10122.0   925.5 10364.0
GR 925.5 10456.0   925.5 10490.0   931.1 10701.0   931.6 11006.0   930.6 11200.0
    30.4 11242.0   934.9 11261.0   931.9 11306.0   933.2 11377.0   934.8 11409.0
    36.3 12061.0   941.3 12490.0
HD  1.33      10    8000   10456
NC 0.045    0.05   0.035
X1  1.71      44    9091 10284.4    2000    2585    2480
X3     10
GR 940.9  5684.9   943.3  5808.0   945.3  6004.6   945.1  6078.9   947.4  6100.1
GR 947.4  6117.9   939.1  6148.7   948.7  6187.8   948.6  6226.4   934.0  6296.9
GR 936.8  6795.4   942.6  6807.8   942.6  6816.3   935.2  6833.2   933.6  7016.1
GR 935.7  7029.0   935.7  7052.6   932.4  7065.5   932.0  7135.0   934.3  7164.7
GR 934.3  7198.3   931.9  7209.5   934.6  7333.9   933.3  7541.5   933.4  7601.4
GR 936.1  7704.9   936.0  8010.3   935.3  8305.9   935.8  8591.1   935.4  8888.0
GR 935.8  9091.0   933.0  9104.6   933.1  9230.9   931.1  9247.7   929.7  9534.8
GR 928.2  9542.9   928.2  9966.4   928.2 10000.0   930.4 10058.7   930.5 10277.8
GR 935.9 10284.4   941.2 10511.3   951.5 11351.7   952.3 11442.6
HD  1.71      10    9091 10284.4
X1  2.02      31  8839.4 10077.3     890    2065    1965
X3     10
GR 950.0  5981.1   948.6  6066.6   951.6  6121.6   954.7  6293.7   955.1  6434.3
GR 940.7  6514.7   939.9  6533.9   937.1  6557.3   936.4  6934.6   937.1  7244.1
GR 944.6  7260.1   944.6  7278.4   937.0  7304.1   936.3  7340.1   938.6  7388.3
GR 938.4  7687.8   936.3  7711.0   938.5  7824.6   938.8  7961.0   937.2  8390.4
GR 938.4  8544.9   938.1  8839.4   935.2  8854.5   935.2  9121.5   935.4  9418.2
GR 934.2  9860.0   932.7  9918.6   933.3 10000.0   934.5 10062.4   944.8 10077.3
GR 944.8 10079.1
HD  2.02      10    8000   10070
NC   .04     .04    .035
X1  2.60      26    9437   10850    2700    2945    3320
X3     10
GR 967.1    7292   967.4  7442.4   961.7  7739.8   957.5  7927.3   953.0  8217.8
GR 947.7  8560.5   944.7  8730.1   944.9  9057.3   944.8  9437.0   940.5  9449.9
GR 941.9  9684.7   939.6  9951.4   939.6 10000.0   939.6 10090.3   941.7 10102.7
GR 943.1 10322.7   940.5 10500.3   946.6 10580.6   946.6 10625.8   945.8 10652.9
GR 942.2 10671.4   943.4 10811.0   943.6 10850.0   944.8 11140.9   954.6 11152.0
GR 954.6   11164
HD  2.60      10    9437   10850
    2.80      19    9200   11222    1250     655    1000
X3     10
GR 956.4  8817.0   952.8  8856.3   944.9  9060.9   943.4    9200   943.2  9214.4
GR 943.5  9447.6   942.0 10000.0   943.9 10091.2   943.9 10170.9   942.8 10185.3
GR 943.0 10439.2   945.6 10464.6   945.8 10582.0   943.7 10628.0   945.8 10774.1
GR 945.7 10820.4   942.3 10890.9   945.9 11203.4   956.6   11222
HD  2.80      10    9150   10850
X1  3.27      17  9692.6 11130.5    2800    1995    2505
X3     10
GR 961.5  7808.3   958.3  8137.4   956.3  8362.4   953.4  9316.6   950.7  9692.6
```

```
GR 945.5  9724.1   944.5  9770.5   944.8 10000.0   944.8 10158.6   951.4 10188.1
GR 947.8 10278.9   948.5 10405.5   944.5 10606.9   944.5 10822.2   945.7 10915.2
GP   8.5 11116.0   960.5 11130.5
H     27      10    9300 11130.5
X1  .37      17  9716.5 10970.3     585     460     510
X3    10
GR 961.6  7874.4   957.2  8296.6   954.5  8930.2   950.8  9667.0   950.9  9716.5
GR 945.1  9738.3   945.1 10000.0   945.5 10237.8   948.9 10256.9   946.7 10280.2
GR 945.1 10477.2   945.1 10515.3   945.6 10619.0   943.4 10669.0   950.7 10741.4
GR 949.3 10945.1   961.9 10970.3
HD  3.37      10    9500 10970.3
X1  3.43      12  9758.5 10873.4     925     795     850
X3    10
GR 961.5  7958.9   957.8  8287.1   956.3  8796.5   955.8  9654.5   953.0  9684.2
GR 952.8  9758.5   946.2  9788.6   946.0 10000.0   946.0 10271.7   951.1 10293.1
GR 951.1 10849.9   963.7 10873.4
HD  3.43      10    9650 10873.4
X1 3.729     6.0    9420   10603    1575    1585    1580
X3    10
GR 972.0    9405     968    9420   952.2    9425   952.2   10588   967.2   10603
GR 967.2   10613
HD 3.729      10    9420   10603
NC                     0.3     0.5
X1 3.734    63.0  9400.9 10599.3      25      25      25
X3    10
GR 972.4  9400.8   967.5  9400.9   952.3  9416.0   952.3  9422.1   952.3  9474.5
GR 952.3  9474.6   952.3  9481.6   952.3  9481.7   952.3  9554.7   952.3  9554.8
GR 952.3  9561.8   952.3  9561.9   952.3  9634.6   952.3  9634.7   952.3  9641.7
GR 952.3  9641.8   952.3  9714.5   952.3  9714.6   952.3  9721.6   952.3  9721.7
GR 952.3  9794.7   952.3  9794.8   952.3  9801.8   952.3  9801.9   952.3  9874.9
GR 952.3  9875.0   952.3  9882.0   952.3  9882.1   952.3  9955.1   952.3  9955.2
GR 952.3  9962.2   952.3  9962.3   952.3 10034.9   952.3 10035.0   952.3 10042.0
GR 952.3 10042.1   952.3 10115.1   952.3 10115.2   952.3 10122.2   952.3 10122.3
GR 952.3 10194.8   952.3 10194.9   952.3 10201.9   952.3 10202.0   952.3 10275.0
GR 952.3 10275.1   952.3 10282.1   952.3 10282.2   952.3 10355.2   952.3 10355.3
GR 952.3 10362.3   952.3 10362.4   952.3 10434.9   952.3 10435.0   952.3 10442.0
GR 952.3 10442.1   952.3 10515.1   952.3 10515.2   952.3 10522.2   952.3 10522.3
GR 952.3 10585.2   967.6 10599.3   971.1 10599.4
H   734      10  9400.9 10599.3
X    757     7.0    9425   10555     120     120     120
X3    10
GR 968.3  9400.0   966.5  9425.0   952.3  9454.0   952.4  9708.0   952.1 10000.0
GR 952.1 10538.0   967.7 10555.0
HD 3.757      10    9425   10555
X1 3.767      92  9428.1 10572.0      50      50      50
X3    10
GR 970.9  9428.0   966.9  9428.1   952.9  9457.5   952.9  9457.6   952.9  9460.6
GR 952.9  9460.7   952.9  9492.4   952.9  9492.5   952.9  9498.5   952.9  9498.6
GR 952.9  9510.4   952.9  9510.5   952.9  9513.5   952.9  9513.6   952.9  9525.5
GR 952.9  9525.6   952.9  9528.6   952.9  9528.7   952.9  9540.4   952.9  9540.5
GR 952.9  9543.5   952.9  9543.6   952.9  9555.4   952.9  9555.5   952.9  9558.5
GR 952.9  9558.6   952.9  9570.4   952.9  9570.5   952.9  9573.5   952.9  9573.6
GR 952.9  9585.4   952.9  9585.5   952.9  9588.5   952.9  9588.6   952.9  9600.4
GR 952.9  9600.5   952.9  9625.0   952.9  9625.1   952.9  9761.9   966.1  9762.0
GR 966.1  9778.0   952.9  9778.1   952.9  9915.0   966.1  9915.1   966.1  9931.1
GR 952.9  9931.2   952.9 10068.9   966.1 10069.0   966.1 10085.0   952.9 10085.1
GR 952.9 10220.9   966.1 10221.0   966.1 10237.0   952.9 10237.1   952.9 10374.9
GR 952.9 10375.0   952.9 10400.2   952.9 10400.3   952.9 10410.9   952.9 10411.0
GR 952.9 10414.9   952.9 10415.0   952.9 10426.9   952.9 10427.0   952.9 10430.0
GR 952.9 10430.1   952.9 10441.8   952.9 10441.9   952.9 10444.9   952.9 10445.0
GR 952.9 10456.9   952.9 10457.0   952.9 10460.0   952.9 10460.1   952.9 10472.0
GR 952.9 10472.1   952.9 10475.1   952.9 10475.2   952.9 10486.9   952.9 10487.0
GR 952.9 10490.0   952.9 10490.1   952.9 10501.9   952.9 10502.0   952.9 10508.9
GR 952.9 10509.0   952.9 10540.8   952.9 10540.9   952.9 10543.9   952.9 10544.0
GR 967.2 10571.9   970.9 10572.0
HD 3.767      10  9428.1   10572
NC  0.04    0.04    0.03     0.1     0.3
            ------GRADE CONTROL U/S BUCKEYE ROAD--------
X1 4.092     7.0    9440   10578    1760    1750    1755
X3    10
GR 973.3  9440.0   955.2  9465.0   955.2  9757.0   955.2 10000.0   955.2 10558.0
GR 973.0 10578.0   973.0 10582.0
HD 4.092       0    9440   10578
X1 4.094     7.0    9440   10578      10      10      10
X     10
G    3.3  9440.0   958.5  9465.0   958.5  9757.0   958.5 10000.0   958.5 10558.0
GR 973.0 10578.0   973.0 10582.0
HD 4.094       0    9440   10578
X1  4.30     7.0    9458   10594    1040    1040    1040
X3    10
GR 974.8  9458.0   959.6  9475.0   958.7  9760.0   957.6 10000.0   958.6 10293.0
GR 961.1 10573.0   974.9 10594.0
HD  4.30      10    9480   10570
X1  4.70     9.0    9451   10579    2205    2065    2135
```

```
X3     10
GR 978.4  9440.0   978.4  9451.0   961.5  9467.0   960.2  9774.0   959.1 10000.0
GR 961.1 10353.0   962.8 10562.0   978.8 10579.0   978.9 10595.0
    4.70      10    9451   10579
X1  4.754    53.0  9402.5 10572.3     150     310     225
X3     10
XL                       9402.5 10572.3
GR 973.0  7150.0   972.7  8115.0   973.6  8831.0   984.3  9296.0   988.1  9402.5
GR 988.1  9427.7   980.6  9427.8   960.3  9445.8   960.3  9525.5   960.3  9525.6
GR 960.3  9537.6   960.3  9537.7   960.3  9641.5   960.3  9641.6   960.3  9653.6
GR 960.3  9653.7   960.3  9757.4   960.3  9757.5   960.3  9769.5   960.3  9769.6
GR 960.3  9873.4   960.3  9873.5   960.3  9885.5   960.3  9885.6   960.3  9997.8
GR 960.3  9997.9   960.3 10009.9   960.3   10010   960.3 10105.8   960.3 10105.9
GR 960.3 10117.9   960.3 10118.0   960.3 10221.3   960.3 10221.4   960.3 10233.4
GR 960.3 10233.5   960.3 10337.9   960.3 10338.0   960.3 10349.0   960.3 10349.1
GR 960.3 10453.5   960.3 10453.6   960.3 10465.6   960.3 10465.7   960.3 10555.9
GR 981.2 10572.3   988.7 10572.4   988.7 10597.0   987.2 10612.0   978.1 11023.0
GR 978.7 11497.0   980.6 12014.0   982.4 12466.0
HD 4.754      10  9402.5 10572.3
X1  4.79     6.0    9440   10590     357     187     277
GR 980.2  9440.0   964.0  9466.0   961.1 10000.0   964.6 10568.0   980.8 10590.0
GR 980.8 10600.0
HD  4.79      10    9440   10590
X1  5.15     9.0    9291   10713    1780    1960    1873
GR 986.0  9275.0   986.0  9291.0   969.9  9310.0   968.1  9678.0   967.4 10000.0
GR 968.7 10469.0   968.9 10691.0   986.0 10713.0   986.0 10720.0
HD  5.15      10    9291   10590
          ------------GRADE CONTROL STRUCTURE DOWNSTREAM OF I-10-------
X1 5.201     9.0    9291   10713     180     360     270
GR 987.0  9275.0   987.0  9291.0   969.1  9310.0   969.1  9678.0   969.1 10000.0
GR 969.1 10469.0   969.1 10691.0   987.0 10713.0   987.0 10720.0
HD 5.201       0    9291   10713
X1 5.203     9.0    9291   10713      10      10      10
GR 987.0  9275.0   987.0  9291.0   970.0  9310.0   970.0  9678.0   970.0 10000.0
GR 970.0 10469.0   970.0 10691.0   987.0 10713.0   987.0 10720.0
HD 5.203       0    9291   10713
X1 5.290      82  9250.8 10672.4     505     675     585
GR 994.5  9250.7   986.4  9250.8   971.5  9277.5   971.5  9318.7   971.5  9318.8
GR  71.5  9323.4   971.5  9323.5   971.5  9389.9   971.5  9390.0   971.5  9394.5
    71.5  9394.6   971.5  9460.9   971.5  9461.0   971.5  9465.6   971.5  9465.7
GR 971.5  9532.1   971.5  9532.2   971.5  9536.8   971.5  9536.9   971.5  9603.3
GR 971.5  9603.4   971.5  9608.0   971.5  9608.1   971.5  9674.5   971.5  9674.6
GR 971.5  9679.2   971.5  9679.3   971.5  9745.7   971.5  9745.8   971.5  9750.4
GR 971.5  9750.5   971.5  9816.9   971.5  9817.0   971.5  9821.6   971.5  9821.7
GR 971.5  9888.1   971.5  9888.2   971.5  9892.8   971.5  9892.9   971.5  9959.3
GR 971.5  9959.4   971.5  9964.0   971.5  9964.1   971.5 10030.0   971.5 10030.1
GR 971.5 10034.7   971.5 10034.8   971.5 10101.2   971.5 10101.3   971.5 10105.9
GR 971.5 10106.0   971.5 10172.3   971.5 10172.4   971.5 10177.0   971.5 10177.1
GR 971.5 10243.7   971.5 10243.8   971.5 10248.4   971.5 10248.5   971.5 10314.9
GR 971.5 10315.0   971.5 10319.6   971.5 10319.7   971.5 10386.0   971.5 10386.1
GR 971.5 10390.7   971.5 10390.8   971.5 10457.2   971.5 10457.3   971.5 10461.9
GR 971.5 10462.0   971.5 10528.4   971.5 10528.5   971.5 10533.0   971.5 10533.1
GR 971.5 10599.5   971.5 10599.6   971.5 10604.2   971.5 10604.3   971.5 10645.5
GR 989.4 10672.3   997.7 10672.4
HD 5.290      10  9250.8 10672.4
X1 5.380    20.0  9266.0 10656.0     305     645     465
GR 993.0  9214.0   987.7  9266.0   985.7  9342.0   972.8  9358.0   972.3  9413.0
GR 972.2  9565.0   972.2  9734.0   972.2  9889.0   972.2  9994.0   971.4 10000.0
GR 971.4 10062.0   971.4 10195.0   974.3 10208.0   974.2 10263.0   974.2 10420.0
GR 974.2 10582.0   974.2 10639.0   988.4 10656.0   988.6 10671.0   982.3 10702.0
HD 5.380      10    9266   10656
          ----------MCDOWELL ROAD------
X1 5.689      42  9371.3 10552.8    1320    1740    1620
GR 996.9  9371.2   990.8  9371.3  973.85  9399.5  973.85  9488.7  973.85  9488.8
GR973.85  9496.2  973.85  9496.3  973.85  9606.6  973.85  9606.7  973.85  9614.1
GR973.85  9614.2  973.85  9725.8  973.85  9725.9  973.85  9733.3  973.85  9733.4
GR973.85  9843.3  973.85  9843.4  973.85  9850.8  973.85  9850.9  973.85  9961.3
GR973.85  9961.4  973.85  9968.8  973.85  9968.9  973.85 10078.9  973.85 10079.0
GR973.85 10086.4  973.85 10086.5  973.85 10196.2  973.85 10196.3  973.85 10203.7
GR973.85 10203.8  973.85 10314.4  973.85 10314.5  973.85 10321.9  973.85 10322.0
GR973.85 10432.1  973.85 10432.2  973.85 10439.6  973.85 10439.7  973.85 10524.6
GR 990.8 10552.8   996.9 10552.9
HD 5.689      10  9371.3 10552.8
X1 5.750    22.0  9426.0 10579.0     370     370     370
GR  90.7  9287.0   990.7  9295.0   985.9  9330.0   983.9  9362.0   985.6  9388.0
GR  90.1  9416.0   990.3  9426.0   975.3  9477.0   975.3  9595.0   975.5  9715.0
GR 975.5  9864.0   975.5  9981.0   974.0  9994.0   973.7 10030.0   973.7 10095.0
GR 973.7 10244.0   975.6 10259.0   975.6 10349.0   975.7 10474.0   975.7 10565.0
GR 989.2 10579.0   989.6 10596.0
HD 5.750      10    9426   10579
X1 5.900    17.0  9429.0 10561.0     945     950     950
GR 993.0  9414.0   993.0  9429.0   977.5  9447.0   977.5  9506.0   977.5  9598.0
GR 977.5  9714.0   977.6  9829.0   977.4  9946.0   975.4  9958.0   975.5 10040.0
GR 975.5 10099.0   975.5 10230.0   977.4 10257.0   977.6 10344.0   977.6 10459.0
```

```
GR 977.6 10544.0   991.1 10561.0
HD 5.900   10       9429   10561
          -------GRADE CONTOL STRUCTURE UPSTREAM OF MCDOWELL-------
X    068    15.0  9416.0 10545.0     907     897     902
Gk 992.7  9416.0   979.3  9431.0   979.3  9490.0   979.2  9585.0   979.2  9712.0
GR 979.0  9831.0   978.7  9925.0   976.7  9971.0   976.7 10000.0   976.7 10114.0
GR 976.7 10208.0   977.8 10260.0   978.4 10376.0   978.6 10528.0   992.4 10545.0
HD 6.068       0  9416.0 10545.0
X1 6.070    15.0  9416.0 10545.0       8       8       8
GR 992.7  9416.0   979.3  9431.0   979.3  9490.0   979.2  9585.0   979.2  9712.0
GR 979.0  9831.0   978.7  9925.0   976.7  9971.0   976.7 10000.0   976.7 10114.0
GR 976.7 10208.0   977.8 10260.0   978.4 10376.0   978.6 10528.0   992.4 10545.0
HD 6.070       0  9416.0 10545.0
X1 6.430    20.0  9452.0 10537.0    2045    1850    1945
GR 996.1  9390.0   991.8  9409.0   991.6  9433.0   996.5  9443.0   996.5  9452.0
GR 984.1  9467.0   984.0  9528.0   984.3  9631.0   984.3  9768.0   984.1  9894.0
GR 983.2  9980.0   981.0 10000.0   981.0 10057.0   981.3 10156.0   981.9 10213.0
GR 983.2 10232.0   983.2 10359.0   982.5 10519.0   996.1 10537.0   996.1 10550.0
HD 6.430      10     9452   10537
X1 6.820    17.0  9444.0 10573.0    2145    1820    1980
GR1002.7  9434.0  1002.7  9444.0   989.2  9465.0   987.3  9582.0   985.9  9607.0
GR 985.7  9745.0   985.9  9860.0   984.8  9990.0   984.8 10000.0   985.9 10065.0
GR 988.4 10076.0   988.4 10157.0   988.0 10268.0   988.0 10400.0   988.0 10557.0
GR1001.0 10573.0  1001.0 10591.0
HD 6.820      10     9444   10573
                                     357     357     357
            -------------GRADE CONTROL STRUCTURE D/S OF THOMAS RD-------------
X1 6.888    16.0  9439.0 10577.0     357     357     357
GR1004.2  9428.0  1004.2  9439.0   989.9  9461.0   989.9  9574.0   989.9  9700.0
GR 989.8  9818.0   989.4  9954.0   989.4  9973.0   989.4 10000.0   989.4 10039.0
GR 989.4 10132.0   989.4 10266.0   989.4 10427.0   989.4 10558.0  1002.7 10577.0
GR1002.7 10588.0
HD 6.888       0     9439   10577
X1 6.890    16.0  9439.0 10577.0       8       8       8
GR1004.2  9428.0  1004.2  9439.0   989.9  9461.0   989.9  9574.0   989.9  9700.0
GR 989.8  9818.0   989.4  9954.0   989.4  9973.0   989.4 10000.0   989.4 10039.0
GR 989.4 10132.0   989.4 10266.0   989.4 10427.0   989.4 10558.0  1002.7 10577.0
GR1002.7 10588.0
H    890       0     9439   10577
X    910    17.0  9430.0 10579.0     105     115     110
GR1002.8  9417.0  1002.8  9430.0   989.5  9452.0   989.9  9524.0   989.9  9677.0
GR 989.9  9807.0   989.5  9970.0   989.5 10000.0   989.5 10018.0  1000.2 10037.0
GR1000.2 10125.0   989.8 10142.0   989.8 10236.0   989.8 10390.0   989.8 10561.0
GR1002.7 10579.0  1002.7 10589.0
HD 6.910      10     9430   10579
X1 6.930    17.0  9413.0 10573.0     105     105     105
GR1004.8  9405.0  1004.8  9413.0   999.9  9417.0   999.9  9426.0   989.9  9442.0
GR 989.9  9572.0   989.9  9706.0   990.0  9833.0   990.1  9955.0   989.9 10000.0
GR 989.9 10053.0   989.9 10201.0   989.9 10359.0   990.1 10545.0   990.9 10558.0
GR1003.9 10573.0  1003.9 10582.0
HD 6.930      10     9413   10573
X1 6.990    19.0  9400.0 10559.0     315     355     335
GR1003.3  9393.0  1003.4  9400.0   997.4  9411.0   997.3  9418.0   991.4  9429.0
GR 991.4  9534.0   991.1  9695.0   991.1  9871.0   991.1 10000.0   991.1 10072.0
GR 991.2 10186.0   991.3 10300.0   998.4 10313.0   998.4 10323.0   998.4 10404.0
GR 990.2 10418.0   990.2 10540.0  1003.5 10559.0  1004.0 10574.0
HD 6.990      10     9400   10559
X1 7.490    13.0  9509.0 10525.0    2645    2610    2595
GR1009.5  9493.0  1009.5  9509.0   995.2  9526.0   995.4  9612.0   995.6  9736.0
GR 995.5  9871.0   995.3 10000.0   995.3 10064.0   995.4 10173.0   995.7 10289.0
GR 995.7 10474.0  1010.9 10525.0  1010.9 10541.0
HD 7.490      10     9509   10525
           -------GRADE CONTROL STRUCTURE DOWNSTREAM FACE OF INDIAN SCHOOL RD BRI
X1 7.988    37.0  9293.0 10732.0    2805    2480    2625
X3    10
GR1012.2  8010.0  1013.2  8065.0  1014.0  8150.0  1012.5  8436.0  1010.7  8709.0
GR1010.4  8948.0  1017.0  9058.0  1017.0  9110.0  1009.4  9176.0  1015.2  9236.0
GR1014.9  9293.0   999.2  9338.0   999.2  9550.0   999.1  9925.0   999.1  9990.0
GR 999.1 10000.0   999.1 10303.0   999.3 10681.0  1014.8 10732.0  1017.3 10907.0
GR1010.5 10932.0  1010.0 11152.0  1015.2 11167.0  1015.2 11213.0  1007.3 11242.0
GR1007.1 11529.0  1007.2 11773.0  1006.9 11957.0  1007.1 12138.0  1007.1 12341.0
GR1006.9 12504.0  1009.2 12604.0  1009.9 12677.0  1014.2 12703.0  1015.0 12810.0
GR1016.3 12943.0  1016.3 12959.0
HD 988       0  9293.0 10732.0
X    990    37.0  9293.0 10732.0      10      10    10.5
X    10
GR1012.2  8010.0  1013.2  8065.0  1014.0  8150.0  1012.5  8436.0  1010.7  8709.0
GR1010.4  8948.0  1017.0  9058.0  1017.0  9110.0  1009.4  9176.0  1015.2  9236.0
GR1014.9  9293.0   999.2  9338.0   999.2  9550.0   999.1  9925.0   999.1  9990.0
GR 999.1 10000.0   999.1 10303.0   999.3 10681.0  1014.8 10732.0  1017.3 10907.0
GR1010.5 10932.0  1010.0 11152.0  1015.2 11167.0  1015.2 11213.0  1007.3 11242.0
GR1007.1 11529.0  1007.2 11773.0  1006.9 11957.0  1007.1 12138.0  1007.1 12341.0
GR1006.9 12504.0  1009.2 12604.0  1009.9 12677.0  1014.2 12703.0  1015.0 12810.0
GR1016.3 12943.0  1016.3 12959.0
```

```
HD 7.990        0  9293.0 10732.0
NC                          .3       .5
          ---------INDIAN SCHOOL ROAD------
1    000       85  9235.5  10725.      50       50       50
X3    10
XL                        9235.5   10725
GR1014.4  7828.0  1015.5  8173.0  1016.3  8411.0  1017.9  8735.0  1018.7  9144.0
GR1018.6  9235.4  1013.3  9235.5   999.2  9263.1   999.2  9271.2   999.2  9271.3
GR 999.2  9285.3   999.2  9285.4   999.2  9362.9   999.2  9363.0   999.2  9377.0
GR 999.2  9377.1   999.2  9452.9   999.2  9453.0   999.2  9467.0   999.2  9467.1
GR 999.2  9542.9   999.2  9543.0   999.2  9557.0   999.2  9557.1   999.2  9632.9
GR 999.2  9633.0   999.2  9647.0   999.2  9647.1   999.2  9722.9   999.2  9723.0
GR 999.2  9737.0   999.2  9737.1   999.2  9812.9   999.2  9813.0   999.2  9827.0
GR 999.2  9827.1   999.2  9902.9   999.2  9903.0   999.2  9917.0   999.2  9917.1
GR 999.2  9992.9   999.2  9993.0   999.2 10007.0   999.2 10007.1   999.2 10082.9
GR 999.2 10083.0   999.2 10097.0   999.2 10097.1   999.2 10172.9   999.2 10173.0
GR 999.2 10187.0   999.2 10187.1   999.2 10262.9   999.2 10263.0   999.2 10277.0
GR 999.2 10277.1   999.2 10352.8   999.2 10352.9   999.2 10366.9   999.2 10367.0
GR 999.2 10442.9   999.2 10443.0   999.2 10457.0   999.2 10457.1   999.2 10532.9
GR 999.2 10533.0   999.2 10547.0   999.2 10547.1   999.2 10622.9   999.2 10623.0
GR 999.2 10637.0   999.2 10637.1   999.2 10697.5  1013.3 10725.0  1021.3 10725.1
GR1018.6 10725.2  1016.4 10735.0  1017.3 10914.0  1016.9 11234.0  1012.8 11759.0
GR1013.2 12195.0  1013.8 12510.0  1014.9 12742.0  1016.1 13028.0  1018.6 13458.0
HD 8.000       10  9235.5   10725
    ************* DOWNSTREAM LIMIT OF INDIAN SCHOOL 1-S *****************
    ***********************************************************************
NC                          0.1      0.3
X1 8.105       91  9493.9 10978.6      405      745  522.59
X3    10
XL                         9400 10978.6
GR1015.2  8211.4  1015.3  8277.1  1010.8  8330.6  1009.3  8341.9  1009.3  8372.5
GR1011.2  8392.0  1011.2  8467.9  1009.9  8559.8  1009.8  8618.0  1009.3  8629.1
GR1008.8  8657.4  1008.1  8664.5  1006.7  8671.1  1005.9  8676.7  1005.3  8685.7
GR1008.0  8694.0  1007.4  8712.9  1007.2  8759.6  1007.6  8767.4  1007.3  8945.8
GR1007.7  8986.4  1007.0  9027.6  1006.6  9098.5  1006.1  9130.7  1007.5  9189.4
GR1011.7  9241.0  1013.1  9281.5  1014.3  9352.7  1015.1  9381.7  1004.4  9401.0
GR1002.0  9404.5  1002.1  9413.6  1000.7  9416.1  1000.8  9423.2  1002.3  9432.7
GR1001.8  9493.9  1001.9  9540.9  1001.0  9545.5  1000.9  9563.5  1001.1  9565.1
(     1.5  9581.8  1002.2  9583.6  1002.9  9587.6  1002.8  9594.1  1003.1  9599.5
G     4.8  9613.8  1002.9  9623.8  1001.5  9649.6  1002.2  9701.5  1001.6  9791.9
GR1002.5  9801.8  1002.6  9835.3  1001.6  9840.4  1001.1  9856.5  1003.0  9863.7
GR1001.8  9909.1  1002.1  9961.6  1002.0  9995.6  1001.0 10012.9  1000.7 10057.2
GR1000.8 10168.4  1000.5 10169.9  1002.7 10181.4  1003.2 10220.5  1002.5 10428.1
GR1001.9 10536.6  1002.1 10732.3  1001.6 10813.5  1001.7 10895.2  1000.8 10949.7
GR1001.5 10964.0  1001.4 10978.6  1001.3 10997.9  1001.1 11037.6  1000.5 11077.1
GR1001.9 11081.4  1003.0 11094.1  1002.0 11108.9  1001.7 11110.1  1005.8 11120.6
GR1010.4 11129.8  1008.8 11140.0  1008.9 11273.0  1008.4 11417.4  1009.5 11426.7
GR1008.8 11471.3  1010.6 11534.8  1011.0 11604.6  1010.7 11613.6  1009.8 11618.7
GR1009.6 11624.4
HD 8.105       10     9400 10978.6
X1 8.198       92  9458.7 10971.0      420      620  490.43
X3                         9458.6     1010   109711     1010
XL                           9400    11100
GR1013.7  7538.8  1013.7  7659.7  1013.0  7679.9  1012.1  7681.9  1012.2  7702.4
GR1009.4  7704.2  1009.4  7707.5  1011.7  7718.2  1011.0  7757.7  1010.6  7818.7
GR1009.9  7842.6  1009.7  7956.3  1010.5  8028.5  1010.8  8229.1  1011.2  8250.2
GR1011.0  8283.7  1011.2  8445.3  1011.6  8447.8  1011.8  8453.3  1011.5  8465.8
GR1010.7  8469.4  1010.2  8484.3  1010.7  8495.1  1011.0  8542.9  1009.4  8558.4
GR1007.8  8568.0  1007.4  8575.1  1007.6  8611.0  1006.2  8674.1  1006.4  8788.0
GR1005.6  8837.3  1005.5  8883.8  1004.3  8938.3  1004.6  9047.4  1003.7  9102.0
GR1003.1  9193.7  1003.0  9320.6  1003.2  9389.6  1016.4  9413.0  1016.7  9455.0
GR1014.9  9458.7  1006.2  9474.2  1003.0  9479.0  1002.7  9484.7  1003.3  9489.8
GR1002.2  9512.1  1002.6  9529.9  1004.0  9536.6  1003.7  9541.4  1003.4  9592.1
GR1004.0  9620.4  1004.1  9647.5  1003.4  9715.0  1002.5  9730.9  1002.0  9756.6
GR1003.0  9851.4  1002.2  9972.1  1002.5  9983.7  1002.0 10053.3  1001.5 10071.8
GR1002.5 10093.2  1003.1 10143.0  1002.7 10193.2  1003.7 10230.0  1002.2 10240.8
GR1001.9 10266.0  1003.7 10292.6  1003.3 10497.1  1002.8 10629.5  1003.2 10847.7
GR1003.0 10958.7  1015.8 10971.0  1015.7 10984.6  1015.3 10990.1  1011.0 11007.3
GR1010.7 11051.4  1010.2 11065.9  1010.6 11074.9  1010.2 11120.5  1010.3 11154.3
GR1009.3 11167.8  1009.5 11177.5  1007.9 11194.6  1007.4 11229.6  1007.8 11253.3
GR1011.7 11279.9  1012.3 11327.5  1011.2 11391.5  1012.2 11447.8  1012.1 11502.4
GR1012.9 11568.6  1013.0 11705.6
HD 8.198       10  9458.7   10971
NC    040     .040     .035
     ----------Gravel Mine Between Camelback Road and Indian School----------
     ************DOWNSTREAM LIMIT OF INDIAN SCHOOL 2-S******************
   ***********************************************************************
X1 8.433       87  9583.1 10597.5     1155     1365 1241.36
X3                         9009.5     1012    11000     1012
XL                           9000 10597.5
GR1016.6  5737.3  1015.2  5913.0  1011.2  5923.1  1011.2  5929.8  1015.2  5938.3
GR1013.0  6101.5  1013.1  6236.2  1012.0  6437.5  1011.5  6682.9  1010.8  6885.4
GR1011.3  6918.9  1013.3  6929.4  1014.0  6941.7  1012.7  6944.3  1011.1  6952.1
GR1011.1  6957.5  1012.4  6964.4  1010.1  6973.7  1011.4  7022.6  1011.2  7053.6
```

```
GR1010.3  7053.9  1010.3  7111.1  1011.8  7151.3  1011.0  7155.6  1012.0  7391.8
GR1011.6  7613.9  1012.1  7874.2  1013.4  8117.3  1013.0  8158.4  1014.3  8163.4
G   14.4  8173.5  1012.8  8179.0  1013.0  8214.2  1014.4  8284.9  1013.6  8286.3
    .2.9  8294.9  1014.2  8304.5  1012.9  8390.4  1013.0  8565.3  1008.1  8767.6
GR1006.0  8952.1  1020.6  8973.4  1020.7  9009.5  1006.2  9025.2  1006.9  9130.7
GR1005.9  9153.1  1007.9  9194.9  1009.0  9401.2  1008.8  9516.9  1009.7  9523.9
GR1008.5  9529.4  1008.8  9564.7  1010.0  9583.1  1005.0  9600.1  1005.0  9755.8
GR1006.4  9786.9  1006.6  9828.4  1005.7  9854.9  1007.7  9870.6  1008.1 10010.8
GR1008.3 10123.7  1006.4 10265.7  1006.8 10307.4  1006.3 10480.7  1009.6 10507.5
GR1012.5 10519.8  1013.8 10597.5  1013.5 10766.3  1012.5 10795.4  1013.5 10816.7
GR1011.6 10827.2  1010.6 10883.1  1011.5 10884.0  1011.7 10991.4  1013.3 10999.4
GR1011.9 11154.1  1013.8 11176.2  1014.1 11233.5  1013.1 11268.3  1013.7 11274.5
GR1013.2 11293.3  1012.3 11294.1  1017.5 11322.2  1018.2 11337.1  1017.0 11359.4
GR1015.0 11376.3  1014.8 11586.0
HD 8.433      10    6300 10597.5
  *GR POINTS MODIFIED - BOTTOM OF GRAVEL MINE RAISED TO ELIMINATE NON-
  *EFFECTIVE FLOW AREA BETWEEN SECTIONS 8.534 TO 8.875.
X1 8.768      73  9584.7 10102.8    1735    1765 1764.77
X3                       8182.6    1018   11500    1018
XL                         9000   11000
GR1021.5  6820.4  1020.9  6871.9  1018.3  6891.7  1019.6  6913.5  1019.1  6923.6
GR1016.2  6931.0  1019.3  6940.2  1017.2  7099.1  1014.8  7135.2  1015.0  7168.0
GR1016.7  7199.0  1014.7  7325.5  1015.5  7354.6  1015.1  7667.5  1015.3  8018.9
GR1016.3  8177.8  1017.4  8182.6  1016.2  8185.7  1014.8  8221.7  1016.6  8233.2
GR1016.4  8609.8  1017.3  8912.1  1018.3  8921.6  1017.4  8929.1  1016.3  9053.3
GR1018.5  9082.6  1017.0  9103.2  1016.2  9147.4  1014.6  9168.7  1011.9  9186.9
GR1010.1  9230.0  1010.6  9376.9  1014.4  9399.6  1015.0  9575.4  1014.3  9584.7
GR1011.7  9596.2  1011.9  9616.7  1014.9  9627.9  1014.2  9882.6  1008.4  9901.1
GR1008.4 10075.9  1015.8 10102.8  1015.6 10460.9  1014.6 10627.3  1013.9 10650.0
GR1013.9 11250.5  1017.1 11275.3  1018.8 11523.5  1017.7 11656.2  1018.3 11826.0
GR1017.7 11888.7  1019.3 11923.5  1018.0 11936.7  1017.8 12001.1  1017.8 12505.3
GR1018.9 12523.0  1018.1 12551.7  1017.8 12561.4  1017.8 12885.4  1027.8 12901.0
GR1028.2 12921.5  1023.3 12934.8  1022.6 12954.5  1017.8 12997.1  1017.8 13068.9
GR1021.4 13136.0  1022.6 13179.3  1028.0 13212.5  1028.2 13251.1  1022.8 13271.3
GR1022.5 13295.0  1026.9 13348.6  1027.0 13388.5
HD 8.768      10    7000   11000
X1 8.992      92  9819.1 11458.9    1230    1000    1185
X3                         9300    1022   11545    1022
                           9700 11458.9
    .9.7  6650.5  1019.9  6869.8  1019.3  7088.8  1018.3  7308.1  1018.1  7357.4
GR1018.4  7405.7  1018.1  7504.7  1018.5  7653.7  1018.2  7853.7  1018.0  8053.8
GR1018.1  8264.5  1018.4  8468.0  1018.5  8703.9  1018.7  8903.9  1019.0  9027.4
GR1019.5  9087.0  1021.0  9090.7  1020.7  9100.0  1019.3  9109.2  1020.1  9296.8
GR1021.5  9328.8  1020.5  9349.7  1020.0  9438.9  1020.1  9504.0  1019.5  9556.4
GR1017.3  9599.3  1018.2  9666.3  1018.3  9706.1  1019.2  9732.7  1017.7  9759.7
GR1018.5  9768.4  1017.8  9819.1  1009.1  9833.6  1009.0  9846.9  1008.1  9861.1
GR1010.3  9909.7  1010.7  9990.4  1008.9 10005.9  1008.8 10022.3  1016.4 10042.0
GR1016.9 10052.9  1015.9 10160.6  1016.0 10270.5  1016.5 10316.7  1016.2 10350.3
GR1018.0 10379.5  1019.3 10546.0  1017.0 10601.9  1014.8 10621.9  1014.4 10655.5
GR1015.3 10874.6  1016.7 10991.6  1015.2 11039.4  1015.3 11125.6  1017.1 11151.2
GR1016.3 11204.2  1016.4 11261.7  1018.9 11299.8  1017.9 11310.6  1018.5 11319.2
GR1018.0 11328.3  1016.3 11336.4  1017.5 11339.8  1018.8 11349.2  1016.2 11362.2
GR1017.6 11368.0  1017.7 11375.3  1016.4 11385.1  1021.2 11407.1  1019.8 11426.3
GR1019.0 11458.9  1017.6 11474.7  1016.3 11480.5  1015.1 11493.3  1021.9 11515.7
GR1023.5 11522.7  1024.3 11529.3  1026.1 11539.3  1026.6 11545.6  1025.5 11561.6
GR1016.2 11587.4  1016.1 11604.1  1022.6 11633.5  1023.3 11713.8  1021.5 11863.3
GR1022.4 11891.7  1022.0 11904.7  1020.8 11918.2  1020.0 11940.3  1020.6 12044.9
GR1022.2 12097.0  1025.2 12129.3
HD 8.992      10    9700 11458.9
     ************UPSTREAM LIMIT OF INDIAN SCHOOL 2-S***********************
     ***********************************************************************
NC  0.05    0.05   0.035     0.3     0.5
     *************U/S CAMELBACK ROAD AND D/S OF NEW RIVER CONFLUENCE**************
     ************BEGIN SAND AND GRAVEL MINES BETWEEN CAMELBACK AND BETHANY HOME***
     ***********************************************************************************
X1 9.266      93  9725.9 11607.3    1539     889 1430.62
X3                       9439.6    1026   11700    1026
XL                         9725   11700
GR1024.3  7822.4  1024.5  8138.1  1024.7  8447.1  1024.9  8756.0  1024.2  9091.8
GR1023.4  9402.0  1023.3  9418.1  1024.2  9423.6  1021.6  9432.7  1024.2  9439.6
GR1022.9  9444.9  1022.4  9529.5  1020.2  9575.9  1022.3  9661.6  1022.1  9725.9
GR1013.9  9852.8  1017.2 10006.0  1013.9 10058.2  1013.7 10086.7  1017.3 10103.7
GR1016.8 10209.4  1015.7 10230.4  1016.6 10257.2  1014.7 10308.2  1014.3 10344.1
GR1018.0 10369.8  1017.8 10486.5  1019.5 10508.4  1021.4 10604.4  1021.3 10654.4
G    9.6 10685.0  1019.7 10704.5  1016.3 10751.4  1017.9 10770.7  1021.4 10905.8
G    .0.8 11021.8  1021.6 11204.6  1020.8 11252.1  1017.1 11283.4  1018.2 11404.6
GR1017.7 11468.4  1021.5 11607.3  1018.7 11635.1  1017.1 11660.6  1023.1 11704.5
GR1022.8 11728.9  1017.3 11752.5  1017.5 11789.2  1023.8 11815.8  1024.4 11854.6
GR1022.1 11954.6  1023.1 12278.8  1021.6 12459.7  1020.1 12472.3  1021.7 12489.4
GR1020.8 12507.6  1022.4 12660.6  1019.8 12672.3  1019.0 12686.2  1021.1 12714.1
GR1020.8 12727.1  1022.4 12754.6  1021.7 13004.7  1020.1 13039.2  1022.2 13104.7
GR1021.4 13173.2  1018.6 13185.1  1018.2 13192.5  1022.7 13202.6  1018.5 13212.1
GR1019.0 13244.7  1023.0 13254.3  1018.1 13265.2  1019.3 13347.4  1020.2 13359.6
GR1020.5 13394.8  1018.9 13405.5  1020.6 13454.7  1020.8 13490.7  1022.7 13501.3
```

```
GR1023.2 13532.9  1022.0 13542.7  1022.7 13554.9  1023.2 13887.5  1023.1 14188.9
GR1023.3 14504.7  1023.0 14515.6  1024.2 14522.5  1023.3 14526.3  1023.2 14854.7
G   3.8 15204.7  1024.1 15254.7  1024.1 15454.2
H     266      10    9440   15250
N   .05    0.05   0.035     0.1     0.3
X1 9.435      83  9548.8 11146.3     875     915  889.44
X3                          8158    1026   11839    1026
XL                          9540   11150
GR1026.4  8158.2  1026.9  8488.2  1026.6  8820.8  1026.6  9153.1  1027.0  9359.2
GR1024.3  9366.6  1026.9  9375.9  1025.8  9380.2  1024.1  9489.5  1025.0  9548.8
GR1019.4  9576.8  1019.2  9849.0  1018.4  9908.7  1019.6  9922.6  1015.2  9933.9
GR1015.4  9996.3  1018.3 10046.3  1018.6 10097.9  1017.2 10118.4  1017.3 10146.3
GR1016.2 10155.8  1016.5 10181.7  1020.3 10199.6  1021.2 10546.3  1020.0 10889.1
GR1020.7 11048.3  1019.4 11060.7  1023.5 11095.3  1023.2 11111.6  1025.8 11146.3
GR1025.1 11318.4  1022.3 11346.7  1023.9 11346.8  1025.4 11396.3  1023.4 11715.2
GR1024.4 11799.5  1023.5 11816.9  1031.5 11839.2  1024.4 11854.6  1023.6 12095.2
GR1026.5 12103.4  1023.3 12111.2  1023.4 12173.1  1021.8 12180.1  1025.3 12196.4
GR1026.7 12210.6  1024.4 12279.4  1024.9 12296.3  1023.9 12317.6  1024.1 12372.9
GR1025.8 12381.3  1024.7 12389.2  1026.0 12412.9  1025.1 12426.1  1022.6 12436.7
GR1024.1 12462.4  1023.1 12467.5  1023.5 12488.3  1027.8 12501.1  1023.6 12514.8
GR1024.8 12652.4  1024.8 12948.7  1025.7 13145.7  1023.8 13152.6  1024.7 13198.4
GR1028.4 13207.9  1028.1 13222.0  1024.3 13232.5  1023.0 13249.0  1023.7 13452.5
GR1028.8 13477.7  1028.7 13513.8  1024.3 13534.0  1023.4 13714.2  1020.2 13778.8
GR1020.1 14098.7  1020.7 14275.7  1025.3 14461.9  1025.7 14778.3  1024.9 15117.5
GR1025.7 15440.3  1028.8 15731.5  1030.3 15743.1
HD 9.435      10  9548.8 11146.3
QT
X1 9.696      91  9602.6 10996.2    1430    1330 1383.24
X3                          9015    1030   11702    1030
XL                          9600   13500
GR1029.9  7599.1  1029.2  7912.4  1029.7  8257.2  1030.5  8619.8  1029.9  8831.5
GR1028.9  8845.5  1028.1  8992.0  1029.5  9015.3  1026.3  9041.5  1020.9  9075.8
GR1019.3  9100.8  1019.0  9317.2  1023.7  9420.4  1023.3  9442.7  1024.3  9588.4
GR1026.2  9602.6  1026.1  9618.1  1027.9  9632.9  1026.0  9655.6  1027.2  9668.0
GR1027.6  9692.2  1028.3  9696.5  1026.7  9753.2  1027.0  9818.1  1022.2  9845.3
GR1020.6  9885.0  1022.9  9958.5  1022.2  9970.0  1022.9  9987.3  1022.2 10010.3
GR1024.7 10030.2  1025.6 10107.8  1025.2 10146.5  1024.5 10147.3  1024.7 10232.4
GR1018.7 10247.8  1018.7 10339.8  1020.3 10349.2  1022.2 10433.3  1021.8 10446.8
G   3.6 10545.7  1023.9 10724.6  1024.9 10739.3  1024.4 10971.5  1026.9 10996.2
G     8.4 11103.5  1026.2 11181.0  1027.7 11201.0  1027.4 11533.9  1028.1 11659.0
GR1027.1 11690.8  1029.1 11702.1  1024.2 11713.9  1023.4 11748.9  1024.0 11775.8
GR1023.2 12099.7  1024.0 12265.9  1024.8 12280.0  1025.1 12425.6  1022.1 12449.5
GR1021.3 12467.7  1022.9 12487.3  1025.4 12493.6  1025.4 12539.0  1023.3 12552.1
GR1025.5 12557.5  1024.9 12601.6  1025.9 12902.3  1027.4 13067.7  1030.4 13077.2
GR1027.9 13089.0  1026.4 13183.5  1025.5 13215.4  1027.3 13280.3  1028.4 13555.0
GR1027.3 13906.4  1027.2 14209.6  1027.1 14347.5  1028.2 14354.0  1028.0 14669.0
GR1027.3 14730.2  1027.7 15048.9  1028.6 15362.0  1028.8 15462.4  1028.7 15548.9
GR1030.4 15610.3  1034.4 15621.3  1034.8 15633.1  1030.2 15641.5  1029.5 15651.1
GR1030.2 15663.0
HD 9.696      10    9600   11750
          -------SOUTH OF GLENDALE AIRPORT------
     --------------SAND AND GRAVEL MINE WEST OF GLENDALE AIRPORT---------
X1 9.885      91  9327.8 10706.6    1090     825  996.40
X3                          9327.8    1032   12100    1032
XL                          9327.8   12800
GR1039.2  7565.7  1040.2  7662.3  1034.6  7685.9  1030.3  7700.2  1031.3  7867.8
GR1029.7  7916.4  1027.5  7931.4  1026.9  7950.4  1030.6  7976.2  1031.5  7997.4
GR1036.9  8022.8  1038.7  8074.4  1037.7  8126.1  1038.6  8229.3  1030.0  8275.0
GR1029.1  8298.7  1024.4  8321.0  1023.7  8351.4  1031.1  8385.8  1031.2  8512.7
GR1033.1  8528.7  1031.2  8560.8  1030.8  8895.1  1030.9  8906.2  1029.6  8919.4
GR1029.8  9072.1  1029.1  9082.1  1030.3  9093.1  1029.6  9210.6  1032.3  9290.7
GR1030.8  9299.0  1031.3  9327.8  1026.1  9346.9  1027.3  9423.2  1028.4  9430.8
GR1029.2  9506.5  1028.0  9575.4  1029.3  9589.9  1028.9  9891.7  1028.8  9906.9
GR1023.8  9943.1  1021.1 10038.7  1023.4 10078.6  1026.8 10380.8  1027.1 10669.0
GR1029.9 10706.6  1028.7 11026.7  1028.5 11086.3  1027.3 11098.7  1028.9 11111.9
GR1028.5 11220.7  1028.4 11325.3  1027.6 11358.6  1028.7 11372.0  1025.8 11398.6
GR1029.1 11415.3  1028.9 11748.4  1028.5 11808.8  1030.7 11828.7  1031.0 12156.6
GR1030.4 12166.2  1030.1 12236.2  1031.4 12257.8  1031.2 12452.6  1028.4 12472.0
GR1031.1 12656.6  1030.8 12906.6  1029.6 12946.3  1031.2 13006.6  1030.2 13048.4
GR1031.1 13078.7  1029.6 13093.9  1029.3 13107.9  1031.3 13116.8  1030.8 13158.5
GR1028.0 13195.5  1028.6 13366.4  1029.6 13556.6  1029.4 13659.0  1030.3 13959.7
GR1030.6 14219.8  1031.3 14232.5  1030.5 14237.0  1030.7 14250.8  1029.1 14263.3
GR1030.4 14606.6  1030.6 14909.8  1032.2 15157.1  1031.1 15164.5  1035.3 15172.3
GR1035.2 15177.3
H    985      10  9327.8 10706.6
X    167      91  9412.5 10272.2    1820    1135 1491.12
X3                          9380    1034 11989.1  1036.3
XL                          9200 11989.1
GR1036.2  7129.0  1037.7  7194.5  1035.7  7205.8  1037.3  7277.2  1037.1  7420.3
GR1039.4  7453.6  1037.1  7485.2  1038.7  7507.3  1037.7  7579.8  1038.3  7590.5
GR1037.3  7594.2  1037.3  7713.7  1036.2  7723.0  1036.4  7888.6  1038.2  7925.2
GR1037.1  7939.2  1035.1  8120.7  1036.1  8128.4  1036.5  8429.0  1035.2  8480.7
GR1037.0  8786.9  1035.9  8921.4  1037.0  8943.4  1036.8  8974.4  1031.8  9018.5
GR1039.2  9040.9  1034.5  9055.3  1033.7  9126.3  1036.7  9148.2  1033.3  9165.5
```

```
GR1033.8  9220.1  1033.4  9233.3  1034.7  9240.3  1038.4  9252.7  1035.6  9256.7
GR1033.3  9272.8  1033.5  9412.5  1030.1  9441.5  1028.9  9508.9  1029.9  9773.1
G    23.3 10025.7  1023.7 10040.0  1025.8 10051.5  1026.7 10190.6  1028.9 10206.1
     18.6 10254.0  1031.0 10272.2  1033.1 10498.3  1032.9 10848.3  1033.0 11148.3
GR1032.2 11453.2  1030.3 11467.7  1032.9 11483.3  1032.3 11523.7  1030.0 11546.4
GR1034.0 11563.1  1032.4 11603.2  1032.6 11807.8  1033.8 11846.8  1032.4 11877.0
GR1034.1 11898.4  1033.1 11953.6  1033.7 11977.0  1036.3 11989.1  1031.3 12008.1
GR1033.4 12031.2  1033.2 12088.4  1031.7 12103.8  1033.5 12114.2  1032.3 12117.7
GR1034.5 12198.3  1033.1 12499.2  1032.6 12530.4  1034.2 12592.6  1032.8 12620.5
GR1032.5 12695.9  1030.5 12748.7  1033.1 12905.5  1030.4 13006.4  1032.1 13048.1
GR1033.2 13355.8  1033.5 13581.8  1034.8 13585.3  1031.2 13629.7  1033.4 13936.1
GR1032.9 14248.3  1033.1 14395.7  1037.8 14406.5  1038.1 14419.7  1033.2 14430.0
GR1033.1 14443.1
HD10.167      10
NC  0.05    0.05   0.045
X110.343      78  9782.1 10288.8     910     695  923.51
X3                          9750    1040   11416    1040
XL                          9750   11416
GR1043.6  5749.1  1044.2  5780.6  1038.7  5851.9  1039.0  6019.2  1039.2  6332.0
GR1039.2  6402.4  1036.8  6515.4  1039.7  6852.7  1039.1  7156.0  1038.6  7398.1
GR1040.0  7472.0  1039.8  7821.6  1039.2  8124.2  1040.1  8426.7  1038.4  8626.1
GR1035.8  8870.7  1039.2  8882.3  1030.0  8906.1  1030.0  9429.5  1031.6  9432.5
GR1033.6  9465.9  1034.3  9531.5  1031.4  9573.0  1031.9  9592.8  1036.7  9615.6
GR1031.8  9659.5  1031.4  9770.7  1032.9  9782.1  1029.4  9854.5  1031.9  9869.3
GR1029.4  9924.3  1030.7 10065.3  1026.7 10247.0  1035.2 10288.8  1036.1 10312.9
GR1035.6 10620.5  1034.8 10841.9  1034.0 10847.5  1034.8 10947.5  1033.8 10988.6
GR1034.1 11072.8  1033.2 11092.4  1035.7 11109.8  1035.9 11151.3  1037.1 11164.0
GR1035.8 11184.6  1036.7 11198.0  1035.1 11214.8  1036.3 11231.4  1034.8 11244.9
GR1035.6 11279.1  1034.4 11296.8  1035.7 11345.3  1033.4 11353.5  1033.1 11388.4
GR1035.0 11390.4  1037.4 11416.6  1035.1 11427.0  1033.9 11612.9  1035.2 11918.3
GR1033.7 12029.0  1035.4 12049.5  1035.0 12282.6  1033.3 12306.7  1034.1 12609.1
GR1035.1 12942.0  1034.8 13067.5  1036.1 13073.7  1034.5 13086.5  1035.2 13108.0
GR1033.0 13133.3  1032.5 13203.6  1034.5 13221.6  1035.3 13542.0  1036.5 13836.8
GR1039.9 13845.1  1040.0 13859.8  1035.3 13871.1
HD10.343      10  8882.3   13500
X110.538      87  9573.5 10478.1     925     985 1033.23
X3                          9514.6    1044   11058    1040
XL                          8600 10478.1
     14.3  5184.9  1041.9  5231.3  1040.7  5346.6  1042.0  5381.6  1039.6  5682.2
     10.9  5982.8  1040.5  6283.3  1041.2  6595.7  1041.2  6884.5  1041.0  7201.5
GR1041.2  7536.3  1043.3  7856.8  1042.5  7964.9  1043.8  7979.7  1040.8  8090.9
GR1038.3  8289.3  1041.4  8383.5  1047.4  8433.6  1045.1  8442.7  1042.2  8474.3
GR1036.6  8494.1  1039.0  8523.1  1039.3  8623.9  1039.5  8689.3  1037.5  8721.0
GR1032.6  8730.1  1032.6  9358.6  1030.7  9369.0  1031.1  9393.1  1032.6  9397.3
GR1034.7  9485.0  1034.7  9515.0  1032.4  9550.4  1035.0  9573.5  1032.3  9735.6
GR1033.1  9803.1  1031.7  9852.9  1033.8  9961.2  1034.1 10074.0  1033.2 10146.3
GR1034.8 10204.0  1032.3 10314.7  1031.2 10415.1  1033.6 10426.6  1035.0 10466.3
GR1037.9 10478.1  1037.0 10517.7  1038.0 10546.0  1036.8 10585.9  1037.3 10707.3
GR1038.3 10796.1  1039.2 10804.0  1036.6 10849.8  1038.0 10898.1  1036.0 10910.1
GR1037.4 10922.0  1039.0 11058.2  1038.2 11357.2  1035.9 11378.0  1036.5 11469.0
GR1035.7 11506.5  1038.3 11558.5  1039.7 11652.5  1041.5 11661.6  1037.8 11677.8
GR1039.3 11777.4  1037.9 11782.6  1039.3 11801.3  1038.9 11978.3  1036.8 12039.8
GR1038.1 12076.2  1037.0 12092.7  1038.3 12115.4  1037.3 12121.4  1037.7 12452.6
GR1037.2 12566.3  1038.0 12577.1  1035.0 12729.0  1036.0 12746.9  1034.0 12773.6
GR1038.3 12884.7  1038.0 13202.7  1037.9 13388.3  1042.7 13400.0  1042.9 13414.2
GR1037.2 13424.5  1036.8 13435.8
HD10.538      10  9573.5 10478.1
X110.752      90  9651.8 10329.8    1070    1140 1124.93
X3                          9335    1042 10329.9    1042
GR1048.3  4553.6  1042.4  4584.0  1043.1  4589.6  1041.1  4596.6  1043.2  4602.7
GR1041.0  4611.6  1043.0  4932.6  1042.0  4953.3  1043.8  5038.2  1043.0  5364.3
GR1043.0  5568.7  1040.6  5581.1  1040.8  5666.5  1043.3  5817.5  1042.3  6064.3
GR1043.7  6114.4  1041.7  6202.8  1041.3  6326.6  1043.9  6339.8  1043.0  6471.4
GR1044.3  6633.7  1043.6  6950.9  1044.4  7078.8  1042.6  7100.9  1044.6  7164.5
GR1043.0  7246.6  1044.8  7272.1  1043.2  7333.1  1043.6  7635.3  1048.5  7656.2
GR1044.1  7668.1  1044.0  7762.8  1047.4  7775.5  1044.2  7789.3  1041.2  8106.8
GR1041.3  8424.9  1040.7  8502.3  1042.7  8522.6  1040.8  8716.0  1042.7  8801.5
GR1040.7  8984.9  1041.3  9206.3  1038.2  9231.8  1038.2  9254.6  1042.6  9273.2
GR1042.7  9292.9  1045.3  9295.8  1047.0  9301.0  1044.9  9309.8  1046.2  9321.9
GR1038.5  9341.6  1038.6  9354.0  1040.3  9360.6  1041.0  9651.8  1038.4  9739.9
GR1037.1  9743.8  1031.3  9930.8  1036.5 10237.9  1033.2 10271.5  1033.7 10296.1
GR1042.8 10329.8  1040.5 10347.4  1042.1 10360.7  1041.9 10521.1  1041.1 10809.6
GR1039.3 10813.4  1041.9 10829.9  1040.2 10882.0  1041.2 10904.0  1039.9 10912.1
GR1040.7 11232.0  1041.0 11281.3  1039.6 11292.4  1041.3 11304.8  1041.8 11416.8
      0.6 11424.2  1041.6 11431.8  1039.4 11582.0  1040.9 11706.0  1039.1 11724.7
C    41.6 11812.4  1038.4 11831.6  1041.1 11983.8  1038.8 12046.3  1040.4 12097.7
GR1036.6 12134.1  1036.8 12148.4  1041.2 12171.6  1039.9 12482.5  1042.7 12661.3
HD10.752      10    9200   10700
X110.846      91  9756.4 10308.2     510     480  500.68
X3                          8865    1044 10402.4    1044
XL                          8200   11000
GR1046.7  4455.3  1042.9  4484.7  1043.7  4812.2  1043.8  5129.0  1043.8  5433.6
GR1044.1  5530.4  1046.4  5558.5  1041.5  5602.2  1045.1  5927.4  1044.9  6130.9
GR1043.3  6192.7  1044.4  6233.7  1043.6  6291.3  1045.2  6592.3  1045.2  6865.7
```

```
GR1043.5  6881.1  1046.0  6943.5  1044.7  7051.7  1046.2  7081.4  1044.9  7091.1
GR1046.9  7101.3  1043.9  7119.5  1046.3  7147.0  1045.8  7462.6  1049.2  7474.5
G   14.0  7487.9  1046.2  7572.9  1048.6  7583.4  1046.3  7599.4  1045.6  7653.5
(    3.4  7674.3  1043.0  7985.4  1041.5  8301.1  1042.5  8319.7  1042.0  8459.6
GR  43.9  8485.0  1042.8  8530.2  1044.1  8547.8  1044.3  8770.3  1042.4  8787.3
GR1042.1  8963.4  1043.0  9125.3  1041.7  9155.7  1042.6  9496.4  1041.8  9621.3
GR1040.7  9636.3  1039.3  9713.9  1039.0  9756.4  1034.8  9829.0  1033.3  9916.9
GR1031.6  9937.5  1035.3 10030.4  1037.4 10223.5  1033.7 10237.0  1033.6 10267.9
GR1038.8 10283.4  1042.9 10308.2  1040.5 10341.8  1042.0 10384.0  1041.2 10394.2
GR1044.4 10402.4  1042.7 10409.7  1044.3 10419.7  1042.4 10496.4  1043.7 10522.5
GR1042.7 10830.5  1043.1 10840.5  1040.9 10848.8  1040.5 10856.7  1043.7 10865.5
GR1042.8 10994.0  1040.8 11003.6  1043.6 11155.2  1042.4 11164.5  1042.9 11173.3
GR1041.7 11176.7  1043.5 11316.2  1042.3 11568.9  1041.2 11574.0  1044.0 11627.0
GR1040.0 11674.8  1040.2 11730.9  1042.9 11769.5  1041.4 11804.3  1038.8 11820.9
GR1038.2 11875.5  1043.1 11899.9  1042.7 11965.1  1043.9 11981.0  1041.9 12286.9
GR1042.2 12373.3
HD10.846      10    7572   12370
   *****************UPSTREAM END OF SAND AND GRAVEL MINES BETWEEN CAMELBACK ******
   *****************AND BETHANY HOME ROAD - PITS DEPTHS BASED ON AREA WEIGHTED****
   *****************PIT DEPTHS AS A FUNCTION OF TOTAL MINING AREA*****************
NC  0.05   0.095   0.045
X111.029      95  9513.1 10404.2    1035     865  963.30
X3                         9240    1046   10467    1046
GR1055.5  3356.7  1053.0  3607.3  1053.9  3617.6  1051.2  3623.8  1050.3  3635.8
GR1051.3  3641.5  1049.4  3661.8  1047.1  3741.2  1046.4  3861.8  1044.0  3889.2
GR1045.3  3899.9  1045.1  4187.0  1046.2  4194.5  1045.9  4514.8  1044.5  4858.6
GR1044.0  4890.1  1046.3  5011.7  1046.5  5170.4  1047.9  5180.1  1045.6  5308.8
GR1047.0  5332.6  1047.1  5634.9  1048.1  5911.6  1047.2  5921.0  1048.0  6085.4
GR1047.2  6101.4  1049.2  6153.3  1050.8  6165.5  1048.2  6173.3  1048.1  6334.7
GR1049.8  6357.8  1048.8  6434.9  1048.0  6707.0  1046.9  6725.3  1048.8  6762.4
GR1048.9  6825.3  1053.4  6836.7  1045.6  6854.7  1045.3  6863.6  1047.4  6874.8
GR1047.9  6903.9  1046.3  6930.1  1053.0  6943.7  1046.6  6962.1  1047.4  7135.8
GR1046.0  7161.8  1045.7  7357.5  1047.9  7387.4  1048.1  7711.8  1048.2  7900.9
GR1046.2  7927.7  1046.5  8279.3  1045.2  8637.4  1043.4  8986.4  1044.2  9100.0
GR1042.4  9115.1  1042.9  9152.3  1045.8  9188.3  1046.5  9353.7  1045.1  9513.1
GR1041.5  9524.5  1042.0  9546.7  1040.2  9557.3  1039.7  9592.4  1035.5  9671.5
GR1036.6  9715.5  1034.7  9802.0  1036.2  9811.0  1040.6  9884.3  1037.7 10099.7
GR1039.2 10225.5  1036.1 10263.7  1036.1 10322.4  1037.2 10344.9  1036.4 10379.6
C    12.3 10404.2  1042.2 10423.3  1043.5 10450.3  1046.4 10467.9  1046.3 10864.9
(     4.9 10971.0  1042.5 11028.3  1043.2 11075.1  1041.2 11108.6  1042.3 11164.9
GR  45.9 11215.0  1045.1 11460.7  1046.9 11477.3  1046.5 11492.9  1043.5 11499.2
GR1045.7 11513.6  1047.7 11765.0  1046.2 11797.1  1047.8 11809.8  1048.6 11874.4
HD11.029      10    8700   10700
          -------GLENDALE AVENUE----------
X111.428      94  9814.2 10227.2    1960    2335    2160
X3    10
XL                         9500 10227.2
GR1053.9  6112.3  1053.8  6146.3  1053.1  6190.4  1052.6  6205.4  1053.1  6261.9
GR1053.5  6420.4  1054.0  6584.1  1053.8  6696.9  1054.0  6739.9  1054.9  6743.7
GR1055.7  6751.3  1056.1  6785.1  1054.7  6802.7  1053.8  6851.1  1053.3  6955.0
GR1053.6  7084.9  1053.3  7307.9  1053.3  7364.2  1053.8  7369.9  1054.2  7435.4
GR1053.4  7516.6  1052.9  7610.6  1054.4  7621.3  1056.7  7630.6  1057.7  7643.1
GR1053.8  7652.2  1052.9  7716.2  1052.6  7792.8  1052.9  7815.9  1052.3  7822.9
GR1054.1  7846.5  1054.2  7872.5  1053.6  7883.0  1053.0  7921.1  1053.9  8007.5
GR1054.0  8166.3  1053.7  8198.4  1054.1  8224.5  1053.9  8254.5  1053.9  8299.6
GR1053.6  8314.2  1054.1  8483.6  1053.9  8536.8  1054.7  8651.9  1055.0  8808.0
GR1055.4  8840.7  1055.5  8882.6  1056.2  8968.2  1056.1  8995.0  1056.7  9025.9
GR1057.0  9076.1  1055.8  9081.4  1057.8  9120.0  1059.0  9222.0  1057.1  9241.3
GR1058.6  9270.3  1059.7  9320.2  1058.2  9361.0  1060.2  9374.9  1061.5  9379.8
GR1062.2  9431.7  1058.7  9446.3  1058.1  9460.4  1061.1  9473.0  1060.3  9587.0
GR1058.2  9587.8  1058.3  9604.0  1058.6  9607.0  1056.6  9613.1  1053.6  9620.2
GR1051.9  9625.0     1050  9632.2     1050  9640.6     1050  9714.2     1050  9725.0
GR  1050  9750.0     1050  9763.8     1050  9786.9     1050  9794.8  1049.8  9814.2
GR1048.4  9820.3  1045.1  9831.8  1044.5  9880.4  1044.2  9937.0  1043.7  9966.4
GR1042.2  9986.0  1042.6 10059.1  1041.8 10166.5  1050.7 10188.8  1056.7 10205.7
GR1057.7 10207.0  1059.3 10210.4  1060.1 10227.2  1060.7 10253.1
HD11.428      10    9500 10227.2
NC  0.15   0.055   0.035     0.3     0.5
    ***************DOWNSTREAM LIMIT OF GLENDALE-1*****************************
    ************************************************************************
X111.557      95  9881.6 10100.9     675     675  677.68
X3                         8970    1058   10122    1058
XL                         9000 10100.9
GR1049.8  5996.1  1049.4  6005.2  1050.0  6052.1  1051.1  6070.8  1057.1  6085.5
C     9.3  6107.5  1050.7  6151.4  1051.3  6203.3  1051.5  6352.2  1051.1  6402.8
(     1.2  6502.5  1050.4  6552.2  1051.6  6710.5  1051.5  6753.3  1050.9  6760.4
GR1051.5  6802.2  1051.7  6971.8  1049.9  6995.6  1050.4  7260.8  1050.8  7302.2
GR1050.1  7352.2  1050.0  7472.8  1049.1  7482.4  1049.0  7502.2  1050.4  7591.0
GR1051.9  7595.5  1052.2  7607.9  1050.4  7618.5  1050.2  7664.5  1051.2  7715.0
GR1051.2  7802.2  1052.4  7855.1  1052.8  7902.2  1052.2  7957.7  1051.8  7962.9
GR1052.4  7973.1  1056.4  7982.2  1023.7  8030.9  1023.9  8118.8  1022.8  8202.2
GR1026.1  8452.2  1026.3  8492.9  1038.0  8514.0  1041.3  8520.6  1044.5  8525.6
GR1051.8  8540.7  1051.9  8602.3  1052.7  8617.6  1046.2  8630.3  1036.0  8651.4
GR1035.2  8702.3  1037.2  8852.3  1037.2  8928.2     1050  8970.0     1050  9126.4
```

```
GR  1050  9259.7    1050  9271.6    1050  9282.5    1050  9301.2    1050  9317.2
GR  1050  9332.6    1050  9347.1    1050  9367.0    1050  9390.9    1050  9410.4
GR    50  9433.5    1050  9440.9    1050  9463.7    1050  9490.9    1050  9521.8
GR     0  9550.3    1050  9585.2    1050  9602.3    1050  9632.9    1050  9701.6
GR  1050  9717.3    1050  9742.1    1050  9774.0    1050  9782.9    1050  9799.3
GR  1050  9845.0    1050  9865.4    1050  9872.3  1051.2  9881.6  1044.5  9900.1
GR1043.9  9927.3  1042.7  9944.6  1041.8  9978.7  1041.7  9995.0  1045.5 10011.0
GR1042.9 10052.3  1043.4 10070.4  1058.9 10100.9  1062.0 10119.6  1062.0 10122.1
HD11.557      10    8000 10100.9
X111.847      95  9914.3 10113.4    1530    1530 1531.67
X3                         7310    1062   10173    1062
XL                       9914.3 10113.4
GR1061.0  5959.4  1023.2  6001.3  1024.8  6150.7  1020.3  6166.8  1020.8  6222.1
GR1020.5  6241.4  1022.6  6391.4  1022.3  6441.4  1023.9  6541.4  1023.0  6666.3
GR1024.4  6841.4  1025.6  7020.0  1025.3  7091.4  1027.0  7172.7  1055.3  7215.7
GR  1056  7373.1    1056  7376.2    1056  7382.1    1056  7557.1    1056  7591.4
GR  1056  7626.5    1056  7656.1    1056  7691.4    1056  7741.4  1057.3  7778.0
GR1056.6  7819.6    1056  7856.7    1056  7874.0    1056  7885.8    1056  7916.5
GR  1056  7938.7    1056  7942.0    1056  7963.4    1056  7982.2  1058.9  7990.0
GR1059.3  7995.7    1056  8032.9    1056  8063.4  1058.2  8084.5  1060.8  8095.1
GR1058.8  8138.1  1058.8  8148.7  1060.5  8161.8  1059.4  8184.6  1057.4  8213.7
GR1057.6  8232.2  1056.1  8245.2  1057.5  8252.7  1057.9  8260.3  1057.6  8270.7
GR  1056  8284.7    1056  8301.9    1056  8333.1    1056  8356.2    1056  8408.0
GR  1056  8592.2    1056  8641.5    1056  8744.8    1056  8791.5    1056  8823.3
GR  1056  8852.4    1056  8880.5    1056  8892.9    1056  8902.5    1056  8917.3
GR  1056  8939.8    1056  8964.7    1056  8993.3    1056  9009.1  1055.5  9091.8
GR1057.3  9243.1  1058.7  9293.9  1059.9  9395.0  1057.4  9591.8  1058.5  9751.4
GR1056.6  9803.6  1056.2  9841.5  1057.1  9897.5  1057.1  9914.3  1055.7  9929.5
GR1048.3  9947.2  1047.8  9950.9  1048.1  9956.8  1047.6  9972.9  1045.0  9986.9
GR1044.6  9996.6  1045.0 10045.8  1046.9 10059.5  1047.3 10080.1  1050.8 10087.3
GR1050.4 10088.2  1050.5 10097.7  1052.1 10113.4  1056.2 10124.4    1066   10173
HD11.847      10    6000 10113.4
X112.042      62  9903.4   10070     990    1050 1028.61
X3                          6350    1066   10165    1066
XL                          5900   10165
GR  1066    5900    1058    5930    1058    6005    1059  6024.1  1059.2  6048.5
GR  1060  6057.8  1058.2  6082.7  1058.2  6096.6  1058.2  6138.2  1058.2  6154.2
GR1058.2  6173.8  1058.2  6190.9  1058.2  6201.8  1058.2  8555.6  1058.2  8631.6
GF    .2  8641.8  1061.8  8660.4  1058.2    8806  1058.2  8910.3  1058.2  8998.8
G     .2  9007.9  1058.2  9078.3  1058.2  9101.9  1058.2  9111.5  1058.2  9145.2
GR1058.2  9148.5  1058.2  9164.4  1058.2  9181.1  1058.2  9201.8  1058.2  9211.2
GR1058.2  9267.4  1058.2  9290.8  1058.2  9298.9  1059.3  9367.2  1062.4  9377.5
GR1062.9  9390.5  1059.5    9402  1058.5  9412.2  1058.2  9418.8  1058.2  9447.6
GR1061.2  9485.4    1061  9536.3  1058.2  9574.9  1058.2    9588  1058.2  9609.8
GR1058.2  9615.8  1058.2  9622.9  1058.2  9667.5  1058.2  9802.1  1058.2  9840.1
GR1058.2  9853.8  1062.1  9867.5  1060.9  9871.4  1061.8  9900.2    1063  9903.4
GR1050.5    9940  1049.3  9955.3  1049.7  9979.1  1048.5  9992.6  1049.8   10044
GR  1062   10070    1068   10165
HD12.042      10    7200   10165
X112.359      73  9691.6 10061.0    1520    1680 1672.99
XL                          7600   10200
GR1072.1  6582.4  1071.7  6589.2  1068.7  6615.2  1063.8  6638.2  1062.9  6640.3
GR1058.8  6683.5  1058.8  6693.3  1058.8  6743.3  1058.8  6784.1  1058.8  6786.4
GR1058.8  6798.0  1058.8  6805.8  1058.8  6856.6  1058.8  6876.8  1058.8  6887.6
GR1058.8  6916.6  1058.8  7003.6  1058.8  7043.4  1058.8  7092.0  1061.7  7133.0
GR1060.7  7161.1  1058.8  7186.6  1058.8  7193.4  1058.8  7243.4  1058.8  7342.0
GR1058.8  8874.6  1058.8  8883.8  1063.7  8902.0  1063.6  8943.6  1062.3  9001.3
GR1060.3  9003.5  1062.7  9011.5  1063.0  9014.6  1058.8  9033.5  1058.8  9047.4
GR1058.8  9057.0  1058.8  9178.7  1058.8  9192.4  1058.8  9203.0  1058.8  9217.6
GR1058.8  9232.5  1058.8  9258.5  1058.8  9260.9  1058.8  9340.5  1058.8  9357.9
GR1058.8  9379.0  1058.8  9416.1  1058.8  9443.7  1058.8  9519.0  1058.8  9540.8
GR1058.8  9563.4  1058.8  9581.8  1058.8  9594.7  1059.0  9613.1  1060.0  9670.0
GR1065.3  9691.6  1062.3  9701.0  1057.6  9724.4  1054.6  9741.9  1052.8  9749.1
GR1052.6  9781.4  1051.7  9793.1  1053.7  9873.9  1056.6  9885.0  1056.9  9922.2
GR1058.5  9932.6  1053.3  9954.7  1053.2 10049.9  1054.7 10061.0  1056.0 10070.1
GR  1066   10095    1068   10250  1070.1 10395.0
HD12.359      10    6700   10200
   ****************UPSTREAM LIMIT OF GLENDALE-1*******************************
   ****************************************************************************
X1 12.42      90  9014.1 10111.3     380     270  302.47
X3                          7000    1066 10782.8    1066
XL                          7950   10200
GR1066.5  6488.3  1067.3  6516.9  1066.9  6538.8  1065.6  6544.1  1065.2  6555.4
GF  1063  6566.1    1063  6635.3    1064  6639.2  1064.4  6677.3  1066.7  6684.3
C     2.8    6700  1064.1  6824.3  1065.4  6940.9  1065.8  7074.3  1065.5  7208.6
G     5.1  7246.4  1061.2  7255.4  1059.8  7299.4  1062.1  7306.5    1062  7326.9
GR  1060  7334.7    1060  7337.3    1060  7452.7    1060  7563.2    1060  7606.2
GR  1060  7611.8    1060  7724.4    1060  7751.7  1061.5  7790.8    1060  7802.3
GR  1060  7889.3    1060    7899    1062  7929.1  1062.3  7952.3    1063  7958.2
GR  1060  7993.2    1060  8021.8  1065.2  8037.7    1060  8056.6    1060  8147.7
GR1063.7    8165  1063.1  8180.5    1060  8205.4    1060  8219.3    1060  8236.9
GR  1060  8289.4    1060  8387.8    1060  8438.5  1062.8  8461.2  1064.7  8478.4
GR1065.5  8502.4  1065.2  8610.1  1065.1  8710.9  1064.7  8824.7    1066  8893.4
GR1066.8  8915.4    1065  8931.2  1065.3  8957.3  1063.9  9002.6  1065.1  9014.1
```

```
GR1063.6  9124.6  1062.8  9159.9  1061.9  9172.6    1061  9175.8  1059.8  9224.7
GR1060.6     9260    1054  9283.3  1056.1  9324.5    1055  9423.2  1055.9  9446.7
G  1055  9553.3  1055.4  9600.5  1054.8  9624.7  1055.6  9731.3  1056.7  9834.5
     7.4  9930.4  1054.5  9953.6  1054.3 10052.7  1065.2 10111.3  1066.3   10121
G  .61.6 10137.4    1063 10155.7  1061.7 10166.7  1065.6 10224.7  1067.9 10342.7
GR1069.3 10405.9    1070 10524.7    1071 10651.2  1071.3 10747.9  1072.1 10782.8
HD 12.42      10    7200   10150
NC  .045    .040    .035     0.1     0.3
    **************DOWNSTREAM LIMT OF NORTHERN -1 ******************************
    *************DID NOT INCLUDE IN SAND AND GRAVEL MODEL AS PROPOSED PIT********
    *************IS OUTSIDE 100-YEAR FLOODPLAIN LIMITS ACCORDING TO LOMR*********
    ****************************************************************************
X1 12.47      89  9382.2 10296.2     230     240     255
X3                        7298.5    1066 11052.3    1066
XL                        9382.2 10296.2
GR1064.5  4763.1  1062.7  4887.7  1063.3  5104.7  1063.3  5320.6  1063.5  5506.2
GR1063.6    5669  1063.7  5828.2  1064.1  5991.4  1064.1  6208.4  1064.2  6360.9
GR1064.7  6513.5    1065  6673.9  1065.1  6727.4  1065.1  7169.1  1064.7  7284.6
GR  1070  7298.5  1066.7  7309.6    1065  7420.7  1065.6    7496    1061  7510.2
GR  1061  7523.9    1061    7653    1061  7733.2  1064.2  7779.6    1064  7830.3
GR  1063  7841.4  1063.8  7920.8  1063.6  8025.7  1060.9    8058    1061  8135.2
GR1063.8  8147.9  1062.7  8155.3  1062.9    8177    1061  8187.9  1061.6  8220.1
GR  1061  8243.8    1061    8256    1061  8437.2    1061  8555.4  1061.5  8588.2
GR1065.1  8611.2  1065.9  8770.9  1066.2  8936.5  1066.3  9022.8  1068.5    9054
GR1066.9    9078  1066.2  9160.8  1067.7  9182.8  1066.7    9241  1065.2    9255
GR1067.1  9268.4    1064  9284.4  1063.2  9312.2    1062  9323.8  1062.3  9332.3
GR1064.2  9344.3    1064  9382.2  1054.9  9402.5  1055.7  9424.8  1056.6  9429.8
GR1062.3  9503.1  1057.5  9517.8  1055.6  9552.9  1063.1  9571.1  1057.9  9589.1
GR1057.7  9655.3    1059  9681.4    1062  9712.2  1062.6  9848.4  1058.3  9882.7
GR1054.9  9899.5  1056.2  9971.8  1055.1 10061.7  1059.4 10091.5    1059 10103.1
GR1062.3 10176.7  1056.2   10192  1057.4 10274.1    1064 10296.2  1065.6 10311.1
GR1065.2 10376.4  1069.1 10395.2  1069.1 10414.7  1068.1 10420.1  1069.3 10571.1
GR1071.1 10771.2  1072.9 10960.5    1074 11033.9  1073.3 11052.3
HD 12.47      10    7500 10296.2
X112.816      94  9781.2 10376.3    1780    1850 1859.04
X3                        8483.3    1068   10488    1068
XL                        9781.2 10376.3
GR1075.1  5376.4  1073.8  5383.0  1073.3  5407.1  1069.7  5426.0  1068.2  5450.3
G   63.2  5475.1  1063.8  5505.8  1063.0  5525.5  1063.8  5574.3  1068.4  5600.9
    38.7  5669.0  1068.1  5684.2  1068.7  5925.6  1068.8  6158.0  1068.9  6375.7
GR1069.0  6575.7  1069.3  6775.7  1069.4  7089.9  1069.3  7128.3  1071.2  7134.7
GR1070.9  7141.6  1069.6  7147.9  1069.7  7160.0  1076.1  7174.5  1072.4  7181.4
GR1070.3  7187.9  1070.5  7204.1  1067.6  7294.7  1069.6  7366.1  1069.0  7425.9
GR1059.2  7505.0  1043.3  7519.3  1044.0  7557.8  1047.1  7574.2  1047.6  7580.6
GR1042.5  7607.2  1043.7  7626.5  1046.7  7845.4  1048.3  7875.9  1047.7  7976.4
GR1048.7  8001.8  1048.6  8034.0  1044.0  8176.0  1042.7  8325.6  1041.6  8348.3
GR1047.3  8362.1  1051.2  8369.7  1050.8  8385.9  1051.5  8406.9  1055.8  8419.1
GR1057.4  8426.0  1063.4  8440.8  1072.0  8474.4  1075.6  8483.3  1070.8  8492.7
GR1070.9  8528.7  1071.6  8531.0  1067.5  8544.5  1067.0  8570.2  1068.4  8582.8
GR1067.0  8591.3  1069.7  8655.9  1069.8  8698.9  1068.4  8714.3  1066.3  8926.1
GR1067.7  9026.1  1068.6  9199.1  1069.7  9276.2  1068.3  9457.4  1071.6  9464.5
GR1078.4  9483.4  1081.3  9496.1  1082.5  9506.6  1081.6  9523.5  1085.0  9568.3
GR1083.9  9577.9  1082.0  9585.3  1080.6  9605.0  1079.2  9666.0  1079.3  9714.8
GR1080.6  9730.0  1081.6  9733.9  1079.3  9751.5  1063.6  9781.2  1057.5  9795.1
GR1057.4  9833.2  1060.7  9976.3  1060.7 10113.1  1061.7 10130.5  1060.7 10176.3
GR1064.1 10376.3  1064.0 10426.4  1064.8 10464.1  1072.3 10488.4
HD12.816      10    7500   10375
   GR POINTS MODIFIED - BOTTOM OF GRAVEL MINE RAISED TO ELIMINATE NON-
   EFFECTIVE FLOW AREA BETWEEN SECTIONS 13.007 TO 13.296.
X113.007      94  9767.1 10186.1    1000    1030 1006.76
X3                         8750    1072   10239    1072
XL                         9150 10186.1
GR1074.1  6020.7  1073.2  6026.4  1073.0  6105.1  1073.0  6158.5  1073.0  6258.1
GR1073.0  6339.2  1073.1  6437.1  1073.1  6511.2  1073.1  6737.2  1073.2  6903.6
GR1073.2  6987.2  1073.2  7099.9  1073.2  7187.3  1072.9  7191.3  1074.4  7200.7
GR1074.2  7208.7  1073.2  7215.8  1073.3  7237.3  1073.3  7296.1  1073.3  7688.9
GR1073.3  7749.3  1073.4  7787.4  1073.2  7839.1  1073.1  7890.1  1072.8  7987.4
GR1072.8  8037.4  1072.8  8087.4  1073.1  8137.4  1073.1  8209.3  1071.8  8231.0
GR1070.5  8239.8  1070.1  8251.0  1071.6  8263.1  1073.4  8286.0  1075.8  8297.9
GR1076.9  8306.4  1077.1  8311.4  1074.6  8319.0  1074.8  8367.4  1072.2  8383.8
GR1072.3  8396.5  1070.5  8428.2  1071.5  8435.7  1072.6  8449.4  1072.5  8452.0
GR1070.7  8466.3  1071.6  8483.7  1072.0  8503.9  1071.7  8513.9  1072.3  8541.8
GR1072.5  8577.6  1072.4  8637.5  1073.3  8704.4  1073.5  8727.4  1074.8  8755.7
GR1074.2  8768.6  1073.1  8779.0  1072.6  8787.6  1071.3  8837.7  1070.1  8849.8
    71.8  8887.6  1073.2  8955.5  1073.6  8987.6  1073.2  9037.6  1071.8  9087.6
    72.2  9094.6  1073.3  9137.6  1072.9  9187.6  1073.3  9210.2  1070.3  9235.2
GR1070.4  9287.7  1070.6  9337.7  1070.6  9405.5  1070.9  9487.7  1071.4  9587.7
GR1071.1  9637.7  1070.9  9688.4  1072.3  9713.5  1072.3  9767.1  1066.3  9792.0
GR1064.8  9823.9  1064.1  9832.2  1063.4  9836.6  1063.0  9887.8  1062.6  9914.5
GR  1062  9937.8    1062  9987.8    1062 10043.2    1062 10087.8    1062 10137.9
GR  1062 10160.9    1062 10186.1  1076.9 10237.7  1076.7 10239.1
HD13.007      10    8800   10186
NC  .045    .045    .035     0.3     0.5
   ***********UPSTREAM LIMIT OF NORTHERN-1*****************************************
```

```
*****************************************************************************
----------UPSTREAM FACE OF OLIVE AVENUE----------
X1  '67      89  8693.6 10286.7  2400.4  2425.4  2429.7
X:    10
GR..0.1  6814.7  1089.3  6829.6  1088.5  6862.5  1087.9  6880.3  1086.6  6944.5
GR1085.6  6980.7  1084.8  7020.5  1083.9    7051  1083.6  7107.9  1082.9  7170.4
GR1082.9  7221.9  1083.5  7345.9  1083.6  7461.7  1083.4  7619.7  1082.9  7695.5
GR1082.9  7781.8  1082.6  7838.7  1083.3  7953.6  1084.4  8056.2  1085.1  8153.8
GR1085.9  8175.2  1085.7  8190.4  1085.8  8226.6  1086.2  8237.2  1087.5    8382
GR  1088    8436  1089.3  8524.4    1090  8586.4  1090.6  8617.3  1090.9  8693.6
GR1090.7  8714.3  1089.7  8721.2    1089  8723.9  1083.7  8748.6  1075.9  8771.6
GR1074.3  8844.3  1072.6  8880.1  1072.1  8900.4  1068.8    8915  1067.8  8921.2
GR1067.7  8960.9    1067  8997.9    1067  9004.9  1068.1  9022.7  1068.6  9039.2
GR1069.3  9080.3  1069.2  9095.9  1070.5  9122.1    1071  9176.2  1070.8  9207.1
GR1071.2  9212.7    1071  9260.5  1071.2  9335.2  1071.7  9473.8  1071.7  9501.1
GR1070.6  9664.3  1070.6  9679.2  1071.3  9719.1  1069.8  9747.5  1069.7  9757.2
GR1070.5  9801.5  1070.3  9808.3  1070.7  9843.8  1071.4    9884  1070.3  9924.4
GR1070.1  9949.1  1069.2    9970  1068.2  9979.4  1065.5  9992.8  1065.5  9999.6
GR1065.1 10002.4  1064.5 10012.7  1064.5 10041.8  1064.1 10056.8  1065.5 10089.1
GR1066.5 10127.4  1066.7 10153.5  1067.9 10157.6  1068.2 10166.2  1069.2 10180.4
GR1069.1 10183.6  1082.4 10223.7  1088.6 10246.1  1090.3   10253  1090.6 10286.7
GR1090.5   10313  1089.4 10369.3  1089.6 10370.6  1090.4 10389.2
HD13.467      10  8693.6 10286.7
NC                     0.1     0.3
X113.952      93  9432.8 10076.3    2525    2585 2566.36
X3    10
GR1090.0  6174.7  1087.4  6221.0  1085.0  6300.2  1084.1  6304.8  1084.5  6323.2
GR1084.2  6340.3  1086.5  6357.6  1084.2  6376.8  1083.8  6479.7  1084.8  6505.0
GR1083.1  6515.2  1085.2  6531.5  1084.4  6610.9  1083.8  6618.1  1084.3  6632.0
GR1082.8  6659.3  1083.0  6675.2  1084.9  6693.0  1085.6  6705.5  1085.9  6770.3
GR1084.5  6780.2  1086.2  6788.5  1087.5  6971.2  1086.1  7001.4  1083.7  7023.8
GR1084.8  7071.2  1083.8  7104.2  1085.3  7133.2  1081.0  7159.3  1086.4  7186.0
GR1086.4  7221.2  1085.4  7302.8  1085.2  7442.2  1086.3  7597.5  1086.3  7696.8
GR1085.7  7771.3  1085.8  7921.3  1085.1  8071.3  1085.1  8128.3  1083.8  8138.4
GR1083.8  8155.0  1084.6  8171.4  1084.1  8236.0  1083.7  8328.1  1085.8  8369.0
GR1087.3  8384.9  1087.2  8432.5  1086.3  8471.4  1085.8  8603.7  1084.8  8622.2
GR1082.3  8642.8  1085.3  8666.1  1087.3  8688.0  1087.5  8721.5  1086.6  8771.5
GR1086.5  8800.8  1087.3  8811.2  1086.7  8827.4  1086.7  8921.5  1086.3  8971.5
G    `7.3  9121.5  1086.6  9135.9  1082.9  9154.2  1082.3  9171.5  1083.0  9321.5
C     3.0  9432.8  1077.1  9472.0  1076.6  9506.3  1078.1  9514.2  1077.9  9581.3
GR..078.4  9631.0  1077.9  9690.8  1081.2  9701.6  1078.6  9717.4  1078.6  9772.8
GR1080.6  9814.5  1079.6  9914.8  1076.7  9931.7  1075.5  9952.9  1073.3 10019.8
GR1076.2 10053.7  1081.4 10076.3  1080.8 10144.3  1081.0 10212.5  1080.1 10271.7
GR1080.2 10320.6  1082.3 10377.6  1085.9 10398.8  1085.6 10456.2  1086.6 10506.3
GR1086.5 10521.7  1088.3 10562.9  1090.1 10583.1
HD13.952      10    7200   10600
X114.430      95  9171.4 10301.1    2175    2625 2523.57
X3                     7800    1093  109841    1093
GR1093.1  6835.1  1092.2  6860.3  1091.7  6910.4  1092.2  6957.4  1091.9  7059.0
GR1092.3  7116.1  1092.3  7152.4  1090.9  7160.9  1090.8  7169.2  1092.8  7174.9
GR1092.5  7260.4  1093.8  7374.4  1092.6  7386.9  1093.8  7410.4  1093.5  7460.4
GR1093.9  7560.4  1093.3  7610.4  1093.7  7668.1  1093.0  7731.7  1093.5  7769.7
GR1094.7  7824.0  1093.7  7871.2  1093.1  7953.2  1093.2  7972.8  1092.9  8030.2
GR1092.3  8062.0  1092.5  8076.9  1090.8  8088.0  1089.8  8098.1  1091.5  8116.9
GR1092.0  8194.9  1091.5  8233.1  1092.1  8266.0  1092.1  8279.7  1088.9  8296.7
GR1087.9  8349.4  1088.0  8356.7  1090.6  8393.8  1090.6  8428.0  1092.7  8449.0
GR1092.3  8510.5  1091.7  8551.5  1089.9  8570.9  1091.7  8660.6  1092.0  8710.6
GR1091.9  8760.6  1091.0  8810.6  1090.8  8860.6  1089.9  8937.3  1089.9  8990.6
GR1089.4  9009.0  1089.1  9040.5  1090.1  9061.5  1091.7  9112.8  1092.1  9171.4
GR1089.0  9184.9  1085.7  9213.3  1086.2  9236.5  1083.2  9251.1  1083.8  9327.2
GR1086.3  9348.5  1085.7  9383.3  1087.2  9425.3  1088.3  9477.5  1088.7  9561.3
GR1088.5  9633.6  1088.1  9691.5  1088.6  9737.7  1088.8  9773.2  1089.2  9789.8
GR1089.6  9843.8  1089.5  9884.1  1088.4  9985.5  1084.9 10126.0  1084.5 10166.4
GR1084.4 10207.6  1084.1 10261.8  1090.1 10301.1  1091.0 10347.0  1088.8 10352.7
GR1090.6 10361.5  1090.4 10414.8  1090.5 10466.9  1090.0 10556.3  1089.5 10568.8
GR1086.2 10593.2  1087.8 10622.9  1088.1 10675.2  1088.9 10720.5  1087.9 10808.1
GR1090.5 10831.2  1091.5 10847.9  1092.2 10912.7  1093.2 10940.6  1093.8 10984.2
HD14.430      10    8800 10301.1
X115.000      93  9346.3 10081.6    2700    3130  3009.7
X3    10
GR1104.8  9175.6  1096.6  9188.0  1095.7  9234.8  1098.2  9245.7  1098.1  9269.8
GR1098.5  9309.1  1098.0  9346.3  1094.9  9360.3  1093.9  9370.2  1092.0  9405.3
GR1093.4  9484.6  1095.2  9558.7  1095.7  9601.6  1095.6  9621.8  1096.0  9660.1
GR1094.7  9835.6  1093.9  9875.1  1091.8  9911.5  1091.4  9946.6  1092.3  9974.0
    90.7  9998.3  1088.8 10005.6  1089.2 10038.0  1089.1 10059.8  1097.0 10081.6
    96.3 10186.6  1095.3 10240.5  1094.7 10362.1  1093.4 10456.6  1093.5 10476.4
GR1094.0 10495.3  1100.0 10526.1  1100.6 10561.4  1101.1 10679.6  1101.4 10895.6
GR1101.2 10958.4  1101.8 11017.3  1101.4 11192.8  1101.3 11274.2  1100.7 11355.6
GR1099.3 11392.9  1098.1 11400.2  1096.6 11405.2  1096.5 11410.1  1097.8 11419.6
GR1098.0 11427.6  1099.3 11434.3  1100.2 11446.3  1100.3 11453.6  1100.0 11457.0
GR1100.2 11466.1  1097.6 11479.7  1097.3 11498.8  1099.1 11540.6  1099.9 11574.4
GR1099.9 11593.7  1101.2 11685.2  1101.1 11736.6  1101.7 11756.7  1101.5 11782.1
GR1102.6 11787.3  1102.1 11802.9  1100.2 11815.5  1100.5 11836.4  1098.5 11890.8
GR1098.1 11942.1  1096.6 11993.5  1098.5 12029.4  1099.0 12044.9  1099.3 12096.3
```

```
GR1100.7 12125.7  1102.8 12147.6  1103.6 12163.7  1103.8 12179.4  1101.5 12212.6
GR1100.5 12250.4  1102.4 12357.6  1102.9 12367.0  1102.9 12400.4  1104.8 12422.9
G[illegible]04.1 12475.6  1103.5 12492.4  1103.6 12504.2  1104.5 12515.0  1105.2 12558.7
    [illegible]4.4 12624.8  1102.9 12637.3  1102.6 12663.8  1104.8 12712.9  1104.1 12745.6
G[illegible]04.2 12758.9  1103.7 12782.7  1104.1 12821.1
HD15.000      10  9346.3   10550
X115.094      93  9336.0 10125.1     495     495  496.49
X3                        9234.4    1102   11152    1102
GR1102.3  9230.9  1100.7  9234.4  1099.6  9253.3  1099.4  9273.1  1101.4  9293.4
GR1098.7  9317.6  1099.1  9336.0  1093.7  9355.8  1092.1  9366.0  1093.0  9426.0
GR1097.1  9590.7  1099.4  9609.4  1099.0  9653.4  1096.8  9670.4  1096.3  9694.4
GR1096.0  9881.3  1095.6  9930.6  1093.7  9945.8  1094.7  9959.7  1091.2  9976.5
GR1091.8 10019.8  1091.3 10056.5  1090.0 10076.6  1089.9 10097.2  1093.0 10112.9
GR1094.7 10125.1  1095.1 10135.1  1094.8 10150.0  1096.1 10160.0  1096.9 10171.4
GR1096.6 10189.8  1097.4 10207.6  1096.2 10234.1  1097.3 10263.0  1097.4 10348.5
GR1097.8 10420.4  1096.0 10524.2  1096.2 10548.3  1099.1 10566.9  1098.0 10582.9
GR1096.7 10640.5  1096.6 10663.0  1099.1 10693.7  1098.7 10706.9  1099.1 10769.4
GR1100.1 10779.4  1100.1 10782.7  1098.1 10796.7  1097.2 10800.0  1096.8 10811.3
GR1095.5 10828.1  1099.2 10841.3  1099.7 10841.7  1098.3 10856.1  1097.2 10861.7
GR1096.4 10911.4  1097.7 10930.8  1100.9 10959.2  1100.7 10987.0  1102.5 11002.3
GR1102.3 11152.4  1101.1 11308.7  1100.6 11317.7  1099.8 11395.4  1100.0 11416.9
GR1098.4 11464.5  1099.1 11568.4  1102.2 11721.5  1103.2 11770.3  1102.9 11927.4
GR1102.6 12022.7  1102.6 12073.5  1099.0 12224.6  1098.4 12273.7  1099.4 12426.5
GR1100.1 12527.4  1100.9 12565.4  1103.1 12583.4  1103.4 12600.3  1102.8 12615.4
GR1104.7 12634.5  1103.3 12708.4  1104.2 12732.9  1104.9 12768.7  1103.0 12777.2
GR1102.2 12792.8  1103.9 12819.1  1100.5 12842.5  1100.6 12850.8  1098.7 12868.4
GR1098.7 13008.3  1100.2 13018.1  1102.3 13066.3
HD15.094      10    9336   10400
NC  .040    .045    .035
X115.374      92  9832.4 10085.5    1650    1260 1478.26
X3                         9822    1106   10770    1106
GR1109.9  9821.4  1108.7  9824.0  1101.3  9832.4  1101.3  9833.3  1099.8  9834.5
GR1095.1  9843.1  1095.6  9879.3  1094.8  9894.1  1094.0  9928.3  1093.8 10008.7
GR1096.2 10025.3  1098.6 10044.5  1101.9 10085.5  1103.7 10130.8  1100.9 10141.2
GR1101.2 10190.2  1101.1 10222.8  1100.0 10232.8  1100.4 10239.1  1100.6 10263.2
GR1101.1 10270.2  1102.0 10295.0  1101.4 10351.6  1103.1 10379.5  1103.6 10390.8
GR1103.1 10399.7  1102.6 10462.4  1100.8 10473.6  1100.6 10504.5  1101.1 10560.8
GR1101.0 10594.4  1104.7 10617.7  1101.7 10628.9  1101.6 10756.7  1102.1 10871.3
    01.8 10976.0  1102.9 11028.1  1102.6 11089.9  1100.6 11101.7  1100.7 11127.9
    01.0 11129.8  1100.9 11177.9  1102.1 11228.6  1101.8 11278.7  1102.1 11328.8
G[illegible]02.9 11370.9  1100.3 11386.4  1103.0 11442.1  1102.9 11446.9  1099.0 11480.4
GR1099.7 11492.2  1101.4 11509.6  1104.0 11532.1  1101.0 11548.0  1101.0 11581.2
GR1103.5 11613.3  1104.1 11633.1  1104.6 11679.6  1104.4 11729.7  1104.3 11830.0
GR1104.7 11930.2  1105.1 12030.4  1105.1 12130.7  1105.8 12230.9  1106.4 12331.1
GR1106.7 12431.4  1107.1 12481.5  1107.2 12586.9  1107.4 12631.8  1106.9 12646.8
GR1107.6 12665.1  1105.3 12712.8  1104.0 12730.7  1104.7 12791.0  1104.2 12832.3
GR1104.6 12916.3  1106.3 12931.1  1107.6 12952.5  1107.7 12961.5  1107.2 12982.6
GR1106.1 13004.6  1106.2 13024.9  1105.7 13035.9  1105.2 13041.7  1105.2 13082.9
GR1104.4 13133.0  1104.2 13183.1  1104.8 13233.2  1105.2 13333.5  1107.1 13385.1
GR1107.3 13394.5  1111.0 13422.7
HD15.374      10  9832.4   11650
NC  .040    .040    .035
            -----------CACTUS ROAD--EL MIRAGE LANDFILL-----
X115.719      91  9885.3 10059.7    1950    1635 1824.01
X3                        9385.2    1111   10150    1111
GR1111.0  9385.2  1102.4  9398.9  1098.3  9405.4  1099.7  9508.2  1099.8  9558.7
GR1100.2  9593.1  1101.5  9631.5  1101.6  9640.0  1106.0  9674.1  1106.8  9713.1
GR1106.8  9755.4  1106.4  9770.7  1105.6  9781.8  1107.9  9798.9  1108.1  9802.8
GR1108.2  9818.3  1107.6  9843.6  1108.7  9852.4  1109.4  9885.3  1106.4  9899.1
GR1105.4  9942.2  1094.1  9965.8  1093.7 10015.7  1098.6 10029.2  1098.8 10039.4
GR1114.5 10059.7  1117.7 10065.0  1119.6 10075.2  1118.7 10102.4  1123.6 10109.0
GR1128.1 10116.8  1128.5 10122.8  1132.0 10150.4  1132.9 10155.3  1133.7 10161.2
GR1126.3 10172.4  1105.8 10205.0  1106.5 10225.8  1106.5 10232.4  1106.7 10237.1
GR1106.7 10249.4  1106.5 10256.5  1105.8 10268.0  1106.1 10274.7  1105.4 10291.1
GR1105.4 10315.9  1104.6 10354.3  1104.2 10382.4  1104.6 10419.6  1104.4 10422.2
GR1109.6 10439.6  1110.1 10467.3  1110.1 10568.3  1110.6 10669.0  1111.3 10769.1
GR1110.6 10858.6  1110.6 10878.9  1111.2 10919.4  1110.7 10964.7  1111.5 11019.5
GR1111.8 11069.6  1110.7 11128.0  1111.0 11170.1  1109.5 11178.2  1104.8 11207.6
GR1105.4 11219.8  1105.5 11230.8  1104.0 11261.0  1103.7 11271.4  1105.0 11297.5
GR1105.2 11318.8  1103.9 11330.4  1104.5 11370.1  1104.3 11412.5  1106.1 11429.7
GR1108.0 11445.6  1108.6 11487.5  1109.3 11520.3  1109.4 11670.6  1109.4 11779.9
GR1109.3 11920.9  1109.5 11971.0  1109.6 12071.2  1109.8 12171.3  1109.7 12321.6
GR1110.1 12348.9  1110.1 12397.0  1109.1 12471.8  1109.1 12572.0  1109.0 12822.3
GR1110.5 12884.5
    .719      10    9390   10055
    .099      92  9804.0 10081.1    2010    2005 2002.13
X3                         9192    1178   10300    1178
XL                         9200   10200
GR1132.1  9191.9  1126.8  9200.4  1111.0  9233.0  1104.9  9259.9  1105.0  9274.3
GR1104.8  9282.4  1106.9  9313.0  1108.3  9366.1  1109.2  9418.0  1109.2  9466.8
GR1110.2  9517.2  1109.5  9549.3  1109.5  9567.6  1108.4  9606.1  1105.8  9624.0
GR1106.1  9629.4  1106.4  9668.4  1106.2  9694.8  1106.5  9705.3  1107.2  9716.8
GR1106.8  9725.8  1106.6  9752.8  1106.8  9768.3  1106.4  9769.3  1105.5  9804.0
GR1102.0  9815.8  1100.9  9929.6  1102.0  9942.0  1101.6 10021.2  1100.8 10043.9
```

```
GR1120.7 10081.1  1121.5 10083.0  1122.9 10120.9  1160.4 10222.8  1176.1 10273.2
GR1177.9 10295.5  1172.6 10323.6  1162.9 10344.4  1159.3 10352.7  1160.0 10368.4
G    6.1 10377.4  1137.3 10424.4  1115.3 10474.8  1112.0 10486.0  1110.0 10491.9
G    7.4 10518.8  1106.8 10547.6  1106.8 10562.5  1108.2 10573.5  1111.5 10624.5
GR1114.6 10670.3  1115.2 10686.0  1115.7 10720.9  1115.7 10798.4  1115.3 10820.9
GR1114.5 10834.1  1113.1 10879.9  1113.3 10936.2  1113.1 10978.8  1111.9 11028.4
GR1109.9 11050.0  1113.4 11069.5  1113.7 11079.3  1115.5 11104.9  1115.1 11109.6
GR1115.2 11134.0  1114.9 11177.8  1115.1 11219.4  1114.8 11370.9  1114.1 11429.1
GR1113.5 11456.5  1111.4 11479.4  1111.7 11481.5  1113.2 11504.1  1113.1 11516.6
GR1112.4 11531.3  1112.5 11549.4  1113.1 11567.8  1113.4 11729.2  1113.2 11911.4
GR1113.5 12079.2  1113.9 12179.2  1114.1 12304.0  1114.4 12329.3  1114.1 12501.3
GR1113.9 12675.5  1114.0 12727.4  1114.2 12746.8  1114.1 12929.3  1114.6 13041.6
GR1115.1 13090.7  1115.1 13122.1
HD16.099      10    9200   10200
NC                    0.3     0.5
X116.482      90  9781.9 10219.8    1980    2160 2026.23
X3                   9750  1127.5   10290  1127.5
XL                   9600   10500
GR1140.7  9305.3  1139.9  9363.5  1139.9  9370.4  1138.7  9446.0  1138.7  9449.5
GR1139.3  9451.2  1138.5  9456.3  1137.2  9528.1  1136.8  9537.1  1137.1  9563.8
GR1136.6  9616.0  1135.9  9622.7  1134.7  9645.4  1133.3  9704.0  1131.9  9731.2
GR1130.9  9750.4  1130.6  9765.2  1126.1  9774.7  1122.1  9781.9  1117.0  9795.4
GR1114.2  9802.5  1111.1  9816.2  1109.7  9859.8  1108.9  9880.3  1108.6  9915.4
GR1107.7  9931.8  1105.6  9947.6  1105.8  9985.2  1108.0 10015.1  1109.8 10086.8
GR1108.8 10140.7  1109.1 10210.9  1117.6 10219.8  1119.6 10222.0  1120.1 10266.0
GR1121.6 10270.4  1126.9 10287.0  1127.5 10289.6  1127.6 10293.3  1127.6 10326.1
GR1127.6 10334.5  1126.1 10443.1  1125.8 10450.5  1125.8 10455.8  1126.2 10510.5
GR1124.9 10570.5  1124.9 10577.4  1124.2 10651.5  1124.5 10662.8  1124.1 10687.3
GR1123.9 10696.8  1123.4 10708.0  1123.0 10739.0  1122.7 10753.8  1122.2 10775.4
GR1121.9 10780.7  1121.5 10782.6  1119.5 10822.5  1119.4 10838.0  1119.6 10875.6
GR1118.8 10994.6  1118.6 11064.6  1118.2 11105.9  1117.3 11151.7  1116.3 11206.3
GR1116.2 11210.6  1117.1 11245.1  1116.8 11253.8  1117.1 11286.7  1118.3 11329.8
GR1118.3 11349.3  1118.5 11378.5  1118.7 11406.2  1119.3 11448.7  1119.7 11562.0
GR1120.2 11569.8  1120.5 11673.4  1120.6 11689.2  1120.7 11754.4  1121.0 11817.9
GR1121.1 11822.8  1122.0 11961.4  1122.4 11986.6  1122.8 12071.0  1123.0 12098.0
GR1123.1 12149.2  1123.1 12151.2  1123.2 12191.5  1124.0 12254.5  1124.0 12264.5
HD16.482      10  9781.9   10220
X116.506      72  9768.0 10245.4     125     125  126.72
X      10
X                    9500   10300
GR1143.1  9053.0  1142.5  9098.2  1142.5  9101.6  1141.4  9219.0  1139.9  9328.3
GR1140.0  9334.9  1139.6  9379.4  1139.0  9386.3  1138.3  9448.3  1138.4  9482.6
GR1138.0  9525.0  1137.9  9526.8  1136.5  9625.1  1135.2  9710.2  1135.3  9731.2
GR1126.2  9750.8  1124.5  9756.7  1122.2  9768.0  1113.9  9802.5  1112.2  9807.7
GR1110.1  9853.7  1109.1  9878.2  1107.6  9903.9  1106.7  9917.3  1105.4  9933.8
GR1105.6  9939.1  1105.9  9960.5  1105.8  9970.9  1106.6  9982.4  1108.1 10007.8
GR1109.2 10031.5  1110.0 10081.1  1110.5 10104.0  1110.0 10129.9  1110.1 10176.4
GR1110.7 10177.1  1113.8 10221.4  1122.4 10245.4  1122.5 10247.4  1123.5 10250.2
GR1128.1 10263.0  1128.4 10265.0  1128.4 10281.1  1128.5 10281.8  1127.8 10351.1
GR1126.6 10446.0  1125.5 10564.8  1124.7 10654.0  1124.1 10726.7  1123.8 10775.9
GR1123.5 10814.3  1123.6 10816.6  1123.3 10856.9  1123.3 10871.9  1123.0 10903.5
GR1122.9 10905.5  1122.6 10987.6  1122.4 11107.4  1122.0 11206.5  1118.3 11230.6
GR1117.6 11244.9  1118.5 11289.8  1118.6 11315.8  1119.5 11330.5  1119.6 11345.0
GR1120.1 11374.6  1120.1 11411.2  1122.2 11426.3  1121.8 11440.2  1121.8 11474.4
GR1121.9 11475.7  1121.8 11575.0
HD16.506      10    9700   10300
    **************DOWNSTREAM END OF GRAND-1***********************************
    ****************************************************************************
NC  0.05    0.05    0.04     0.1     0.3
X116.612      84  9808.2 10161.2     627     342     581
X3                   9793    1124   10286    1124
XL                  9808.2   10300
GR1127.9  9793.5  1112.1  9808.2  1108.8  9916.8  1109.3  9920.2  1109.8  9926.5
GR1108.3  9944.2  1108.7  9949.8  1108.9  9958.7  1110.3  9983.6  1109.9 10016.8
GR1111.6 10034.3  1111.7 10055.6  1112.1 10084.9  1111.7 10105.4  1109.1 10113.2
GR1109.0 10136.8  1115.6 10161.2  1117.3 10167.6  1122.9 10189.9  1122.9 10198.4
GR1123.1 10219.0  1123.9 10236.5  1124.5 10279.3  1124.5 10286.5  1124.1 10293.7
GR1123.5 10310.0  1120.1 10319.6  1117.6 10325.9  1118.3 10331.4  1118.6 10336.5
GR1117.7 10377.7  1117.6 10386.5  1116.6 10426.9  1116.5 10436.5  1116.9 10486.5
GR1116.6 10525.2  1116.5 10536.5  1116.4 10574.4  1116.2 10586.5  1115.6 10623.6
GR1115.7 10636.5  1115.6 10677.3  1122.1 10695.6  1121.1 10702.1  1121.4 10723.8
GR1121.7 10738.6  1121.7 10748.4  1121.8 10788.7  1125.6 10806.5  1125.6 10818.0
GR1121.5 10827.9  1122.7 10837.7  1120.9 10840.1  1121.4 10886.5  1121.6 10918.7
GR1121.7 10936.6  1121.3 10986.6  1121.4 11017.0  1121.0 11036.6  1120.3 11066.2
    19.8 11086.6  1120.5 11115.4  1119.7 11136.6  1119.7 11158.5  1119.2 11186.6
    19.4 11198.8  1118.5 11225.0  1118.2 11247.2  1117.9 11273.5  1118.1 11275.0
GR1118.5 11296.7  1118.3 11304.3  1118.4 11316.1  1118.5 11334.1  1118.7 11352.2
GR1118.5 11355.6  1116.1 11376.8  1117.1 11399.9  1117.9 11407.7  1120.2 11421.8
GR1120.6 11423.7  1122.6 11446.9  1125.2 11472.1  1126.3 11481.4
HD16.612      10   10090   10800
NC  0.05    0.05    0.04     0.1     0.3
X116.990      82  9810.0 10135.4    1990    1985    1993
X3                   9725    1130   10150    1130
XL                   9800   11000
```

```
GR1157.3  9725.4  1157.1  9748.5  1113.3  9810.0  1112.4  9829.0  1115.1  9867.1
GR1112.0  9880.5  1110.9  9928.1  1111.5  9994.8  1115.0 10039.8  1114.4 10097.1
GP   8.5 10108.0  1118.5 10118.8  1121.6 10128.1  1125.6 10135.4  1132.6 10146.3
G     .4 10170.5  1130.8 10182.4  1124.6 10201.0  1122.2 10231.9  1122.1 10282.5
GR...3.2 10329.7  1129.1 10340.5  1124.0 10350.5  1124.0 10382.8  1132.1 10397.2
GR1128.4 10411.7  1126.7 10420.9  1126.1 10573.0  1127.9 10648.2  1127.9 10866.8
GR1128.0 11032.5  1127.6 11073.1  1128.1 11082.5  1127.8 11137.2  1126.8 11609.9
GR1126.7 11843.9  1126.8 11988.7  1129.0 12041.8  1125.8 12048.3  1128.5 12056.1
GR1127.1 12097.2  1127.8 12170.8  1124.8 12180.6  1119.2 12188.4  1116.2 12191.6
GR1111.2 12195.4  1090.6 12206.1  1092.1 12285.4  1093.9 12332.8  1101.0 12334.5
GR1112.0 12337.1  1125.2 12341.0  1125.1 12367.4  1125.8 12393.1  1124.4 12431.4
GR1123.9 12507.9  1123.2 12529.8  1123.6 12585.8  1127.2 12630.0  1136.9 12660.9
GR1128.6 12676.3  1127.0 12692.1  1125.9 12746.2  1127.9 12795.1  1130.4 12813.6
GR1130.5 12826.3  1128.3 12904.8  1129.2 12916.6  1127.6 12934.8  1125.7 12966.4
GR1126.6 12979.5  1125.4 13179.1  1126.4 13287.4  1124.9 13341.6  1125.6 13503.0
GR1125.2 13561.0  1120.4 13574.0  1121.1 13632.4  1128.6 13654.8  1128.6 13664.2
GR1130.6 13675.3  1130.2 13709.1
HD16.990      10    9800   12650
X117.458      92  9370.6 10225.3    3035    1705 2468.67
X3                         8808    1132   10334    1132
XL                         9000   10400
GR1137.5  8689.6  1134.6  8719.5  1138.8  8738.2  1138.3  8746.5  1132.8  8765.0
GR1132.5  8786.3  1136.5  8797.0  1135.7  8812.4  1132.6  8846.8  1146.8  8948.8
GR1137.6  8976.0  1137.4  9003.3  1130.1  9014.1  1126.1  9023.7  1121.7  9049.0
GR1121.4  9062.9  1123.1  9069.1  1123.0  9091.0  1121.4  9095.5  1125.3  9174.2
GR1123.9  9242.4  1126.0  9291.7  1125.2  9300.9  1126.4  9370.6  1119.7  9388.4
GR1118.6  9489.5  1122.0  9525.5  1119.9  9829.2  1120.4  9840.3  1116.5  9847.2
GR1118.6  9925.1  1121.7  9935.7  1119.6  9939.4  1120.4  9962.7  1124.5  9978.6
GR1128.1 10094.0  1125.2 10109.8  1128.1 10171.2  1127.7 10217.9  1129.3 10225.3
GR1125.1 10246.2  1125.2 10254.6  1130.8 10271.4  1128.7 10284.2  1129.0 10345.0
GR1131.8 10357.4  1134.6 10442.8  1133.4 10459.5  1136.5 10467.5  1132.9 10480.5
GR1123.2 10589.7  1119.1 10603.6  1117.6 10659.7  1118.4 10675.0  1113.7 10691.1
GR1113.3 10706.4  1117.4 10722.8  1113.5 10786.6  1110.8 10803.4  1107.4 10929.4
GR1112.4 11229.4  1111.8 11307.7  1095.5 11325.7  1094.8 11383.2  1096.6 11445.3
GR1091.5 11460.7  1091.2 11474.0  1092.6 11478.9  1091.4 11483.8  1092.6 11484.8
GR1095.0 11527.9  1092.8 11590.0  1134.9 11640.7  1147.3 11704.2  1131.9 11737.5
GR1130.9 12038.7  1131.0 12346.0  1131.0 12565.0  1130.1 12892.2  1130.7 13055.7
GR1127.3 13066.0  1127.5 13084.7  1131.6 13098.9  1128.5 13100.4  1126.8 13108.6
G     9.6 13120.3  1131.2 13453.4  1131.0 13777.2  1130.4 14088.7  1129.6 14116.9
G     3.3 14132.7  1133.3 14165.7
HD...458      10    8740   12500
     **************DOWNSTREAM END GREENWAY-1*********************************
     ***********************************************************************
X117.638      89  9774.7 10288.4     955     895  949.45
X3                         8744    1136   10386    1136
XL                         9100 10288.4
GR1139.1  8744.2  1138.7  8811.6  1135.9  8827.7  1135.6  8945.5  1136.7  8959.6
GR1137.0  9056.9  1139.6  9082.2  1137.1  9098.5  1132.9  9176.5  1132.9  9197.8
GR1130.0  9207.3  1130.0  9242.4  1130.0  9258.8  1130.3  9270.5  1130.0  9293.0
GR1130.0  9313.8  1130.0  9348.6  1130.0  9445.5  1130.0  9464.8  1133.5  9483.8
GR1130.0  9498.2  1130.0  9545.3  1130.0  9556.0  1130.0  9566.8  1130.0  9589.7
GR1130.0  9610.2  1130.0  9612.2  1130.0  9695.5  1130.0  9750.6  1130.0  9768.6
GR1130.8  9774.7  1130.0  9798.8  1130.0  9831.0  1130.0  9911.6  1131.0  9927.0
GR1130.0  9938.1  1130.0  9966.8  1131.7  9977.6  1130.0 10002.0  1130.0 10049.6
GR1130.0 10100.5  1132.1 10124.7  1130.1 10136.8  1132.3 10166.7  1133.3 10195.3
GR1133.7 10274.7  1134.6 10288.4  1133.2 10316.0  1134.7 10324.9  1136.3 10359.3
GR1135.6 10373.5  1139.6 10386.4  1134.4 10413.9  1126.8 10420.6  1111.3 10442.5
GR1110.6 10451.1  1108.6 10458.0  1106.8 10460.6  1107.9 10551.4  1110.5 10612.2
GR1108.3 10646.4  1107.1 10711.3  1107.3 10794.1  1106.4 10810.0  1108.4 11000.6
GR1123.6 11024.4  1136.5 11040.6  1134.4 11063.6  1138.3 11074.3  1132.3 11096.7
GR1133.8 11110.6  1133.4 11218.3  1134.9 11254.8  1134.2 11502.9  1134.1 11714.3
GR1133.7 11962.3  1134.9 12189.4  1135.0 12393.4  1135.0 12643.3  1134.4 12877.2
GR1134.2 13094.3  1134.1 13099.2  1129.9 13109.2  1130.4 13128.3  1133.2 13138.4
GR1131.3 13142.8  1132.2 13161.0  1134.1 13405.8  1135.7 13615.4
HD17.638      10    8800   12580
NC 0.045    0.05   0.035
X117.821      92  9764.8 10227.7     950     970  964.24
X3                         8350    1140   10270    1140
XL                         8600 10227.7
GR1142.2  8181.7  1138.9  8323.3  1139.0  8357.4  1140.1  8379.7  1138.9  8433.5
GR1133.6  8448.4  1133.8  8481.3  1138.1  8495.5  1139.6  8524.0  1139.8  8553.7
GR  1137  8680.0    1137  8706.9    1137  8728.5    1137  8806.5    1137  8864.8
GR  1137  8885.8    1137  8935.3    1137  8954.3    1137  8999.6    1137  9015.8
GP  1137  9029.4    1137  9041.5    1137  9061.5    1137  9075.0    1137  9101.1
(     137  9121.6    1137  9152.6    1137  9190.6    1137  9205.7    1137  9239.3
(     137  9292.3    1137  9302.1    1137  9314.9    1137  9374.8    1137  9394.9
GR  1137  9478.4    1137  9520.7    1137  9615.2    1137  9666.0    1137  9703.0
GR  1137  9750.4    1137  9764.8  1130.0  9788.3  1130.0  9908.4  1133.2  9922.3
GR1130.0  9938.1  1130.0 10013.2  1130.0 10026.1  1130.0 10055.6  1130.0 10120.9
GR1130.9 10131.5  1131.9 10156.1  1136.0 10173.4  1137.0 10180.8  1130.4 10207.4
GR1138.7 10227.7  1137.2 10236.0  1136.3 10321.5  1134.1 10334.8  1133.3 10358.4
GR1132.5 10362.9  1132.2 10403.1  1133.6 10425.1  1133.8 10683.3  1133.9 10747.7
GR1132.3 10790.0  1138.8 10814.3  1137.7 10865.9  1137.8 11062.6  1148.0 11086.7
GR1138.6 11108.9  1138.1 11397.3  1138.1 11667.3  1138.6 11927.3  1138.9 12352.4
```

```
GR1138.2 12639.4  1137.5 12965.5  1137.1 13225.2  1137.0 13271.7  1134.3 13279.9
GR1134.1 13307.6  1137.0 13316.7  1135.6 13320.9  1136.5 13346.2  1138.0 13614.0
GR[illegible].1 13886.5  1140.1 14151.7  1139.5 14364.5  1142.8 14390.0  1143.4 14431.5
GF     .2 14445.9  1146.2 14449.6
HD_   .21      10     8170   11800
   *************UPSTREAM END OF GRAND-1*****************************************
   ***********************************************************************
X118.275      93  9752.1 10210.5    2170    2440 2398.82
X3                          8750    1144   10715    1144
XL                        9752.1   10650
GR1143.5  8008.5  1138.7  8023.5  1140.7  8037.9  1138.5  8046.9  1138.0  8261.2
GR1137.8  8312.7  1136.6  8325.4  1137.3  8372.6  1137.4  8512.4  1139.6  8516.3
GR1139.8  8520.2  1138.5  8524.5  1139.6  8555.1  1140.4  8562.2  1137.8  8568.8
GR1138.0  8602.0  1142.3  8636.5  1143.8  8662.1  1149.7  8694.9  1150.4  8704.1
GR1148.8  8717.2  1149.0  8724.0  1151.0  8737.9  1149.3  8749.1    1142  8787.2
GR  1142  8803.8    1142  8809.4    1142  8848.8    1142  8871.5    1142  8880.5
GR  1142  8891.0    1142  8999.9    1142  9010.1    1142  9015.7    1142  9188.4
GR  1142  9235.9    1142  9293.2    1142  9329.0    1142  9407.9    1142  9476.4
GR  1142  9483.7    1142  9502.0    1142  9506.1    1142  9515.3  1142.6  9521.5
GR1139.8  9534.5  1139.3  9579.9  1140.1  9637.4  1141.2  9662.8  1141.7  9699.4
GR1139.5  9752.1  1130.1  9787.5  1134.1  9819.9  1134.1  9834.1  1138.9  9863.8
GR1137.4  9948.0  1135.1  9965.1  1134.3 10061.6  1136.5 10084.7  1137.3 10108.8
GR1136.1 10140.2  1138.4 10151.1  1140.1 10210.5  1139.6 10414.7  1138.8 10516.9
GR1137.7 10554.5  1137.1 10611.8  1137.6 10622.8  1139.7 10635.4  1140.1 10643.9
GR1146.7 10661.8  1146.0 10695.0  1143.3 10731.8  1144.1 10758.2  1146.7 10782.6
GR1146.7 10889.1  1146.2 10898.5  1146.9 10915.6  1145.4 10956.8  1145.8 10994.8
GR1143.8 11004.1  1142.2 11023.1  1144.1 11057.2  1143.6 11063.0  1146.8 11096.6
GR1146.3 11118.3  1147.3 11366.8  1148.0 11580.8  1148.3 11795.4  1148.6 11993.8
GR1149.5 12044.0  1149.4 12073.0  1149.4 13000.0
HD18.275      10     8010   12900
X118.839      92  9787.8 10337.0    2635    3185 2882.75
X3                          9250    1156   10375    1156
XL                          9300   10350
GR1159.3  8035.3  1160.1  8038.6  1154.0  8081.5  1152.0  8142.0  1151.8  8165.7
GR1145.2  8172.5  1142.4  8175.7  1135.6  8182.7  1126.5  8192.5  1119.8  8199.1
GR1119.8  8265.6  1136.1  8284.0  1141.6  8289.5  1151.1  8298.1  1150.6  8339.2
GR1152.4  8343.3  1147.4  8393.6  1149.7  8415.2  1150.8  8439.6  1151.2  8443.4
GR1149.9  8483.6  1144.3  8492.4  1143.1  8504.6  1142.9  8518.4  1143.5  8526.7
GP  [illegible]3.5  8539.0  1141.4  8542.8  1138.4  8549.1  1139.2  8560.7  1139.1  8569.3
G     [illegible].3  8578.2  1146.8  8592.3  1149.9  8594.8  1150.7  8597.1  1150.7  8600.4
Gk_ [illegible]8.7  8619.6  1148.7  8627.7  1149.8  8634.1  1151.3  8649.9  1151.6  8695.7
GR1150.9  8746.0  1150.6  8796.3  1149.1  8837.3  1149.4  8854.9  1151.4  8869.2
GR1152.3  8960.5  1152.0  8966.7  1148.3  9004.8  1150.0  9017.9  1151.0  9023.1
GR1147.6  9041.7  1147.0  9087.8  1149.7  9104.9  1149.5  9108.5  1149.7  9149.0
GR1150.7  9199.0  1151.4  9285.5  1151.8  9359.0  1154.0  9367.0  1154.7  9374.4
GR1151.2  9388.1  1151.3  9420.2  1150.0  9435.1  1149.5  9446.3  1151.6  9476.4
GR1150.9  9511.1  1150.8  9556.2  1151.8  9665.4  1152.1  9705.2  1152.8  9716.6
GR1148.6  9747.1  1147.5  9774.5  1149.2  9787.8  1147.8  9825.0  1145.3  9845.2
GR1145.1  9901.6  1147.0  9913.2  1146.0  9962.2  1145.0 10056.4  1144.6 10160.9
GR1145.3 10164.0  1146.7 10168.0  1146.8 10189.4  1146.1 10196.0  1145.1 10199.7
GR1144.9 10310.7  1146.1 10321.9  1147.1 10325.1  1147.5 10331.4  1150.1 10337.0
GR1152.2 10340.5  1159.1 10354.4
HD18.839      10     8150   10350
    ****************UPSTREAM END OF GREENWAY-1*******************************
    ***********************************************************************
NC                          0.3     0.5
              --------------BELL ROAD-----------
X118.962      74     9840 10223.7     540     700  644.97
X3                          9391    1156   10535    1156
GR1162.0  7916.7  1162.2  7934.1  1162.0  7947.4  1162.3  7963.7  1162.3  8037.4
GR1162.5  8045.6  1162.1  8054.3  1162.2  8112.7  1162.3  8118.1  1162.7  8160.7
GR1162.6  8162.2  1162.8  8185.1  1163.0  8206.7  1163.0  8235.2  1163.4  8289.8
GR1163.4  8330.1  1163.8  8411.9  1163.8  8427.7  1163.5  8463.4  1156.6  8465.2
GR1147.5  8466.9  1147.8  8479.5  1147.5  8495.9  1158.1  8497.9  1163.6  8500.4
GR1163.5  8506.8  1163.7  8550.6  1163.7  8564.1  1163.4  8612.3  1163.2  8634.6
GR1163.1  8674.2  1162.7  8708.9  1163.1  8730.2  1162.7    8753  1162.3  8791.3
GR1162.1  8805.5  1162.3  8856.6  1162.1  8905.9  1161.9  8938.3  1162.0  8955.7
GR1162.2  8966.6  1162.3  9034.1  1162.0  9067.5  1162.5  9102.2  1162.6  9121.3
GR1162.9  9141.9  1165.0  9241.5  1165.6  9276.3  1165.9  9301.3  1165.8  9317.4
GR1165.8  9320.2  1168.2  9391.2  1160.1  9405.6  1149.0    9435  1150.4    9840
GR1147.3  9848.8  1147.4  9882.3  1149.1    9948  1148.1 10060.6  1149.8   10071
GR1150.1 10072.1  1149.1 10223.7  1148.5 10226.4  1146.2 10251.3  1146.8 10260.2
GR1148.4 10281.3  1148.5 10286.7  1147.0 10415.8  1148.2 10465.7  1170.7 10522.1
GR1170.9 10523.2  1170.1 10524.3  1169.5 10531.5  1169.5 10535.6
F    962      10     9440   10480
I    045    .045     .035
X1[illegible].066      93  9885.7 10349.1     485     580  551.29
X3    10
GR1163.5  8083.9  1164.7  8087.8  1162.4  8094.0  1156.1  8106.9  1156.7  8154.1
GR1156.9  8196.9  1157.7  8246.2  1158.0  8347.1  1159.1  8361.4  1159.7  8398.1
GR1161.6  8466.8  1162.4  8504.6  1162.6  8548.1  1163.1  8598.3  1162.9  8698.6
GR1163.1  8799.0  1162.5  8899.3  1161.5  9007.9  1159.8  9077.7  1159.1  9094.7
GR1159.3  9118.3  1159.0  9128.2  1156.9  9150.2  1153.4  9222.0  1153.9  9233.7
GR1157.2  9242.5  1163.1  9259.9  1165.5  9268.0  1167.6  9277.0  1166.7  9289.7
```

```
GR1166.5  9297.0  1167.0  9302.8  1166.8  9310.8  1167.3  9320.5  1160.4  9342.3
GR1157.9  9349.5  1154.8  9366.9  1151.2  9379.2  1150.8  9401.6  1150.6  9451.2
GR[illegible]51.3  9476.5  1153.8  9520.5  1152.9  9546.9  1152.3  9554.2  1152.0  9579.5
G[illegible]2.2  9649.0  1153.4  9673.0  1153.7  9700.5  1153.2  9744.0  1153.5  9777.6
G[illegible]4.7  9817.4  1154.3  9830.0  1155.5  9870.1  1155.0  9885.7  1149.8  9901.2
GR1150.3  9953.8  1150.8  9978.4  1150.6  9989.3  1151.4 10002.8  1151.6 10058.7
GR1151.3 10080.0  1149.7 10105.8  1149.9 10115.9  1151.6 10129.9  1151.5 10161.9
GR1150.7 10188.8  1150.6 10203.9  1150.8 10206.7  1151.3 10246.3  1149.4 10261.9
GR1151.5 10282.4  1149.8 10327.8  1154.3 10349.1  1154.6 10379.5  1155.9 10398.0
GR1156.1 10456.1  1154.5 10497.0  1154.0 10504.9  1153.0 10536.3  1152.0 10555.2
GR1152.2 10557.5  1149.4 10595.4  1149.5 10626.8  1152.2 10633.3  1154.3 10637.1
GR1151.6 10657.6  1150.2 10684.7  1153.5 10704.5  1156.5 10711.0  1168.4 10729.4
GR1168.3 10747.9  1169.2 10755.7  1169.4 10778.8
HD19.066      10  9302.8   10398
NC 0.045   0.045   0.035     0.1     0.3
X119.446      91  9592.8 10078.6    1840    2400 2473.39
X3    10
GR1169.9  8715.4  1169.9  8718.3  1171.0  8722.0  1169.3  8727.7  1164.2  8740.0
GR1163.7  8777.7  1164.7  8830.3  1165.4  8878.7  1164.8  8894.2  1159.3  8920.9
GR1159.0  8926.5  1159.4  8963.4  1159.6  8989.2  1160.9  9002.5  1161.2  9027.9
GR1162.1  9078.0  1162.2  9117.5  1162.2  9157.2  1160.1  9174.8  1159.7  9206.1
GR1161.0  9215.2  1160.7  9244.8  1160.8  9258.0  1161.2  9278.1  1161.2  9328.2
GR1161.1  9378.2  1160.9  9407.9  1161.7  9419.9  1160.6  9446.9  1160.0  9482.0
GR1160.5  9527.6  1161.3  9539.0  1162.7  9566.6  1162.8  9571.4  1161.1  9578.3
GR1160.3  9587.4  1159.0  9592.8  1155.9  9603.1  1156.0  9643.3  1156.2  9691.2
GR1157.5  9712.8  1158.0  9725.2  1157.8  9765.9  1157.9  9790.0  1158.4  9878.6
GR1158.7  9911.1  1159.4  9930.4  1158.7  9978.7  1159.4 10028.7  1159.0 10056.2
GR1162.8 10078.6  1163.7 10128.8  1164.2 10178.9  1164.0 10222.3  1163.9 10228.9
GR1163.8 10279.0  1163.8 10318.4  1163.8 10329.0  1163.3 10356.3  1161.4 10383.8
GR1163.0 10429.1  1162.8 10479.2  1162.5 10529.2  1163.1 10579.3  1163.2 10629.3
GR1163.6 10702.6  1163.1 10750.7  1163.2 10829.5  1163.3 10879.5  1163.0 10915.1
GR1162.7 10959.3  1162.4 10982.8  1159.7 11003.4  1159.3 11029.6  1159.3 11036.6
GR1159.7 11075.7  1159.2 11115.4  1156.7 11130.8  1156.9 11158.2  1159.1 11173.3
GR1159.4 11179.5  1158.2 11202.1  1157.6 11233.6  1157.2 11242.5  1157.9 11279.9
GR1157.7 11282.7  1155.7 11323.5  1157.1 11328.7  1175.6 11349.4  1179.6 11355.8
GR1180.1 11361.8
HD19.446      10  9174.8 10915.1
         ---------UNION HILLS--------
[illegible].920      92  9744.6 10129.1    2510    2450 2499.03
      10
G[illegible]178.8  8936.2  1171.6  8955.1  1171.3  8971.0  1171.5  8979.1  1170.6  9010.6
GR1166.2  9025.5  1165.5  9076.6  1165.2  9081.9  1164.0  9087.0  1164.6  9106.2
GR1165.7  9113.5  1166.0  9136.5  1167.7  9149.8  1167.2  9187.5  1169.4  9202.4
GR1169.9  9229.1  1169.5  9379.1  1170.5  9429.1  1170.2  9479.1  1170.7  9529.1
GR1170.3  9615.1  1169.1  9744.6  1164.4  9765.4  1164.0  9770.7  1164.4  9779.1
GR1166.0  9979.1  1166.0  9992.3  1168.1 10020.8  1168.4 10037.3  1168.1 10100.3
GR1168.3 10129.1  1167.2 10203.9  1169.4 10261.7  1171.0 10283.1  1169.9 10298.8
GR1169.5 10326.3  1168.8 10347.5  1169.2 10396.8  1167.9 10408.8  1166.6 10448.3
GR1166.5 10520.7  1168.2 10582.4  1168.0 10634.0  1167.0 10669.2  1167.2 10680.6
GR1165.8 10699.5  1167.0 10718.9  1167.8 10722.3  1165.2 10737.5  1166.9 10752.3
GR1166.4 10766.8  1164.3 10783.8  1164.0 10789.8  1165.0 10802.0  1165.1 10823.2
GR1163.8 10843.8  1164.3 10871.0  1163.9 10886.4  1163.1 10895.5  1162.6 10925.7
GR1163.9 10934.7  1164.0 10946.7  1165.5 10956.8  1168.4 10991.5  1166.2 11000.3
GR1164.6 11008.2  1163.7 11016.1  1165.2 11030.7  1165.2 11074.7  1166.8 11106.6
GR1172.2 11130.2  1172.1 11229.1  1171.1 11429.1  1171.0 11579.1  1170.6 11642.1
GR1166.0 11658.7  1167.9 11676.5  1168.3 11683.2  1167.3 11706.3  1167.8 11716.6
GR1168.9 11723.1  1168.6 11738.0  1167.8 11743.5  1168.4 11755.8  1169.8 11771.2
GR1171.2 11779.0  1172.8 11784.1  1172.7 11786.2  1176.5 11794.7  1177.7 11801.3
GR1187.7 11829.2  1188.1 11831.7
HD19.920      10  9744.6 11130.2
X120.579      90  9825.6 10324.2    3420    3400 3482.23
X3    10
GR1187.1  8154.9  1187.7  8167.0  1186.3  8171.3  1181.5  8181.2  1180.5  8183.9
GR1181.5  8211.3  1182.1  8225.6  1180.3  8267.5  1180.0  8285.3  1180.1  8291.4
GR1181.6  8304.5  1180.1  8325.6  1180.2  8333.6  1181.1  8375.6  1180.9  8475.6
GR1180.8  8525.6  1180.8  8533.2  1180.7  8575.6  1180.6  8616.2  1180.7  8639.9
GR1179.3  8655.2  1180.4  8665.9  1180.7  8676.6  1180.9  8725.6  1181.0  8732.8
GR1181.0  8775.6  1180.9  8782.8  1180.8  8825.6  1181.2  8868.7  1181.2  8882.5
GR1180.2  8925.6  1179.0  8975.6  1178.6  8985.4  1180.8  9024.9  1181.1  9067.4
GR1181.2  9082.0  1182.2  9125.3  1182.1  9132.1  1180.2  9175.6  1179.4  9207.4
GR1179.4  9223.9  1179.0  9275.6  1178.1  9306.4  1177.8  9314.2  1178.8  9325.0
GR1179.0  9331.8  1178.4  9366.8  1178.6  9375.6  1178.1  9387.0  1178.3  9409.4
GR1178.2  9419.5  1178.3  9425.2  1177.9  9429.4  1176.8  9470.7  1177.2  9504.7
GR1179.5  9516.6  1180.9  9522.3  1181.2  9526.6  1181.0  9570.8  1181.3  9593.3
   [illegible]81.6  9605.0  1181.1  9633.2  1180.5  9675.1  1180.8  9698.9  1180.9  9705.1
   [illegible]79.3  9722.0  1179.4  9728.3  1178.3  9740.1  1177.1  9774.3  1178.1  9796.9
G[illegible]178.8  9823.3  1179.0  9825.6  1177.7  9860.0  1176.0  9920.5  1175.8  9925.6
GR1175.8  9930.5  1176.0  9975.6  1174.7 10003.0  1174.8 10030.3  1175.0 10078.6
GR1174.6 10130.3  1174.1 10161.8  1172.7 10174.0  1172.6 10202.0  1172.4 10229.9
GR1171.9 10275.6  1172.4 10309.2  1176.7 10322.2  1177.8 10324.2  1194.8 10345.6
HD20.579      10  9705.1 10324.2
   ****************DOWNSTREAM END OF BEARDSLEY-1*****************************
   ***********************************************************************
X120.958      90  9787.3 10383.8    1815    2044 2006.06
```

```
X3                          8780    1188   10760    1188
XL                          9250   10750
GR[illegible]8.2  8125.7  1182.5  8139.8  1182.5  8144.8  1181.8  8169.4  1178.3  8186.1
G[illegible].6  8194.6  1171.4  8234.1  1170.3  8245.5  1169.9  8289.9  1170.3  8302.9
GR[illegible]3.6  8350.6  1178.9  8364.3  1180.0  8398.1  1180.3  8401.0  1181.7  8450.2
GR1182.2  8482.2  1186.0  8500.0  1185.8  8522.0  1185.9  8550.7  1187.0  8601.5
GR1187.1  8619.9  1186.5  8666.9  1186.0  8727.2  1185.5  8758.0  1188.4  8768.6
GR1190.7  8779.0  1190.0  8792.4  1188.7  8797.4  1187.1  8806.2  1185.4  8840.8
GR1184.5  8854.0  1183.3  8880.1  1182.2  8898.2  1181.9  8914.9  1181.9  8958.1
GR1182.8  9008.4  1182.7  9012.1  1182.5  9059.2  1182.5  9073.3  1182.2  9129.6
GR1182.4  9137.1  1184.0  9146.5  1185.8  9160.2  1185.7  9165.1  1185.9  9206.8
GR1186.6  9262.7  1186.0  9306.7  1186.3  9348.8  1186.5  9364.4  1186.5  9413.0
GR1185.2  9429.8  1185.6  9446.7  1187.5  9458.7  1187.4  9462.9  1187.8  9482.2
GR1187.8  9489.3  1185.8  9500.6  1186.7  9505.2  1187.2  9516.8  1186.7  9567.8
GR1186.5  9606.1  1186.4  9649.0  1186.1  9693.3  1186.0  9707.0  1186.1  9716.3
GR1186.0  9754.4  1182.9  9766.6  1183.3  9775.2  1183.3  9787.3  1182.8  9819.2
GR1182.8  9830.2  1178.3  9844.3  1179.2  9873.0  1178.5  9923.9  1178.9  9977.2
GR1180.5  9987.5  1180.5 10018.6  1180.3 10034.9  1180.5 10076.4  1180.9 10127.3
GR1180.9 10135.8  1180.7 10177.0  1179.8 10229.0  1178.5 10262.0  1177.5 10292.1
GR1176.6 10363.7  1181.5 10383.8  1185.0 10392.4  1185.0 10742.4  1194.0 10760.0
HD20.958       10    8600   10750
          -----------BEARDSLEY----------
X121.061       91  9850.0 10325.4     340     655  542.53
X3                          9200    1188   11045    1188
XL                          9200   11000
GR1192.3  8187.5  1193.6  8199.8  1189.5  8209.0  1183.9  8222.8  1181.3  8275.7
GR1180.7  8281.3  1176.2  8309.6  1172.9  8328.7  1170.6  8354.0  1169.6  8374.3
GR1170.2  8419.5  1173.2  8441.0  1178.8  8476.8  1179.2  8546.0  1181.2  8600.3
GR1182.7  8641.1  1183.9  8654.5  1184.0  8682.4  1183.3  8698.6  1186.2  8709.3
GR1184.9  8751.7  1184.6  8793.6  1184.6  8825.8  1183.8  8864.9  1181.9  8896.9
GR1181.2  8905.0  1182.6  8920.7  1181.9  8936.5  1184.6  8966.0  1186.2  9012.8
GR1186.5  9066.3  1186.8  9089.3  1186.6  9135.6  1187.9  9174.9  1187.5  9248.1
GR1187.1  9253.5  1186.3  9257.6  1188.6  9298.0  1188.2  9312.4  1188.6  9375.9
GR1188.2  9464.9  1188.1  9524.0  1187.6  9578.3  1187.4  9633.7  1187.6  9687.0
GR1187.0  9708.5  1187.3  9759.1  1188.0  9819.5  1186.6  9833.7  1184.5  9850.0
GR1180.3  9895.6  1178.2  9905.8  1176.5  9918.9  1177.1  9938.7  1178.4  9958.7
GR1177.4 10008.7  1177.7 10013.0  1177.6 10034.7  1179.6 10051.0  1180.8 10057.9
GR1180.9 10075.4  1180.8 10114.7  1180.4 10128.6  1177.3 10169.8  1179.1 10230.4
G[illegible]79.5 10284.2  1179.6 10293.5  1183.4 10312.3  1186.3 10325.4  1185.8 10390.7
([illegible]5.5 10447.7  1184.9 10502.0  1183.2 10563.5  1184.4 10574.9  1186.2 10597.2
G[illegible]85.0 10613.0  1186.9 10632.0  1186.2 10655.8  1186.2 10687.3  1184.2 10703.6
GR1186.2 10721.5  1187.1 10781.1  1186.9 10862.9  1186.7 10908.8  1186.4 10926.9
GR1186.7 10936.8  1187.1 10987.6  1186.1 11012.0  1185.1 11025.4  1187.9 11045.4
GR1201.2 11069.0
HD21.061       10    8800   10100
NC  .055     .055     .050
X121.157       94  9377.3 10376.3     340     630  509.07
X3                          9266.8    1190   11150    1190
XL                          9300   10800
GR1196.0  8182.2  1196.1  8184.4  1192.4  8197.1  1193.5  8208.0  1190.1  8223.3
GR1192.3  8246.0  1191.3  8258.3  1191.4  8264.6  1185.1  8308.7  1183.7  8336.5
GR1178.7  8387.1  1178.6  8397.0  1176.3  8432.1  1178.3  8441.8  1178.4  8451.5
GR1174.2  8500.1  1177.8  8540.9  1176.3  8561.5  1178.2  8580.0  1178.9  8639.9
GR1178.2  8716.7  1179.2  8747.3  1183.6  8782.5  1186.2  8836.0  1186.5  8874.3
GR1190.0  8897.8  1188.6  8906.8  1183.1  8932.9  1180.4  8972.1  1185.7  8984.7
GR1186.8  9024.0  1187.7  9034.5  1188.7  9146.7  1188.2  9196.4  1192.8  9211.2
GR1190.5  9217.8  1188.1  9230.5  1188.8  9257.6  1192.1  9266.8  1189.1  9277.5
GR1189.4  9367.8  1185.9  9377.3  1182.5  9384.7  1181.9  9399.5  1182.3  9456.5
GR1182.5  9511.2  1184.9  9522.6  1180.2  9540.1  1180.6  9541.0  1177.1  9550.4
GR1176.6  9577.6  1178.1  9602.3  1183.1  9638.6  1183.9  9649.3  1183.1  9683.8
GR1184.0  9765.7  1183.5  9878.7  1182.8  9910.1  1182.8  9964.5  1184.0 10008.6
GR1182.8 10105.5  1181.2 10118.2  1179.8 10219.2  1180.3 10232.0  1181.5 10240.1
GR1180.0 10253.7  1178.3 10263.7  1179.9 10279.0  1181.6 10309.5  1181.9 10376.3
GR1182.8 10398.0  1180.6 10404.6  1181.2 10411.2  1189.3 10440.4  1192.8 10455.2
GR1190.9 10477.1  1189.6 10532.3  1189.2 10587.0  1187.0 10615.5  1188.7 10633.4
GR1187.8 10655.0  1189.5 10676.2  1189.4 10771.4  1187.0 10831.3  1189.3 10874.0
GR1189.6 10891.0  1189.2 10950.8  1189.8 10981.9  1189.6 11039.8  1190.2 11134.4
GR1189.9 11240.1  1188.9 11348.5  1189.6 11427.1  1197.9 11459.8
HD21.157       10  9377.3 10398.0
X121.431       75  9467.9 10343.5    1205    1490 1443.17
X3                          9350    1193   10343    1193
XL                          9100   11200
GR1195.9  7596.7  1191.5  7612.7  1191.4  7644.6  1196.1  7665.8  1189.9  7681.7
GR1191.3  7876.2  1193.0  7887.7  1192.5  8007.9  1185.7  8031.5  1185.9  8041.4
[illegible]92.9  8065.9  1190.8  8089.6  1191.6  8356.5  1193.7  8627.3  1195.3  8703.6
[illegible]96.7  8717.0  1195.1  8733.0  1205.5  8755.9  1205.1  8780.9  1199.7  8795.6
G[illegible]196.6  8800.4  1196.9  8892.0  1202.5  8926.6  1201.4  8930.6  1203.4  8949.5
GR1199.5  8989.0  1195.1  9005.1  1191.3  9141.2  1193.3  9161.8  1194.7  9167.9
GR1193.7  9177.6  1190.6  9190.7  1190.4  9217.3  1191.3  9222.0  1189.3  9238.6
GR1190.4  9361.8  1187.8  9437.8  1191.1  9467.9  1181.0  9503.2  1181.0  9799.0
GR1189.0  9800.0  1189.0  9908.9  1189.0 10297.8  1193.9 10343.5  1192.1 10360.2
GR1187.6 10374.6  1186.6 10495.9  1187.6 10526.0  1191.0 10541.7  1193.0 10600.4
GR1189.2 10648.7  1190.5 10725.7  1189.2 10747.4  1192.0 10769.6  1193.8 10884.0
GR1191.3 10913.5  1192.6 10942.3  1193.3 10978.9  1191.6 11001.4  1193.8 11018.7
```

```
GR1194.8 11074.7  1193.2 11110.2  1193.9 11147.9  1192.9 11175.9  1194.9 11305.7
GR1193.2 11532.5  1194.0 11644.1  1192.2 11705.1  1194.0 12017.4  1193.5 12215.3
GR1194.4 12220.4  1195.6 12414.0  1197.2 12438.2  1206.9 12475.0  1211.6 12485.0
HI     31      10  9190.7 10769.6
NC   .045    .055    .035
     *********UPSTREAM END OF BEARDSLEY -1*************************************
     *********LOCATION OF ROSE GARDEN -1*************************************
     ****************************************************************************
X121.893      93  9558.8 10146.5    2525    2070 2442.15
X3                         9546    1200   11050    1200
XL                         9604   12000
GR1200.4  9546.7  1199.5  9548.9  1201.2  9558.8  1194.2  9576.0  1195.0  9660.8
GR1193.5  9708.0  1193.3  9788.3  1192.3  9798.3  1193.8  9857.6  1193.6  9914.6
GR1189.8 10013.5  1187.4 10023.1  1187.6 10040.6  1191.5 10070.2  1191.0 10096.6
GR1195.0 10112.4  1196.7 10146.5  1197.2 10313.7  1197.6 10374.9  1194.0 10402.2
GR1196.6 10443.8  1195.8 10529.3  1192.0 10545.6  1192.0 10653.2  1193.6 10674.7
GR1194.4 10681.1  1193.8 10686.8  1195.3 10710.7  1195.3 10729.1  1201.1 10751.6
GR1200.1 10758.1  1202.1 10912.2  1202.4 11070.0  1202.6 11098.0  1197.7 11126.5
GR1198.0 11174.4  1197.1 11182.9  1199.7 11204.9  1201.2 11232.0  1201.0 11256.9
GR1198.2 11281.1  1199.3 11293.4  1198.7 11313.6  1200.8 11397.0  1200.5 11454.0
GR1198.7 11486.0  1200.7 11625.1  1200.4 11796.9  1200.9 11913.0  1199.9 12012.6
GR1200.7 12055.2  1205.4 12105.2  1207.4 12120.2  1208.8 12124.9  1207.4 12130.3
GR1203.7 12134.7  1180.2 12172.8  1176.8 12177.0  1173.5 12223.1  1173.5 12236.4
GR1169.3 12248.6  1167.7 12263.0  1171.1 12283.8  1169.8 12295.3  1165.9 12311.2
GR1161.5 12326.4  1161.2 12423.3  1163.6 12524.8  1194.5 12550.3  1195.6 12574.7
GR1203.6 12589.8  1201.3 12595.1  1201.5 12701.2  1199.1 12771.4  1201.4 12782.6
GR1206.6 12820.3  1201.8 12861.9  1202.0 12938.0  1202.9 12958.4  1205.5 12964.5
GR1205.6 12967.9  1203.2 12974.5  1203.6 12980.5  1209.1 12994.1  1209.3 13024.5
GR1205.0 13043.5  1206.6 13126.4  1203.6 13135.0  1204.0 13306.5  1205.1 13378.9
GR1204.2 13388.4  1202.5 13397.1  1219.7 13455.6
HD21.893      10  9558.8 10758.1
       -------UPSTREAM OF DEER VALLEY ROAD--------
   ***********DOWNSTREAM END OF DEER VALLEY-1S, 1N, AND DEER VALLEY-2***********
   ****************************************************************************
X122.177      89  9909.7 10533.6    1425    1520 1500.23
X3                         8765.7    1206   10650    1206
XL                         8850   11100
GR1207.0  8765.7  1207.1  8786.8  1204.9  8844.5  1203.0  8855.1  1199.5  8865.5
GR 99.8  8878.3  1197.7  9076.9  1201.5  9111.1  1201.8  9131.3  1203.9  9160.3
 4.1  9366.4  1203.1  9432.5  1200.7  9451.7  1202.2  9529.3  1201.7  9586.2
GR 02.1  9705.0  1200.6  9773.2  1199.6  9909.7  1197.1 10001.3  1196.9 10057.0
GR1196.2 10078.7  1201.5 10089.5  1196.9 10231.7  1196.0 10350.6  1196.0 10510.5
GR1200.7 10533.6  1197.5 10557.0  1194.4 10565.7  1197.7 10653.0  1196.0 10668.4
GR1193.8 10790.9  1194.5 10950.2  1197.8 10965.9  1202.7 10979.9  1202.4 11012.5
GR1201.0 11024.0  1201.8 11036.9  1212.9 11068.5  1203.3 11092.5  1202.5 11126.9
GR1202.8 11163.1  1207.3 11173.2  1206.9 11197.3  1205.9 11206.1  1207.0 11344.6
GR1210.4 11352.1  1213.2 11360.4  1207.1 11376.6  1207.1 11600.9  1208.7 11813.7
GR1213.6 11826.7  1214.6 11832.4  1212.5 11856.3  1214.4 11897.1  1212.8 11966.7
GR1214.0 12077.6  1211.0 12191.7  1212.2 12252.6  1211.1 12304.1  1211.6 12311.6
GR1210.8 12326.4  1213.5 12334.0  1206.8 12349.9  1206.8 12409.5  1212.7 12439.6
GR1212.4 12476.5  1206.8 12489.2  1206.8 12564.8  1211.1 12576.8  1209.7 12583.4
GR1207.7 12667.9  1213.9 12678.3  1214.7 12678.9  1214.2 12696.7  1210.2 12709.6
GR1208.5 12713.4  1208.1 12737.7  1220.1 12763.9  1219.5 12790.0  1216.3 12811.3
GR1219.0 12823.9  1216.4 12834.3  1212.8 12843.9  1213.0 12857.8  1211.9 12881.8
GR1209.2 12892.3  1208.1 12903.1  1220.1 12936.6  1220.4 12953.7
HD22.177      10     8850   11500
NC  .045    .045    .035
X122.462      77  9887.4 10318.9    1530    1400 1478.14
X3    10
XL                         9050   10800
GR1214.1  9040.3  1204.2  9050.4  1200.9  9054.7  1201.9  9096.6  1203.8  9113.8
GR1203.8  9121.3  1202.8  9131.0  1202.7  9157.9  1205.0  9180.8  1203.4  9243.2
GR1205.9  9269.8  1205.1  9286.9  1206.8  9364.8  1206.9  9426.2  1208.3  9443.7
GR1208.8  9457.7  1208.0  9482.3  1206.3  9500.7  1206.7  9569.8  1208.1  9670.4
GR1208.0  9753.1  1206.3  9887.4  1203.2  9904.4  1200.3  9916.7  1202.4  9965.0
GR1202.2  9995.7  1203.8 10034.6  1204.6 10185.7  1204.1 10207.9  1202.3 10213.2
GR1203.0 10277.6  1202.5 10298.1  1208.7 10318.9  1209.5 10430.6  1208.5 10528.4
GR1207.3 10553.7  1206.1 10567.0  1203.7 10578.9  1203.5 10588.1  1206.1 10597.7
GR1205.5 10693.6  1206.9 10714.4  1206.8 10754.0  1205.9 10778.0  1210.3 10789.3
GR1203.0 10806.5  1203.0 11063.7  1203.1 11084.2  1203.5 11091.6  1203.0 11108.3
GR1205.2 11122.0  1205.4 11127.3  1204.6 11132.0  1205.1 11135.9  1203.0 11141.3
GR1203.0 11143.1  1203.0 11674.7  1203.1 11712.6  1203.2 11750.2  1205.2 11762.2
GR1205.6 11785.7  1205.5 11850.5  1210.5 11868.3  1210.3 11895.4  1211.2 12107.3
GR1211.4 12348.4  1212.1 12564.8  1212.3 12672.9  1213.1 12727.6  1213.3 12937.8
 13.2 12969.2  1214.0 12976.0  1214.8 13009.5  1218.7 13078.4  1218.7 13121.7
 17.8 13132.1  1225.6 13192.8
HD22.462      10  9050.4   12200
X122.745      92  9797.7 10147.8    1520    1270 1491.33
X3    10
XL                         8910   11000
GR1225.1  8903.1  1207.9  8919.7  1208.2  8963.5  1207.5  9060.1  1207.7  9092.9
GR1206.4  9114.7  1206.1  9143.1  1208.9  9172.4  1211.8  9209.3  1212.0  9328.1
GR1211.9  9402.0  1212.9  9418.9  1212.4  9534.3  1211.5  9563.3  1211.0  9595.9
GR1211.2  9640.5  1210.6  9677.3  1210.8  9692.3  1209.6  9711.3  1209.4  9723.7
```

```
GR1211.0  9745.9  1211.9  9797.7  1211.1  9835.1  1208.8  9954.1  1207.1  9981.3
GR1207.0 10008.3  1206.3 10036.6  1207.2 10049.9  1207.2 10119.2  1210.2 10147.8
GR1210.8 10219.0  1210.4 10251.5  1211.9 10260.4  1211.3 10309.2  1211.7 10324.5
GR     5 10377.1  1211.5 10388.9  1212.2 10429.8  1212.2 10482.5  1211.9 10494.4
GR1    2 10515.1  1210.5 10539.3  1212.7 10587.8  1212.6 10693.2  1212.4 10746.0
GR1212.9 10851.1  1210.4 10874.3  1210.1 10904.0  1212.0 10941.3  1212.2 10956.6
GR1211.7 11009.3  1211.2 11028.1  1212.9 11064.9  1212.4 11099.8  1210.7 11127.4
GR1212.4 11180.0  1212.7 11259.2  1212.5 11272.7  1212.8 11327.7  1209.3 11351.0
GR1208.3 11378.9  1207.9 11394.3  1206.2 11399.0  1207.0 11430.8  1206.0 11521.2
GR1209.3 11533.2  1209.6 11536.1  1210.0 11641.5  1210.0 11668.6  1208.1 11687.0
GR1210.0 11694.4  1209.8 11721.1  1210.6 11746.8  1211.1 11799.5  1210.6 11904.9
GR1210.8 11957.6  1210.1 12011.8  1209.3 12027.9  1209.6 12051.8  1211.3 12062.3
GR1211.9 12081.2  1212.6 12088.4  1213.4 12113.3  1214.8 12123.8  1214.9 12168.3
GR1215.3 12220.9  1215.3 12248.1  1215.9 12273.6  1216.2 12326.3  1217.0 12371.3
GR1222.8 12402.3  1222.5 12409.2
HD22.745      10    8910   12200
   ************UPSTREAM END OF DEER VALLEY SAND AND GRAVEL MINES***************
   ****************************************************************************
   ************DOWNSTREAM END OF PINNACLE 1S, 1N, 2, 3W, AND 3E***************
   ****************************************************************************
X122.935      94  9530.2 10351.6    2480    2125 2490.47
X3    10
XL                         8400   10750
GR1220.0  8478.1  1216.5  8483.9  1209.0  8492.7  1209.0  8541.4  1209.8  8593.0
GR1209.5  8623.7  1211.8  8638.1  1212.2  8644.8  1211.3  8746.3  1212.4  8772.4
GR1212.5  8782.3  1210.6  8800.5  1210.0  8839.6  1211.6  8869.5  1213.5  8894.6
GR1214.2  8936.6  1212.6  8962.1  1212.4  8974.7  1214.6  8991.9  1213.7  9001.1
GR1213.4  9012.1  1215.7  9027.2  1216.0  9058.6  1214.9  9162.0  1214.4  9213.7
GR1215.0  9265.5  1215.1  9317.2  1215.4  9331.4  1214.8  9372.3  1216.3  9413.3
GR1216.3  9472.4  1214.8  9530.2  1210.6  9542.3  1212.1  9575.8  1211.3  9622.6
GR1211.4  9679.2  1211.9  9699.5  1212.1  9730.9  1213.2  9773.4  1212.1  9822.2
GR1213.0  9886.1  1213.3  9937.8  1211.6 10017.5  1211.9 10118.3  1211.9 10145.4
GR1212.2 10156.3  1209.5 10173.6  1210.0 10241.7  1211.4 10250.1  1214.0 10262.0
GR1214.4 10351.6  1214.2 10403.3  1215.4 10454.7  1215.2 10558.7  1215.2 10662.0
GR1215.1 10721.9  1215.5 10762.8  1214.4 10819.8  1215.1 10857.4  1214.7 10865.3
GR1215.6 10897.6  1209.0 10913.6  1209.1 10955.1  1211.9 10967.7  1211.9 10984.9
GR1209.7 11072.3  1209.9 11083.9  1213.0 11096.7  1213.5 11191.9  1212.7 11282.6
GR1213.0 11356.1  1214.2 11458.1  1214.1 11547.1  1213.0 11596.6  1213.2 11605.7
GR1212.0 11613.2  1211.7 11626.3  1214.6 11638.0  1213.8 11653.6  1216.3 11683.4
G      .8 11741.8  1214.3 11745.7  1214.6 11761.9  1215.8 11785.2  1216.8 11831.6
GR     7.0 11855.2  1217.7 11866.3  1217.2 11872.6  1218.8 11915.0  1223.5 11955.0
GR1225.3 11975.5  1225.9 12008.2  1227.6 12033.7  1228.2 12069.7
HD22.935      10  8492.7   12000
         ----------PINNACLE PEAK ROAD----------
NC  .045    .045    .035
X123.409      93  9675.2 10060.2    2450    2360 2505.26
X3                         9550    1226 12265.5    1226
XL                         8700   11160
GR1256.3  7735.9  1256.2  7750.9  1230.4  7791.4    1231  7799.5  1230.7  7813.6
GR1228.9  7829.9  1228.9    7848  1227.5  7854.5  1225.7  7858.5  1225.8  7874.5
GR1224.7  7925.3  1224.9  8004.6  1224.3  8121.4  1222.9  8128.6  1222.9  8137.8
GR1224.3  8143.3  1224.4    8147  1218.3  8173.3  1218.8  8283.2  1218.5  8305.9
GR1221.1  8338.7  1221.5  8349.7  1221.2  8385.4    1222  8419.6  1221.6  8441.4
GR1221.8  8470.7    1220  8485.1  1220.9  8589.8  1219.3  8692.6  1218.8  8702.3
GR1218.6  8794.3  1218.2  8808.7    1223  8830.7  1223.6  8845.4  1222.8    8907
GR  1223  8947.6    1222  8977.9    1222  9031.1  1222.9  9049.9  1222.2    9101
GR  1221  9152.2  1221.5  9197.7  1222.5    9217  1223.4  9354.4  1223.7  9356.6
GR  1223  9522.1  1223.7  9561.1  1223.6  9675.2  1220.5  9686.2  1219.3  9713.7
GR1221.7  9811.5  1222.1  9867.8  1220.9  9918.9  1218.8  9939.5  1222.2 10021.2
GR  1222 10030.4  1225.4 10060.2  1225.1 10154.4  1225.6 10174.6  1221.8   10379
GR1221.9 10407.3  1222.8 10449.5  1222.4 10582.3  1221.4 10615.1  1222.4 10660.2
GR  1222 10702.4  1221.1 10736.8  1221.1   10769  1217.6 10787.7  1216.7   10796
GR1218.5 10890.2  1217.9 10919.7    1224 10945.4  1224.1 11043.5  1223.4 11145.8
GR1222.1 11192.4  1223.1 11350.2  1222.8 11395.3    1220 11409.7  1220.7 11440.1
GR1218.9 11453.4  1219.4   11481  1223.9 11496.7  1225.8 11510.2  1225.6 11629.8
GR1226.2 11671.9  1225.8 11708.1    1226 11811.1  1226.4 11983.3  1225.7 11990.8
GR  1227 11995.5  1226.6 12052.6    1229   12250
HD23.409      10  8173.3   12200
X123.692      92  9869.5 10339.2    1460    1455 1492.88
X3                         9650    1230 11533.8    1230
XL                         9670   11450
GR1249.2    6690  1249.2  8010.6    1232  8040.7    1217  8064.8  1206.1  8092.9
GR  1206  8096.9  1201.9  8135.1  1201.4  8210.8  1202.5  8214.5  1212.3  8236.5
GR1219.1    8249  1223.8    8259  1223.6  8273.3  1208.2  8305.9  1207.7  8359.5
G   99.7  8383.2  1198.6  8394.4  1197.8    8409    1198  8412.1  1195.3  8460.9
    4.7  8478.5    1195  8488.3  1193.4  8524.5  1192.8  8550.6  1192.9  8601.8
G  92.3  8644.7    1191  8850.7  1190.7  8940.5  1191.1  8982.8  1190.8  9001.7
GR1191.4    9051    1191    9241  1190.3  9294.9  1190.5  9312.2  1188.8  9461.1
GR1187.9  9512.2  1187.1  9533.1  1186.7  9600.8    1194  9614.7  1195.8  9616.7
GR1229.7  9648.2  1229.5  9660.7    1229  9668.2  1229.3  9671.3  1226.8  9681.7
GR1226.3  9720.8  1229.5  9733.8  1229.9  9767.4  1229.5  9787.1  1229.5  9869.5
GR1223.9  9897.3  1223.8  9971.6  1224.3 10044.9  1225.7   10077    1227 10124.7
GR  1227 10187.8  1227.5 10194.4  1225.6 10203.5  1226.4 10319.8  1227.4 10339.2
GR1226.9 10382.2  1226.4 10393.6  1227.6 10444.7  1228.2 10514.5  1228.2 10549.6
```

```
GR1226.1 10559.9    1226   10583  1227.6 10607.5  1227.9 10621.6  1224.3 10637.9
GR1224.5 10675.4  1228.1 10690.3  1228.8 10839.5  1228.3 10890.4  1228.9 10941.6
GR1228.3 10992.6    1229 11043.6  1228.1 11095.7  1229.6 11162.5  1229.7 11186.1
G     .9 11247.8  1228.8 11285.6  1227.1 11315.5  1225.5 11324.7  1225.3 11356.5
G     .3 11384.6  1227.1 11396.5  1227.2 11429.5  1225.4 11433.6  1240.7 11468.5
GR  1238 11521.1  1237.8 11533.8
HD23.692      10    7000   11450
NC  .055    .055    .050
X123.974      94  9716.2 10115.2    1420    1470 1489.37
X3                         9716    1238 11204.9    1238
XL                         9716   11200
GR1269.8    7400  1269.5  7473.5  1273.0  7482.1  1266.9  7509.6  1265.6  7558.6
GR1264.4  7562.0  1264.2  7576.0  1262.7  7576.8  1263.1  7578.2  1257.8  7586.6
GR1254.6  7593.3  1249.1  7602.5  1231.9  7627.3  1231.1  7774.9  1230.1  7821.5
GR1231.4  7829.1  1230.4  7941.6  1231.4  8024.4  1231.6  8198.2  1235.4  8254.0
GR1235.5  8318.5  1232.8  8351.1  1234.8  8370.8  1235.9  8403.1  1234.6  8420.3
GR1229.9  8445.4  1228.7  8464.9  1229.5  8485.0  1234.3  8506.0  1234.8  8543.1
GR1234.1  8546.0  1234.5  8550.1  1229.2  8565.6  1230.7  8648.0  1230.9  8814.3
GR1232.0  8898.5  1229.8  9001.5  1229.1  9008.3  1227.9  9102.9  1226.9  9118.2
GR1222.9  9132.2  1223.3  9177.1  1222.3  9200.2  1226.6  9218.9  1226.0  9358.3
GR1225.0  9399.9  1226.0  9433.7  1225.4  9465.1  1230.3  9506.7  1230.8  9563.1
GR1236.6  9583.0  1235.2  9586.4  1228.1  9595.9  1231.8  9621.4  1234.4  9693.0
GR1238.6  9716.2  1229.1  9729.9  1227.8  9772.7  1227.5  9833.4  1231.8  9891.3
GR1230.5  9916.5  1230.4  9964.1  1232.0  9977.2  1236.5  9992.0  1232.6 10005.8
GR1231.9 10010.7  1232.5 10019.0  1234.9 10030.1  1231.9 10036.8  1230.0 10073.5
GR1230.7 10110.9  1233.1 10115.2  1234.8 10128.6  1232.8 10151.6  1232.2 10212.3
GR1229.6 10239.8  1230.2 10354.5  1229.1 10371.5  1232.4 10388.9  1232.5 10439.1
GR1233.5 10490.5  1231.8 10554.8  1233.5 10644.6  1232.4 10714.7  1232.8 10747.3
GR1231.6 10828.7  1233.7 10842.9  1231.4 10994.6  1230.5 11034.8  1235.7 11058.4
GR1236.3 11109.1  1237.7 11139.4  1254.2 11185.4  1253.5 11204.9
HD23.974      10  7400.0 10388.9
    ------DOWNSTREAM OF HAPPY VALLEY ROAD-------
    ********DOWNSTREAM END OF PINNACLE 1S, 1N, 2, 3W, 3E**********************
    ***********************************************************************
NC  .045    .045    .035
X124.449      92  9496.2 10169.3    2380    2560 2506.65
X3    10
GR1263.1  7480.4  1261.5  7489.1  1250.1  7529.5  1249.2  7543.3  1248.2  7549.9
GR1245.9  7555.7  1247.2  7582.8  1248.9  7594.4  1246.2  7645.6  1245.2  7718.8
G     7.2  7752.2  1248.1  7786.1  1247.8  7811.3  1245.8  7857.9  1245.7  7875.1
G     5.3  7884.4  1244.3  7893.4  1244.1  7898.5  1240.3  7915.9  1239.3  8016.4
GR1239.1  8069.2  1239.5  8122.0  1240.1  8156.4  1239.5  8235.2  1239.5  8280.5
GR1238.4  8322.6  1239.6  8343.5  1239.5  8355.6  1240.2  8439.1  1240.2  8510.9
GR1239.5  8550.3  1239.9  8597.6  1239.9  8650.4  1239.3  8695.0  1240.0  8709.4
GR1240.9  8750.2  1240.5  8756.1  1242.0  8876.0  1242.1  9030.7  1241.9  9090.1
GR1240.3  9161.6  1241.1  9181.1  1241.1  9192.2  1242.2  9231.6  1241.9  9337.3
GR1240.9  9390.1  1240.2  9496.2  1239.0  9538.6  1237.6  9557.0  1236.8  9573.9
GR1236.9  9602.7  1238.3  9656.4  1238.3  9678.3  1239.9  9694.6  1238.4  9856.2
GR1237.8  9864.3  1238.2  9890.0  1236.9  9916.2  1235.0  9982.5  1236.4 10034.9
GR1238.0 10047.2  1238.4 10084.9  1237.6 10101.9  1236.8 10111.0  1237.1 10131.9
GR1242.7 10169.3  1243.4 10182.6  1243.3 10247.2  1242.7 10272.2  1239.6 10285.3
GR1240.2 10341.1  1240.2 10392.7  1239.0 10423.1  1237.8 10552.5  1238.2 10627.8
GR1238.7 10658.1  1238.7 10763.8  1240.1 10846.9  1239.6 10873.0  1240.3 10904.3
GR1240.2 10920.1  1240.7 10924.8  1239.7 10968.5  1239.8 10975.1  1237.8 11100.8
GR1236.8 11143.3  1236.9 11292.1  1236.6 11313.1  1256.8 11340.0  1262.3 11347.9
GR1266.4 11355.0  1266.2 11372.5
HD24.449      10  7898.5 11143.3
          ----------UPSTREAM OF HAPPY VALLEY ROAD----
X124.543      91  9646.7 10243.6     495     495  500.50
X3    10
XL                         9300   10400
GR1263.5  7211.0  1252.7  7236.5  1251.5  7278.4  1251.6  7286.8  1254.4  7313.5
GR1253.6  7369.3  1252.4  7377.4  1251.9  7386.5  1249.9  7404.2  1248.7  7467.2
GR1249.7  7472.7  1252.9  7484.9  1255.5  7497.4  1254.7  7502.0  1254.6  7528.3
GR1256.3  7533.7  1254.5  7542.2  1252.6  7637.5  1252.0  7691.0  1250.6  7746.3
GR1249.7  7812.2  1247.4  7826.0  1243.4  7844.8  1242.1  8008.2  1241.3  8113.9
GR1241.9  8182.1  1241.8  8219.6  1242.3  8252.1  1239.4  8262.4  1242.2  8277.0
GR1241.9  8339.5  1242.2  8490.8  1242.5  8589.6  1241.9  8649.4  1243.0  8695.3
GR1243.0  8853.8  1244.5  9012.4  1243.7  9118.1  1244.1  9223.8  1243.7  9281.4
GR1242.1  9297.8  1242.1  9329.5  1243.0  9358.2  1240.9  9382.8  1240.8  9435.3
GR1236.3  9582.1  1235.6  9594.4  1243.3  9622.9  1243.5  9646.7  1241.9  9709.0
GR1242.3  9742.6  1244.0  9751.8  1245.4  9766.1  1244.5  9793.5  1243.5  9796.0
GR1242.9  9806.8  1240.2  9821.0  1239.6  9874.8  1240.3  9923.3  1239.0  9952.8
GR1240.5  9966.8  1240.8 10077.7  1237.6 10212.4  1237.8 10229.1  1243.2 10243.6
G    43.4 10280.9  1242.6 10333.8  1242.5 10386.8  1243.4 10439.4  1241.6 10550.6
     9.4 10565.8  1239.2 10598.0  1238.6 10619.5  1240.4 10703.7  1240.8 10780.2
GR1239.9 10859.1  1240.9 10869.5  1240.8 10915.2  1241.7 11080.7  1239.4 11105.3
GR1241.4 11119.9  1239.4 11166.5  1239.8 11241.2  1239.5 11244.2  1238.3 11247.1
GR1238.7 11285.1  1238.3 11331.3  1238.6 11360.1  1236.8 11366.3  1237.7 11413.5
GR1259.5 11435.6
HD24.543      10    8000 11413.5
NC   .05     .05    .035
X124.996      96  9774.0 10632.3    2320    2330 2388.18
X3    10
```

```
GR1254.4  7668.6  1255.6  7682.4  1253.3  7774.4  1252.5  7785.0  1252.9  7828.8
GR1250.8  7840.2  1249.6  7995.9  1250.5  8047.8  1250.3  8099.7  1248.3  8201.7
GR1251.3  8255.4  1250.9  8411.0  1250.4  8444.6  1251.5  8463.0  1253.0  8566.7
GF     .8 8652.6  1252.5  8696.2  1251.2  8717.9  1252.0  8746.9  1253.0  8753.4
GR     .3 8948.2  1252.1  9141.0  1251.8  9301.7  1249.0  9319.2  1250.0  9345.0
GR1249.7  9404.1  1251.9  9428.2  1253.9  9461.8  1251.9  9472.2  1253.0  9564.4
GR1252.2  9619.0  1251.5  9625.6  1253.1  9632.6  1253.1  9774.0  1249.9  9791.3
GR1251.3  9888.4  1248.8  9906.8  1246.5  9913.9  1246.3  9992.8  1251.7 10012.2
GR1251.9 10171.5  1251.6 10198.7  1250.5 10222.4  1251.0 10358.3  1249.9 10397.4
GR1247.8 10423.0  1247.9 10562.7  1251.0 10632.3  1251.3 10742.4  1250.8 10781.7
GR1248.5 10834.6  1246.8 10901.3  1246.9 10937.6  1249.6 10961.7  1249.1 11048.3
GR1246.4 11064.6  1246.4 11141.1  1250.7 11165.4  1250.6 11205.1  1251.4 11268.0
GR1248.9 11363.8  1250.7 11381.9  1251.5 11417.3  1250.3 11433.5  1252.5 11592.2
GR1252.6 11754.2  1251.3 11837.5  1252.5 11924.5  1247.9 11950.2  1249.3 12001.8
GR1251.6 12125.4  1248.6 12142.4  1248.2 12162.5  1249.1 12171.5  1248.7 12200.8
GR1248.0 12211.3  1249.8 12369.4  1250.4 12415.7  1248.6 12477.3  1248.6 12557.6
GR1247.9 12565.5  1251.2 12585.7  1252.4 12638.3  1251.9 12653.4  1252.8 12687.0
GR1251.6 12800.2  1253.2 12843.0  1252.7 12865.4  1251.6 12881.9  1252.7 12938.1
GR1250.9 12975.2  1250.9 13009.4  1248.8 13019.0  1250.7 13059.6  1254.0 13074.1
GR1270.0 13110.8
HD24.996      10  9632.6 11205.1
          ----------DOWNSTREAM OF JOMAX ROAD------
NC  0.05    0.05    0.03
X125.478      93  9750.7 10127.1    2600    2485 2546.34
X3    10
GR1266.4  9454.8  1266.3  9462.5  1266.6  9467.0  1264.1  9480.2  1262.3  9493.0
GR1267.1  9518.7  1262.5  9537.0  1262.0  9559.9  1262.1  9574.0  1258.4  9603.5
GR1258.9  9613.7  1260.9  9630.3  1261.6  9638.5  1261.9  9668.7  1262.0  9731.0
GR1261.9  9750.7  1256.0  9783.0  1254.8  9809.7  1255.0  9818.3  1254.8  9843.9
GR1257.0  9867.9  1256.9  9871.4  1256.5  9925.9  1256.2  9967.1  1256.2  9978.3
GR1255.4 10002.9  1254.7 10024.1  1254.5 10043.4  1254.3 10083.1  1253.9 10104.4
GR1253.9 10108.1  1257.7 10127.1  1257.7 10134.0  1258.0 10169.9  1258.2 10187.9
GR1258.4 10223.6  1258.5 10240.3  1258.5 10263.4  1258.3 10292.7  1257.0 10332.0
GR1257.6 10345.1  1257.5 10395.5  1257.1 10411.4  1258.2 10417.9  1258.1 10431.7
GR1257.6 10450.0  1257.5 10504.6  1257.4 10539.4  1257.1 10566.7  1260.3 10593.4
GR1260.2 10598.2  1261.0 10622.4  1261.1 10659.6  1261.4 10711.1  1261.4 10711.9
GR1261.0 10764.3  1260.7 10821.9  1260.8 10869.1  1260.7 10883.2  1260.8 10921.5
GR1260.5 10959.6  1260.3 10981.5  1260.2 11026.3  1260.0 11078.8  1259.8 11101.1
GR1259.5 11131.2  1259.5 11141.0  1259.8 11183.6  1259.6 11234.0  1260.8 11248.0
G      ).6 11288.4  1260.1 11313.0  1259.7 11329.7  1260.3 11340.8  1260.1 11369.5
G     ,0.0 11382.3  1260.0 11422.5  1260.8 11433.9  1260.5 11477.6  1259.8 11498.0
GR1260.0 11506.6  1260.8 11539.1  1260.8 11551.3  1260.5 11589.5  1260.4 11591.7
GR1261.0 11612.2  1259.6 11628.8  1258.8 11665.3  1258.9 11666.4  1259.7 11701.5
GR1260.5 11739.0  1260.7 11748.7  1270.5 11764.3
HD25.478      10  9750.7 10598.2
         ----------UPSTREAM OF JOMAX ----------
X125.666      66  9842.4 10115.1    1035     975  995.18
X3    10
GR1275.1  9731.1  1266.5  9742.2  1262.3  9747.3  1268.1  9765.6  1265.6  9789.2
GR1263.2  9809.0  1261.8  9820.4  1259.6  9837.2  1259.8  9842.4  1255.4  9854.2
GR1255.5  9869.6  1256.6  9907.7  1256.6  9916.6  1257.0  9929.5  1256.6  9945.6
GR1256.5  9949.5  1256.5  9960.5  1256.4  9998.6  1256.7 10050.9  1256.2 10095.0
GR1258.3 10115.1  1259.3 10155.5  1259.4 10170.1  1259.4 10210.2  1259.6 10250.2
GR1259.6 10260.2  1259.8 10279.0  1260.0 10312.4  1260.4 10354.5  1260.6 10364.7
GR1260.6 10388.0  1260.6 10430.0  1260.6 10469.4  1260.5 10490.3  1260.6 10521.7
GR1261.1 10577.4  1261.3 10588.1  1264.4 10607.2  1264.4 10610.8  1263.8 10643.8
GR1263.5 10654.2  1264.6 10672.1  1264.3 10700.6  1263.5 10714.3  1263.1 10727.6
GR1263.3 10732.9  1263.9 10738.0  1264.3 10744.6  1264.1 10757.9  1263.9 10783.2
GR1263.4 10835.5  1262.7 10890.4  1261.4 10940.1  1260.7 10986.7  1260.2 11013.2
GR1259.9 11020.1  1260.3 11048.1  1260.3 11069.2  1260.8 11097.6  1260.9 11102.2
GR1262.5 11108.2  1269.9 11136.7  1272.2 11149.3  1277.0 11186.8  1277.3 11190.7
GR1278.3 11195.3
HD25.666      10  9854.2 10388.0
X1 25.86      25    9940   10200    1575    1565    1585
X3    10
GR  1300    7650    1280    7740    1276    7750    1272    8220    1268    8300
GR1267.5    8340    1268    8395  1270.8    8500    1268    8615  1267.6    8690
GR  1268    8795    1268    8960    1269    9060    1268    9190  1265.6    9335
GR  1266    9600    1268    9740    1268    9820    1264    9940    1260    9950
GR  1260   10055    1264   10200    1280   10215    1280   10300    1284   10340
HD 25.86      10    8300   10200
     ***************DOWNSTREAM LIMIT OF PINNACLE VISTA-1**************************
     ******************************************************************************
NC  0.06   0.065   0.035
Y   5.94    22.0    9945   10117     450     420     430
     10
X1                          8000   10000
GR1276.1    7527    1273    7678  1273.9    7868  1272.1  8087.0  1270.3  8382.0
GR1270.3  8578.0  1268.1  8600.0  1271.4  8631.0  1271.2  8762.0  1270.1  9101.0
GR1267.2  9241.0  1271.2  9532.0  1269.2  9945.0  1264.2 10000.0  1267.0 10117.0
GR1263.4 10185.0  1270.1 10242.0  1270.3 10425.0  1269.7 10480.0  1269.0 10780.0
GR1276.0 11050.0  1276.0   12000
HD 25.94      10    8000   11970
X1 26.29    26.0    9696   10120    1640    1875    1810
```

```
X3     10
XL                          8200   13250
GR1307.9  8275.0  1279.3  8338.0  1278.4  8722.0  1275.7  8754.0  1276.5  8962.0
GR1     4  9349.0  1273.2  9372.0  1276.7  9696.0  1274.9  9925.0  1271.6  9943.0
GR1     6 10000.0  1273.7 10084.0  1278.8 10120.0  1278.2 10393.0  1278.4 10757.0
GR1275.0 11021.0  1273.9 11201.0  1279.2 11227.0  1276.8 11724.0  1278.8 11784.0
GR1280.5 12462.0  1281.9 12794.0  1279.6 12804.0  1312.6 12882.0  1311.4 13079.0
GR1312.6 13300.0
HD 26.29       10    8200   12800
NC  0.06     0.07   0.035
X1 26.63     22.0    9792   10187    1800    1840    1840
X3     10
XL                          9200   11850
GR1310.9  9050.0  1310.0  9116.0  1288.0  9208.0  1286.8  9488.0  1282.7  9510.0
GR1282.7  9641.0  1284.1  9792.0  1279.5 10000.0  1281.8 10187.0  1280.9 10467.0
GR1279.4 10741.0  1282.9 10861.0  1283.0 11016.0  1285.4 11057.0  1285.6 11351.0
GR1283.8 12475.0  1286.4 13757.0  1288.6 13810.0  1348.8 13939.0  1348.8 13956.0
GR1345.6 13961.0  1345.6 14400.0
HD 26.63       10    9200   14370
    ******************UPSTREAM LIMIT OF PINNACLE VISTA-1*************************
    ******************************************************************************
X1 26.73     31.0    9898   10125     460     470     490
X3     10
GR1312.2  9355.0  1313.9  9457.0  1289.8  9540.0  1287.5  9720.0  1282.4  9755.0
GR1285.6  9834.0  1280.7  9898.0  1279.8 10000.0  1279.9 10125.0  1279.9 10364.0
GR1283.4 10385.0  1283.4 10521.0  1280.9 10543.0  1283.2 10628.0  1285.7 11057.0
GR1287.2 11263.0  1286.8 11621.0  1286.8 13292.0  1287.3 13590.0  1290.5 13648.0
GR1286.3 13673.0  1302.5 13759.0  1293.3 13811.0  1295.0 13870.0  1317.7 13944.0
GR1310.7 13981.0  1332.7 14126.0  1350.7 14161.0  1350.7 14176.0  1346.0 14188.0
GR1346.0 14190.0
HD 26.73       10    9400   11200
X1 27.03     23.0    9922   10079    1660    1020    1590
X3     10
GR1307.8  9627.0  1301.5  9679.0  1283.2  9723.0  1281.2  9814.0  1282.6  9900.0
GR1287.2  9922.0  1283.5  9949.0  1283.4 10000.0  1283.4 10054.0  1286.2 10079.0
GR1288.9 10450.0  1290.7 10553.0  1288.0 10732.0  1291.0 10749.0  1291.0 11081.0
GR1291.4 12573.0  1293.7 12649.0  1291.4 12657.0  1301.2 12783.0  1303.3 12821.0
GR1300.5 12889.0  1319.6 12961.0  1330.8 13050.0
HD 27.03       10    9700   10600
N     055   0.055   0.035
    ******************DOWNSTREAM END OF DIXLETA-1*****************************
   ******************************************************************************
X1 27.48     36.0    9894   10087    2860    2160    2390
X3     10
XL                          7710   10080
GR1357.7  6865.0  1350.6  6903.0  1350.2  6923.0  1301.6  7048.0  1299.7  7138.0
GR1300.5  7579.0  1295.1  7603.0  1296.8  7764.0  1298.1  7834.0  1294.2  7891.0
GR1294.1  7961.0  1296.5  8010.0  1293.8  8054.0  1296.9  8084.0  1295.1  8126.0
GR1297.8  8226.0  1296.0  8427.0  1297.8  8611.0  1297.0  8717.0  1295.9  8742.0
GR1294.5  8960.0  1297.5  9033.0  1298.6  9348.0  1295.3  9547.0  1296.3  9669.0
GR1297.6  9742.0  1295.2  9753.0  1294.9  9894.0  1291.5 10000.0  1292.8 10087.0
GR1292.8 10157.0  1301.9 10203.0  1301.3 10736.0  1301.9 11132.0  1323.3 11258.0
GR1324.8 11319.0
HD 27.48       10    7030   10080
X1 27.68     35.0    9853   10078    1260    1040    1040
X3     10
XL                          7850   10200
GR1310.1  7060.0  1305.9  7509.0  1301.3  7550.0  1302.2  7781.0  1301.9  8224.0
GR1297.0  8243.0  1298.6  8317.0  1299.3  8587.0  1302.4  8679.0  1298.7  8774.0
GR1301.1  8870.0  1300.8  8938.0  1297.9  8961.0  1301.1  8999.0  1301.3  9184.0
GR1297.6  9230.0  1300.8  9293.0  1298.8  9379.0  1300.1  9459.0  1299.0  9624.0
GR1295.3  9640.0  1295.4  9695.0  1301.1  9738.0  1301.6  9853.0  1295.7 10000.0
GR1294.7 10078.0  1310.2 10125.0  1310.7 10428.0  1311.8 10663.0  1305.9 10703.0
GR1312.1 10728.0  1309.4 10746.0  1311.0 10884.0  1330.0 10991.0  1330.2 11145.0
HD 27.68       10    7270   10800
X1 27.94     24.0    9944   10187    1370    1415    1405
X3     10
XL                          8380   10300
GR1360.4  7500.0  1356.7  7704.0  1305.1  7886.0  1307.7  8084.0  1306.0  8202.0
GR1307.3  8314.0  1308.0  8514.0  1308.2  8676.0  1304.3  8729.0  1304.4  8806.0
GR1308.0  9057.0  1304.2  9174.0  1306.7  9260.0  1302.0  9309.0  1301.5  9374.0
GR1303.4  9391.0  1304.1  9657.0  1304.1  9944.0  1299.1 10000.0  1303.6 10035.0
GR1303.5 10187.0  1309.6 10212.0  1323.7 10246.0  1327.4 10339.0
HD 27.94       10    7850   10200
    ****************UPSTREAM LIMIT OF DIXLETA-1*****************************
    ***************************************************************************
  28.12     27.0    9906   10076     990     960     950
X3     10
GR1357.3  8340.0  1355.3  8384.0  1323.5  8506.0  1320.1  8630.0  1313.6  8697.0
GR1309.5  8719.0  1311.3  8878.0  1311.1  9108.0  1307.8  9129.0  1307.5  9182.0
GR1310.6  9258.0  1308.2  9300.0  1310.5  9411.0  1308.6  9524.0  1306.6  9675.0
GR1304.9  9906.0  1304.6 10000.0  1304.6 10076.0  1310.3 10107.0  1310.7 10411.0
GR1306.3 10527.0  1307.3 10680.0  1308.6 10781.0  1308.5 10866.0  1310.8 10916.0
GR1312.7 11051.0  1314.2 11435.0
```

```
HD 28.12       10     8750   11300
X1 28.67     37.0     9964   10192    2785     2925     2885
X3                           9450  1322.3    11202   1322.3
GR[illegible]2.7  9450.0  1371.0  9866.0  1319.8  9950.0  1311.5  9964.0  1312.2 10000.0
G[illegible].2 10192.0  1319.8 10514.0  1316.1 10819.0  1318.6 10989.0  1315.2 11044.0
GR[illegible]0.5 11203.0  1321.6 11445.0  1322.3 11634.0  1319.8 11968.0  1318.7 12107.0
GR1322.5 12170.0  1321.3 12228.0  1325.2 12397.0  1326.4 12792.0  1328.9 12823.0
GR1324.8 12860.0  1327.4 12972.0  1345.8 13057.0  1345.8 13259.0  1339.7 13321.0
GR1341.1 13419.0  1352.8 13484.0  1356.1 13572.0  1358.7 13589.0  1358.8 13606.0
GR1348.0 13629.0  1348.2 13655.0  1363.9 13681.0  1363.8 13698.0  1355.7 13713.0
GR1356.7 13851.0  1373.9 13912.0
HD 28.67       10     9900   11100
X1 28.95     34.0     9946   10353     1550      940     1465
X3     10
GR1376.3  9615.0  1376.6  9784.0  1371.6  9871.0  1325.0  9946.0  1314.8  9962.0
GR1312.3 10000.0  1317.7 10112.0  1321.6 10138.0  1324.5 10353.0  1322.2 10383.0
GR1322.5 10551.0  1318.3 10659.0  1325.0 10702.0  1324.6 11069.0  1325.8 11366.0
GR1324.5 11583.0  1322.1 11633.0  1324.9 11727.0  1323.6 12024.0  1329.7 12138.0
GR1326.2 12496.0  1330.1 12888.0  1335.9 13349.0  1348.0 13760.0  1355.7 13815.0
GR1355.7 13835.0  1345.5 13852.0  1345.5 13879.0  1354.8 13895.0  1352.9 13945.0
GR1360.9 14104.0  1364.9 14118.0  1364.9 14138.0  1376.2 14210.0
HD 28.95       10     9946   12000
X1 29.04     34.0     9828   10239      550      330      510
X3     10
GR1360.0     9770  1326.7  9808.0  1320.3  9815.0  1317.3  9828.0  1317.2  9859.0
GR1319.6  9940.0  1317.2 10000.0  1317.2 10048.0  1322.9 10073.0  1324.3 10239.0
GR1324.4 10414.0  1321.2 10499.0  1319.4 10584.0  1326.7 10638.0  1326.0 10868.0
GR1326.7 11104.0  1325.3 11444.0  1322.9 11472.0  1324.3 11521.0  1323.1 11750.0
GR1330.4 11802.0  1330.3 12323.0  1331.2 12554.0  1336.4 12706.0  1332.2 12882.0
GR1335.8 13217.0  1343.9 13578.0  1351.5 13599.0  1352.4 13621.0  1344.3 13633.0
GR1344.4 13654.0  1357.1 13668.0  1357.5 13697.0  1379.5 13780.0
HD 29.04       10     9800   11700
X1 29.54     30.0     9846   10150     2750     2235     2640
X3     10
GR1378.7  9025.0  1375.5  9068.0  1350.7  9135.0  1348.6  9179.0  1340.7  9198.0
GR1332.4  9217.0  1333.5  9321.0  1333.9  9460.0  1331.2  9697.0  1328.7  9726.0
GR1328.4  9758.0  1332.9  9782.0  1332.2  9846.0  1327.0  9882.0  1326.7 10000.0
GR1326.7 10116.0  1340.7 10150.0  1343.0 10343.0  1346.5 10482.0  1348.3 10927.0
GR1347.8 11457.0  1349.2 11687.0  1354.2 11697.0  1354.2 11723.0  1345.8 11737.0
G[illegible]5.8 11763.0  1355.3 11783.0  1355.4 11812.0  1352.6 11829.0  1378.3 11981.0
H[illegible].54       10     9210   10200
X1[illegible].611     31.0     9791   10094      315      315      375
X3     10
GR1377.8  8825.0  1353.2  9052.0  1337.2  9136.0  1336.3  9285.0  1332.4  9541.0
GR1332.9  9713.0  1334.0  9791.0  1328.9  9812.0  1328.9  9849.0  1331.6 10000.0
GR1331.6 10094.0  1342.3 10133.0  1351.2 10244.0  1345.5 10331.0  1349.1 10528.0
GR1349.1 10688.0  1349.9 10923.0  1353.4 10966.0  1353.4 11037.0  1345.1 11072.0
GR1345.1 11124.0  1352.5 11156.0  1352.5 11163.0  1345.4 11178.0  1345.5 11204.0
GR1353.7 11221.0  1353.4 11251.0  1351.1 11259.0  1353.1 11405.0  1358.4 11533.0
GR1378.5 11635.0
HD29.611       10     9000   10200
NC 0.055    0.055    0.040
X1 29.80     16.0     9882   10205      980     1025     1025
X3     10
GR1378.4  9270.0  1373.4  9347.0  1338.8  9419.0  1335.4  9475.0  1340.8  9512.0
GR1342.7  9656.0  1338.9  9882.0  1331.2  9924.0  1331.4 10000.0  1332.7 10180.0
GR1337.6 10205.0  1337.6 10215.0  1327.7 10335.0  1336.3 10521.0  1344.4 10610.0
GR1349.2 10676.0
HD 29.80       10     9882   10600
X1 30.07     17.0     9925   10098     1425     1440     1420
X3     10
GR1369.4  9325.0  1363.9  9463.0  1360.9  9604.0  1341.5  9665.0  1343.1  9728.0
GR1340.8  9781.0  1340.4  9910.0  1344.6  9925.0  1334.4  9986.0  1334.4 10000.0
GR1335.0 10060.0  1344.5 10098.0  1343.6 10114.0  1336.6 10132.0  1334.0 10261.0
GR1365.9 10306.0  1365.0 10356.0
HD 30.07       10     9600   10300
X1 30.26     12.0     9749   10135      870     1090     1005
X3     10
GR1357.2  9625.0  1361.9  9711.0  1342.1  9749.0  1338.9 10000.0  1339.3 10135.0
GR1341.7 10314.0  1347.9 10338.0  1348.7 10444.0  1341.6 10545.0  1341.7 10604.0
GR1363.6 10643.0  1389.4 10743.0
HD 30.26       10     9700   10250
X1 30.73     14.0     9881   10075     2455     2470     2460
X3     10
XL                           9850   10250
G[illegible]9.9  9710.0  1369.1  9839.0  1345.2  9881.0  1345.6 10000.0  1345.6 10075.0
G[illegible]2.6 10148.0  1349.9 10202.0  1355.7 10242.0  1355.7 10397.0  1354.4 10481.0
GR1357.6 10623.0  1356.4 10951.0  1351.7 11023.0  1394.0 11123.0
HD 30.73       10     9850   10250
X1 30.82     12.0     9924   10201      500      370      500
X3     10
GR1378.3  9630.0  1379.5  9833.0  1375.4  9865.0  1345.2  9924.0  1346.7 10000.0
GR1352.0 10201.0  1347.0 10358.0  1353.5 10398.0  1358.1 10582.0  1357.9 10879.0
GR1354.5 11132.0  1399.1 11244.0
```

```
HD 30.82       10     9900   10400
X1 31.39     17.0     9792   10080    2900    3165    2970
GR1397.8  9290.0  1386.7  9342.0  1392.7  9386.0  1393.4  9470.0  1356.5  9526.0
GR[illegible]54.7  9561.0  1361.2  9643.0  1363.1  9792.0  1359.4  9942.0  1356.8  9978.0
G[illegible]5.9 10000.0  1357.4 10080.0  1361.5 10242.0  1360.1 10387.0  1368.0 10456.0
G[illegible]68.6 10528.0  1407.9 10633.0
HD 31.39       10     9550   10400
X1 31.86     10.0     9894   10261    2550    2485    2505
X3     10
GR1411.1  8955.0  1408.4  9155.0  1407.3  9490.0  1362.0  9604.0  1364.9  9727.0
GR1366.7  9894.0  1366.7 10000.0  1365.3 10261.0  1394.3 10321.0  1420.6 10419.0
HD 31.86       10     9500   10300
NC 0.045    0.050    0.045
X1 32.43     14.0     9852   10112    2885    2970    2980
X3     10
GR1424.1  9340.0  1415.1  9438.0  1371.3  9508.0  1372.3  9554.0  1363.8  9607.0
GR1372.6  9692.0  1375.5  9852.0  1373.4  9965.0  1370.7 10000.0  1372.7 10073.0
GR1383.1 10112.0  1388.9 10373.0  1403.2 10437.0  1436.0 10487.0
HD 32.43       10     9450   10200
X1 32.72     28.0     9879   10150    1725    1145    1535
X3                           9435  1408.2   10524  1408.2
XL                           9600   10500
GR1434.8  9435.0  1432.6  9475.0  1394.5  9555.0  1393.9  9576.0  1380.1  9626.0
GR1383.9  9726.0  1399.6  9817.0  1396.5  9879.0  1372.0  9942.0  1369.9  9977.0
GR1365.7 10000.0  1364.0 10009.0  1363.8 10024.0  1383.9 10045.0  1406.8 10150.0
GR1409.3 10188.0  1395.8 10272.0  1401.6 10321.0  1372.1 10380.0  1373.6 10439.0
GR1397.0 10476.0  1408.2 10524.0  1404.1 10567.0  1380.2 10630.0  1379.6 10680.0
GR1389.5 10710.0  1390.0 10780.0  1442.6 10849.0
HD 32.72       10     9600   10700
X1 32.86     12.0     9928   10155     680     990     760
X3     10
GR1423.4  9670.0  1424.3  9719.0  1386.4  9797.0  1381.2  9855.0  1380.4  9928.0
GR1374.9 10000.0  1380.6 10079.0  1386.5 10155.0  1382.6 10239.0  1386.6 10279.0
GR1385.4 10331.0  1421.4 10564.0
HD 32.86       10     9800   10200
X1 32.92      9.0     9891   10143     290     370     310
X3                           9680    1390   10180    1390
GR1433.1  9680.0  1429.0  9769.0  1382.7  9891.0  1381.0 10000.0  1383.1 10143.0
GR1390.8 10230.0  1387.5 10331.0  1411.9 10412.0  1427.5 10507.0
[illegible]2.92       10     9890   10180
      ------------STATE ROUTE 74---------
X[illegible]2.984      33     9962   10011     338     358     343
X3     10
GR1427.7  9750.0  1425.2  9750.1  1391.6    9820  1391.6    9823  1391.6  9823.1
GR1389.7    9833  1389.7  9833.1  1389.7    9837  1385.5    9851    1384    9900
GR1385.8    9904  1385.8    9909  1385.8  9909.1  1386.6    9919  1386.6  9919.1
GR1386.6    9962  1380.0    9985  1380.0  9985.1  1380.0    9995    1380  9995.1
GR1378.4    9997  1380.2   10011  1382.2   10018  1384.2   10050  1386.8   10053
GR1387.9   10065  1387.9 10065.1  1390.7   10075  1390.7 10075.1  1392.3   10091
GR1423.8 10149.9  1426.0 10150.0  1427.0 10150.1
HD32.984        0       0       0
X132.998      9.0     9962   10108      72      72      72
      -------------************************-------------
X3     10
GR1434.1  9610.0  1433.1  9762.0  1389.0  9851.0  1386.3  9920.0  1381.4 10000.0
GR1393.1 10108.0  1413.1 10164.0  1417.9 10358.0  1440.7 10405.0
HD32.998       10     9851   10108
NC 0.045    0.045    0.050
       ------------DOWNSTREAM OF MORGAN CITY WASH---------
X1 33.41     12.0     9944   10366    1880    2270    2170
X3     10
GR1448.1  9750.0  1426.7  9864.0  1408.3  9944.0  1386.9 10000.0  1389.1 10157.0
GR1406.8 10366.0  1404.5 10483.0  1409.5 10576.0  1422.7 10626.0  1423.4 10668.0
GR1433.5 10685.0  1437.7 10687.0
HD 33.41       10     9900   10400
X1 33.82     20.0     9861   10068    2165    2220    2175
X3     10
GR1454.2  9465.0  1454.2  9506.0  1434.5  9527.0  1434.5  9538.0  1450.5  9565.0
GR1408.8  9662.0  1402.1  9714.0  1409.2  9795.0  1417.1  9861.0  1387.4  9966.0
GR1387.4 10000.0  1387.4 10023.0  1405.9 10068.0  1408.6 10117.0  1426.7 10204.0
GR1425.4 10292.0  1433.9 10347.0  1428.1 10416.0  1427.2 10466.0  1450.9 10600.0
HD 33.82       10     9600   10200
EJ
T4     AGUA FRIA RIVER SEDIMENT TREND ANALYSIS  FCD 99-24
T5     NEW WADDELL DAM TO GILA RIVER  KIMLEY-HORN AND ASSOCIATES
       BED GRADATIONS FROM FIELD SAMPLES
       FULL RANGE OF SANDS AND GRAVELS
T8     SEDIMENT TRANSPORT FUNTION:YANG'S STREAM POWER
I1              1       0
I4              4       1      10
LQ           5000    7000   17000   55000
LT           6457   10880   33475  146960
LF    VFS 0.02563 0.03675 0.01795 0.00716
LF     FS 0.13772 0.16853 0.13200 0.10199
```

```
LF     MS 0.21035 0.22940 0.21429 0.21542
LF     CS 0.23112 0.22521 0.22541 0.25124
LF    VCS 0.36207 0.32486 0.38978 0.39271
J     VFG 0.00367 0.00255 0.00203 0.00119
1      FG 0.00683 0.00452 0.00379 0.00284
LF     MG 0.01083 0.00681 0.00677 0.00652
LF     CG 0.00587 0.00134 0.00686 0.01048
LF    VCG 0.00073 0.00000 0.00108 0.01041
PF          .160       1      19    12.5      99     9.5      98     6.3      97
PFC 4.75      96    2.36      94       2      94    1.18      90     0.6      71
PFC0.425      44     0.3      19    0.15       2   0.075       1
PF          .440       1     9.5     6.3      99     4.8      99     2.4      98
PFC    2      97    1.18      94     0.6      83   0.425      68     0.3      47
PFC 0.15      15   0.075       4
PF          .730       1      19     9.5      99     6.3      98    4.75      96
PFC 2.36      93       2      91    1.18      81     0.6      56    .425      34
PFC  0.3      15    0.15       2   0.075       1
PF         1.330       1     9.5    2.36      99       2      98    1.18      94
PFC  0.6      68   0.425      40     0.3      16    0.15       5   0.075       4
PF         2.600       1      25      19      99    12.5      99     9.5      99
PFC  6.3      98    4.75      98    2.36      96       2      95    1.18      92
PFC  0.6      79   0.425      65     0.3      47    0.15      16   0.075       8
PF         3.767       1    37.5      25      98      19      97    12.5      96
PFC  9.5      94     6.3      92    4.75      91    2.36      87       2      86
PFC 1.18      78     0.6      62   0.425      50     0.3      36    0.15      19
PFC0.075      13
PF         4.790       1    37.5      25      98      19      96    12.5      92
PFC  9.5      89     6.3      85    4.75      82    2.36      80       2      79
PFC 1.18      69     0.6      45   0.425      28     0.3      15    0.15       5
PFC0.075       3
PF         5.380       1      19    4.75      99    2.36      98       2      98
PFC 1.18      93     0.6      64   0.425      36     0.3      14    0.15       2
PFC0.075       2
PF         5.689       1      19     6.3      98    4.75      96    2.36      89
PFC    2      86    1.18      71     0.6      45   0.425      27     0.3      12
PFC 0.15       2   0.075       2
PF         6.990       1    12.5    4.75      99    2.36      96       2      94
PFC 1.18      82     0.6      49   0.425      26     0.3      10    0.15       2
PFC0.075       1
           8.000       1      19    12.5      99     9.5      98     6.3      96
    4.75      95    2.36      91       2      90    1.18      79     0.6      54
PFC0.425      37     0.3      22    0.15       5   0.075       3
PF         8.992       1      50    37.5      98      25      97      19      95
PFC 12.5      94     9.5      91     6.3      88    4.75      85    2.36      80
PFC    2      78    1.18      67     0.6      44   0.425      29     0.3      18
PFC 0.15       8   0.075       5
PF         9.885       1      50    37.5      99      25      94      19      92
PFC 12.5      90     9.5      89     6.3      87    4.75      86    2.36      82
PFC    2      79    1.18      65     0.6      30   0.425      16     0.3      11
PFC 0.15       7   0.075       5
PF        11.029       1      50    37.5      99      25      96      19      93
PFC 12.5      88     9.5      83     6.3      77    4.75      73    2.36      66
PFC    2      62    1.18      46     0.6      18   0.425       9     0.3       6
PFC 0.15       2   0.075       0
PF        11.428       1    37.5      25      98      19      93    12.5      86
PFC  9.5      81     6.3      73    4.75      67    2.36      61       2      59
PFC 1.18      48     0.6      33   0.425      27     0.3      24    0.15      20
PFC0.075      18
PF        12.470       1      50    37.5      95      25      88      19      82
PFC 12.5      75     9.5      70     6.3      64    4.75      61    2.36      48
PFC    2      46    1.18      35     0.6      18   0.425       9     0.3       4
PFC 0.15       1   0.075       0
PF        13.467       1    37.5      25      99      19    98.5    12.5      98
PFC  9.5      97     6.3    96.5    4.75    96.2    2.36    96.1       2      96
PFC 1.18      93     0.6      79   0.425      58     0.3      33    0.15       7
PFC0.075       1
PF        14.430       1    37.5      25      99      19      99    12.5      99
PFC  9.5      99     6.3      99    4.75      98    2.36      95       2      93
PFC 1.18      80     0.6      46   0.425      25     0.3      13    0.15       4
PFC0.075       2
PF        15.719       1    62.5    37.5      88      25      85      19      80
PFC 12.5      76     9.5      73     6.3      69    4.75      66    2.36      62
PFC    2      59    1.18      45     0.6      28   0.425      23     0.3      21
PFC 0.15      13   0.075       5
P         16.482       1      25      19      99    12.5      97     9.5      96
     6.3      92    4.75      90    2.36      85       2      81    1.18      62
.    0.6      24   0.425       9     0.3       4    0.15       1   0.075       0
PF        16.612       1      75    37.5      92      25      85      19      80
PFC 12.5      73     9.5      70     6.3      65    4.75      62    2.36      49
PFC    2      44    1.18      29     0.6      16   0.425      11     0.3       6
PFC 0.15       2   0.075       1
PF        16.990       1      50    37.5      98      25      95      19      93
PFC 12.5      91     9.5      90     6.3      88    4.75      87    2.36      84
PFC    2      82    1.18      75     0.6      58   0.425      41     0.3      22
```

```
PFC 0.15        5   0.075        2
PF         17.821       1       50     37.5       92       25       85       19       73
PFC 12.5       60     9.5       53      6.3       47     4.75       44     2.36       36
PF´     2      34    1.18       25      0.6       12    0.425        6      0.3        3
P      15       1   0.075        0
Pb         18.275       1       50     37.5       94       25       83       19       76
PFC 12.5       66     9.5       59      6.3       50     4.75       45     2.36       39
PFC     2      36    1.18       27      0.6       19    0.425       15      0.3       13
PFC 0.15       11   0.075        9
PF         18.962       1     62.5     37.5       87       25       75       19       70
PFC 12.5       63     9.5       59      6.3       54     4.75       50     2.36       45
PFC     2      43    1.18       34      0.6       19    0.425       11      0.3        5
PFC 0.15        1   0.075        0
PF         19.920       1       50     37.5       96       25       87       19       82
PFC 12.5       75     9.5       70      6.3       65     4.75       61     2.36       53
PFC     2      50    1.18       35      0.6       14    0.425        7      0.3        5
PFC 0.15        2   0.075        1
PF         21.061       1     62.5     37.5       85       25       76       19       69
PFC 12.5       59     9.5       53      6.3       45     4.75       40     2.36       34
PFC     2      32    1.18       25      0.6       15    0.425       11      0.3        9
PFC 0.15        6   0.075        5
PF         21.893       1       50     37.5       98       25       98       19       92
PFC 12.5       83     9.5       77      6.3       68     4.75       63     2.36       51
PFC     2      46    1.18       27      0.6       10    0.425        5      0.3        3
PFC 0.15        1   0.075        1
PF         22.462       1     62.5     37.5       91       25       83       19       78
PFC 12.5       73     9.5       68      6.3       62     4.75       58     2.36       48
PFC     2      45    1.18       32      0.6       15    0.425        7      0.3        3
PFC 0.15        0   0.075        0
PF         23.409       1     62.5     37.5       91       25       83       19       75
PFC 12.5       66     9.5       61      6.3       54     4.75       51     2.36       44
PFC     2      42    1.18       32      1.6       18    0.425       11      0.3        6
PFC 0.15        2   0.075        2
PF         24.543       1     62.5     37.5       84       25       76       19       70
PFC 12.5       64     9.5       60      6.3       54     4.75       52     2.36       47
PFC     2      45    1.18       36      0.6       21    0.425       13      0.3        9
PFC 0.15        4   0.075        2
PF         25.666       1       50     37.5       97       25       88       19       81
PFC 12.5       74     9.5       69      6.3       64     4.75       61     2.36       54
F       2      52    1.18       43      0.6       21    0.425        8      0.3        3
.     .15       2   0.075        1
PF         25.860       1     37.5       25       98       19       96     12.5       91
PFC  9.5       87     6.3       80     4.75       74     2.36       56        2       46
PFC 1.18       27     0.6        7    0.425        3      0.3        2     0.15        2
PFC0.075        1
PF         26.290       1       19      9.5       98      6.3       97     4.75       92
PFC 2.36       84       2       80     1.18       22      0.6       18    0.425        6
PFC  0.3        3    0.15        2    0.075        2
PF         26.730       1       50     37.5       96       25       93       19       92
PFC 12.5       88     9.5       84      6.3       80     4.75       77     2.36       67
PFC     2      62    1.18       39      0.6       14    0.425        9      0.3        7
PFC 0.15        6   0.075        6
PF         27.680       1       50     37.5       99       25       97       19       92
PFC 12.5       88     9.5       85      6.3       78     4.75       73     2.36       61
PFC     2      56    1.18       34      0.6       10    0.425        5      0.3        3
PFC 0.15        3   0.075        3
PF         30.070       1       50     37.5       97       25       88       19       84
PFC 12.5       73     9.5       67      6.3       55     4.75       53     2.36       43
PFC     2      40    1.18       31      0.6       21    0.425       17      0.3       14
PFC 0.15       11   0.075        9
PF         30.820       1     37.5       25       99       19       97     12.5       95
PFC  9.5       94     6.3       90     4.75       89     2.36       86        2       85
PFC 1.18       76     0.6       61    0.425       50      0.3       35     0.15       11
PFC0.075        4
PF         31.860       1     37.5       25       94       19       92     12.5       91
PFC  8.5       90     6.3       89     4.75       88     2.36       88        2       88
PFC 1.18       86     0.6       74    0.425       60      0.3       43     0.15       17
PFC0.075        8
PF         32.430       1    32.64     2.36       99        2       98     1.18       95
PFC  0.6       84   0.425       69      0.3       52     0.15       25    0.075       12
PF         32.998       1     62.5     37.5       97       25       91       19       84
PFC 12.5       74     9.5       67      6.3       57     4.75       51     2.36       40
PFC     2      37    1.18       27      0.6       18    0.425       14      0.3       12
PFC 0.15       10   0.075        7
$LOCAL
              0.1     1000     5000    10000    25000
              0.1     1094     6855    16015    51300
LF   VFS 0.28256 0.28256 0.25945 0.28352 0.27310
LFL   FS 0.43291 0.43291 0.40442 0.37836 0.39708
LFL   MS 0.14372 0.14372 0.16223 0.16477 0.16029
LFL   CS 0.10623 0.10623 0.11610 0.11564 0.11399
LFL  VCS 0.03200 0.03200 0.04974 0.04723 0.34616
LFL  VFG 0.00126 0.00126 0.00559 0.00589 0.00464
LFL   FG 0.00076 0.00076 0.00197 0.00380 0.00293
```

```
LFL   MG 0.00056 0.00056 0.00028 0.00067 0.00050
LFL   CG 0.00000 0.00000 0.00022 0.00012 0.00011
LFL  VCG 0.00000 0.00000 0.00000 0.00000 0.00000
$HYD
$     NG
R              12    5000    5000          912.55  913.39   913.9  914.53   914.9
RC         915.38   915.8  916.05   916.3  916.70   917.0  917.24
         ***********RUN 30 DAYS OF 9,000 CFS ***********************
*   AB  TIME STEP NO 1
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 2
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 3
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 4
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 5
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 6
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 7
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 8
Q   9000
T     60
X           0.01       1
    B  TIME STEP NO 9
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 10
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 11
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 12
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 13
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 14
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 15
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 16
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO  17
Q   9000
T     60
X           0.01       1
    B  TIME STEP NO 18
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 19
Q   9000
T     60
X           0.01       1
```

```
*   AB  TIME STEP NO 20
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 21
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 22
Q   9000
T     60
X           0.01       1
*   AB TIME STEP NO 23
Q   9000
T     60
X           0.01       1
*   AB  TIM STEP NO  24
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 25
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 26
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 27
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 28
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 29
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 30
Q   9000
T     60
X           0.01       1
    $DREDGEB
    $NODREDGE
       -----100-YEAR HYDROGRAPH------
*   AB  TIME STEP NO 31
Q   9000     100
T     60      60
X          0.005    0.06
*       TIME STEP NO 32
Q   9000     100
W   0.01
*   AB  TIME STEP NO 33
Q   9000     800
X         0.0001    0.08
*       TIME STEP NO 34
Q   9000     800
W   0.01
*   AB  TIME STEP NO 35
Q  18000    7000
X           0.01    0.04
*       TIME STEP NO 36
Q  18000    7000
W   0.01
*   AB  TIME STEP NO 37
Q  36000   17000
X           0.01    0.06
*       TIME STEP NO 38
Q  36000   17000
W   0.01
*   AB  TIME STEP NO 39
Q  44000   20000
X           0.01    0.04
*       TIME STEP NO 40
     000   20000
W   0.01
*   AB  TIME STEP NO 41
Q  54000   24000
X           0.01    0.04
*       TIME STEP NO 42
Q  54000   24000
W   0.01
```

```
*   AB  TIME STEP NO 43
Q  52000   22000
X           0.01    0.04
*       TIME STEP NO 44
Q     00   22000
W    .01
*   AB  TIME STEP NO 45
Q  44000   18000
X           0.01    0.04
*       TIME STEP NO 46
Q  44000   18000
W   0.01
*   AB  TIME STEP NO 47
Q  30000   12000
X           0.01    0.06
*       TIME STEP NO 48
Q  30000   12000
W   0.01
*   AB  TIME STEP NO 49
Q  20000    8000
X          0.001    0.06
*       TIME STEP NO 50
Q  20000    8000
W   0.01
*   AB  TIME STEP NO 51
Q   9000    4000
X          0.001    0.13
*       TIME STEP NO 52
Q   9000    4000
W   0.01
*   AB  TIME STEP NO 53
Q   5500     500
X           0.01    0.33
*       TIME STEP NO 54
Q   5500     500
W   0.01
$$END
```

EXHIBIT G

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

```
T1      KIMLEY-HORN AND ASSOCIATES, INC. (KHA PROJECT NO. 091131004) EICHINGER
T2      AGUA FRIA RIVER, GILA RIVER TO NEW WADDELL DAM SEDIMENT TREND ANALYSIS
T3      100-YEAR EVENT SAND AND GRAVEL MODEL - SGM1-50.dat JULY 25 2001
     ****************************************************************************
     FULL SAND AND GRAVEL BASE MODEL WITH DREDGING TEMPLATES
    ****************************************************************************
     THIS SGM1.dat MODEL IS BASED ON SGBASE50.DAT WHICH IS THE EXISTING CONDITIONS
     MODEL OF THE AGUA FRIA RIVER DATED JULY 25, 2001
    ****************************************************************************
      ADDED DREGDING TEMPLATES TO SAND AND GRAVEL MINES ON HD RECORDS
      THIS MODEL DREDGING OCCURS AFTER TIME STEP NO. 30 OF THE 30-DAY 9,000 CFS
      DISCHARGE
    ****************************************************************************
      50% SEDIMENT INFLOW FOR AGUA FRIA RIVER
    ****************************************************************************
NC 0.045   0.064   0.035      .1      .3
X1  0.16      52    9720   10184       0       0       0
X3    10
GR 924.4  4925.0   924.2  5199.0   921.8  5600.0   919.5  5760.0   919.4  5959.0
GR 920.9  6245.0   920.8  6516.0   919.3  6554.0   919.8  6850.0   919.6  7271.0
GR 920.5  7535.0   919.6  8000.0   917.6  8136.0   917.4  8339.0   912.3  8356.0
GR 917.2  8376.0   916.4  8991.0   916.0  9030.0   914.0  9212.0   911.6  9231.0
GR 913.2  9494.0   911.2  9620.0   911.8  9720.0   910.7 10000.0   909.7 10120.0
GR 909.6 10136.    913.7 10167.0   913.7 10184.0   913.7 10213.0   913.7 10477.0
GR 917.1 10590.    916.6 10873.0   910.5 10909.0   910.5 11042.0   915.2 11068.0
GR 912.1 11265.    911.5 11500.0   911.5 11516.0   908.3 11664.0   910.4 11830.0
GR 916.1 11911.    914.1 12098.0   914.9 12628.0   922.1 12652.0   922.7 12725.0
GR 916.5 12758.    916.8 13671.0   916.2 14363.0   917.2 14971.0   917.8 15391.0
GR 913.5 15403.    920.3 15459.0
HD  0.16      10    8200   12250
NC 0.045    0.10   0.035
X1  0.44    44.0    9798   10420    1510    1465    1485
X3    10
GR 927.5  3107.0   925.0  4575.0   922.8  5984.0   921.8  6974.0   920.3  7816.0
GR 923.1  7847.0   923.3  7915.0   919.1  7942.0   919.1  7995.0   923.7  8029.0
GR 919.5  8152.0   918.5  8300.0   916.2  8640.0   915.1  8999.0   916.8  9023.0
GR 916.7  9710.0   916.7  9798.0   913.9  9815.0   913.5  9842.0   912.8 10000.0
GR 917.6 10016.0   916.8 10120.0   916.2 10201.0   917.0 10263.0   917.7 10313.0
GR 917.7 10385.0   917.7 10420.0   917.7 10455.0   917.8 11076.0   920.3 11103.0
G   6.9 11133.0   916.4 11365.0   919.1 11391.0   918.7 12229.0   918.8 12650.0
G  20.6 12691.0   919.8 12785.0   919.6 13644.0   920.2 14200.0   920.4 14355.0
GR 921.0   16110   921.8   16630   922.9   17240   924.0   17640
HD  0.44      10    8100   12750
NC 0.048   0.074   0.035
X1  0.63    36.0    9888   10209    1055     985    1010
X3                         6600     925   16200     925
GR 927.8  3220.0   928.7  4462.0   927.0  5328.0   924.8  6127.0   923.4  6520.0
GR 925.1  6530.0   925.1  6553.0   917.7  6571.0   926.5  6600.0   923.7  6645.0
GR 923.1  7426.0   922.5  8068.0   921.2  8670.0   921.1  8772.0   917.5  8831.0
GR 920.1  9149.0   920.4  9522.0   919.9  9740.0   919.6  9888.0   915.7  9908.0
GR 916.1 10000.0   916.0 10095.0   929.0 10209.0   917.1 10273.0   916.6 10424.0
GR 919.7 10448.0   920.7 10644.0   926.6 10667.0   919.1 10704.0   921.3 11646.0
GR 921.5 12511.0   921.7 13595.0   921.7 14582.0   923.3   15500   923.8   15950
GR 925.0   16200
HD  0.63      10    8270   12400
NC 0.050   0.066   0.035
X1  0.73    39.0    9917   10162     510     490     500
X3    10
GR 926.5  3285.0   926.3  3986.0   925.6  4737.0   925.2  5415.0   925.6  5760.0
GR 925.6  5797.0   925.7  5889.0   925.7  5945.0   924.5  6306.0   924.5  7206.0
GR 924.3  8340.0   921.6  8530.0   921.3  8800.0   921.1  8982.0   919.1  8999.0
GR 918.6  9126.0   921.0  9195.0   920.8  9760.0   920.0  9917.0   917.8  9927.0
GR 917.9 10000.0   916.9 10087.0   919.0 10100.0   919.3 10162.0   919.2 10205.0
GR 917.0 10479.0   919.8 10521.0   918.9 10591.0   919.2 10655.0   919.2 10697.0
GR 919.2 10771.0   922.2 10794.0   921.6 11725.0   922.6 11783.0   924.5 12394.0
GR 924.5 13563.0   924.0   14000   924.3   15050   926.0   15560
HD  0.73      10    8200   12400
      ******************************************************
      ************BEGIN BROADWAY 1W AND 1E********************
NC 0.045    0.07   0.035
X1  1.01    35.0    9682   10471    1380    1375    1375
X3    10
GR 928.9  4205.0   928.5  5661.0   929.2  6721.0   928.4  7602.0   928.7  8490.0
GR 928.7  8566.0   928.2  8695.0   928.3  8740.0   928.5  9048.0   928.6  9151.0
G  28.8  9185.0   922.0  9235.0   921.8  9300.0   921.4  9400.0   924.5  9437.0
   4.9  9682.0   921.5 10000.0   921.2 10380.0   921.2 10405.0   924.0 10471.0
G  24.0 10505.    924.0 10677.0   924.0 10694.0   924.0 10715.0   922.9 10733.0
GR 923.6 10830.    929.5 10849.0   924.2 10867.0   925.3 11259.0   930.4 11284.0
GR 930.4 11298.    924.4 11319.0   924.6 12194.0   929.7   13800   932.0   14000
HD  1.01      10    9300   10800             912   10400   10750
NC 0.045   0.077   0.035
X1  1.10    37.0    9719   10678     500     470     490
X3    10
GR 929.3  6000.0   930.4  6858.0   929.4  7741.0   929.3  8585.0   929.3  8600.0
```

```
GR 929.6  8801.0   928.2  9000.0   931.4  9071.0   919.5  9267.0   920.8  9325.0
GR 923.6  9368.0   924.3  9660.0   923.6  9700.0   923.2  9719.0   922.5 10000.0
GR 923.1 10141.0   923.0 10171.0   923.0 10387.0   923.0 10419.0   923.0 10556.0
G  23.0 10595.0   925.5 10678.0   925.5 10729.0   924.0 10913.0   924.0 10941.0
(    4.0 10966.0   924.7 11005.0   927.9 11017.0   927.9 11033.0   924.6 11128.0
Gk 929.4 11150.0   925.5 11188.0   925.5 11400.0   925.6 11660.0   926.3 12105.0
GR 928.0   13150   930.3   13600
HD  1.10      10    9200   11033             912   10050   11300
NC 0.045   0.069   0.035
X1  1.17    25.0    9917   10654     560     490     540
X3    10
GR 932.2  6215.0   929.9  7229.0   929.9  7805.0   929.7  8500.0   929.7  8639.0
GR 926.5  8784.0   927.1  9032.0   928.5  9439.0   926.8  9778.0   927.2  9917.0
GR 923.7  9929.0   923.6  9940.0   924.3 10000.0   923.6 10113.0   924.3 10142.0
GR 924.3 10608.0   926.6 10620.0   926.6 10654.0   924.0 10704.0   927.0 11220.0
GR 927.3 11266.0   926.6 11765.0   926.8 12280.0   930.3   13060   934.0   13150
HD  1.17      15    8790   11200             912   10050   10650
NC 0.045   0.069   0.035
X1  1.25    24.0    9974   10742     480     490     485
X3    10
GR 933.2  6235.0   931.2  6887.0   932.2  8114.0   932.2  8340.0   932.2  8429.0
GR 927.9  8531.0   930.3  8831.0   927.5  9204.0   930.3  9306.0   929.1  9974.0
GR 926.2  9990.0   924.4 10000.0   924.4 10533.0   924.4 10571.0   924.4 10594.0
GR 924.4 10702.0   929.8 10742.0   930.1 11083.0   929.4 11240.0   928.7 11410.0
GR 928.5 12013.0   930.4 12109.0   936.0   12500   940.0   13000
HD  1.25      15    8400   11100             912    9920   10520
  ************END BROADWAY 1W AND 1E********************
  ****************************************************
NC 0.045   0.050   0.035
X1  1.33    32.0    9911   10456     485     500     495
X3    10
GR 934.6  6000.0   933.3  6025.0   932.9  6490.0   931.0  6748.0   931.3  7154.0
GR 931.8  7239.0   933.2  7837.0   934.0  8038.0   931.1  8083.0   930.0  8120.0
GR 929.8  8339.0   931.4  8777.0   929.3  8916.0   931.1  8945.0   929.8  9282.0
GR 929.1  9911.0   927.0  9920.0   927.0 10000.0   925.9 10122.0   925.5 10364.0
GR 925.5 10456.0   925.5 10490.0   931.1 10701.0   931.6 11006.0   930.6 11200.0
GR 930.4 11242.0   934.9 11261.0   931.9 11306.0   933.2 11377.0   934.8 11409.0
GR 936.3 12061.0   941.3 12490.0
HD  1.33      10    8000   10456
N    045    0.05   0.035
X    .71      44    9091 10284.4    2000    2585    2480
X3    10
GR 940.9  5684.9   943.3  5808.0   945.3  6004.6   945.1  6078.9   947.4  6100.1
GR 947.4  6117.9   939.1  6148.7   948.7  6187.8   948.6  6226.4   934.0  6296.9
GR 936.8  6795.4   942.6  6807.8   942.6  6816.3   935.2  6833.2   933.6  7016.1
GR 935.7  7029.0   935.7  7052.6   932.4  7065.5   932.0  7135.0   934.3  7164.7
GR 934.3  7198.3   931.9  7209.5   934.6  7333.9   933.3  7541.5   933.4  7601.4
GR 936.1  7704.9   936.0  8010.3   935.3  8305.9   935.8  8591.1   935.4  8888.0
GR 935.8  9091.0   933.0  9104.6   933.1  9230.9   931.1  9247.7   929.7  9534.8
GR 928.2  9542.9   928.2  9966.4   928.2 10000.0   930.4 10058.7   930.5 10277.8
GR 935.9 10284.4   941.2 10511.3   951.5 11351.7   952.3 11442.6
HD  1.71      10    9091 10284.4
X1  2.02      31  8839.4 10077.3     890    2065    1965
X3    10
GR 950.0  5981.1   948.6  6066.6   951.6  6121.6   954.7  6293.7   955.1  6434.3
GR 940.7  6514.7   939.9  6533.9   937.1  6557.3   936.4  6934.6   937.1  7244.1
GR 944.6  7260.1   944.6  7278.4   937.0  7304.1   936.3  7340.1   938.6  7388.3
GR 938.4  7687.8   936.3  7711.0   938.5  7824.6   938.8  7961.0   937.2  8390.4
GR 938.4  8544.9   938.1  8839.4   935.2  8854.5   935.2  9121.5   935.4  9418.2
GR 934.2  9860.0   932.7  9918.6   933.3 10000.0   934.5 10062.4   944.8 10077.3
GR 944.8 10079.1
HD  2.02      10    8000   10070
NC   .04     .04    .035
X1  2.60      26    9437   10850    2700    2945    3320
X3    10
GR 967.1    7292   967.4  7442.4   961.7  7739.8   957.5  7927.3   953.0  8217.8
GR 947.7  8560.5   944.7  8730.1   944.9  9057.3   944.8  9437.0   940.5  9449.9
GR 941.9  9684.7   939.6  9951.4   939.6 10000.0   939.6 10090.3   941.7 10102.7
GR 943.1 10322.7   940.5 10500.3   946.6 10580.6   946.6 10625.8   945.8 10652.9
GR 942.2 10671.4   943.4 10811.0   943.6 10850.0   944.8 11140.9   954.6 11152.0
GR 954.6   11164
HD  2.60      10    9437   10850
X1  2.80      19    9200   11222    1250     655    1000
X3    10
GR 956.4  8817.0   952.8  8856.3   944.9  9060.9   943.4    9200   943.2  9214.4
G   .5  9447.6   942.0 10000.0   943.9 10091.2   943.9 10170.9   942.8 10185.3
G   3.0 10439.2   945.6 10464.6   945.8 10582.0   943.7 10628.0   945.8 10774.1
GR 945.7 10820.4   942.3 10890.9   945.9 11203.4   956.6   11222
HD  2.80      10    9150   10850
X1  3.27      17  9692.6 11130.5    2800    1995    2505
X3    10
GR 961.5  7808.3   958.3  8137.4   956.3  8362.4   953.4  9316.6   950.7  9692.6
GR 945.5  9724.1   944.5  9770.5   944.8 10000.0   944.8 10158.6   951.4 10188.1
GR 947.8 10278.9   948.5 10405.5   944.5 10606.9   944.5 10822.2   945.7 10915.2
```

```
GR 948.5 11116.0   960.5 11130.5
HD  3.27      10    9300 11130.5
X1  3.37      17  9716.5 10970.3     585     460     510
X     10
C    1.6  7874.4   957.2  8296.6   954.5  8930.2   950.8  9667.0   950.9  9716.5
GR 945.1  9738.3   945.1 10000.0   945.5 10237.8   948.9 10256.9   946.7 10280.2
GR 945.1 10477.2   945.1 10515.3   945.6 10619.0   943.4 10669.0   950.7 10741.4
GR 949.3 10945.1   961.9 10970.3
HD  3.37      10    9500 10970.3
X1  3.43      12  9758.5 10873.4     925     795     850
X3    10
GR 961.5  7958.9   957.8  8287.1   956.3  8796.5   955.8  9654.5   953.0  9684.2
GR 952.8  9758.5   946.2  9788.6   946.0 10000.0   946.0 10271.7   951.1 10293.1
GR 951.1 10849.9   963.7 10873.4
HD  3.43      10    9650 10873.4
X1 3.729     6.0    9420   10603    1575    1585    1580
X3    10
GR 972.0    9405     968    9420   952.2    9425   952.2   10588   967.2   10603
GR 967.2   10613
HD 3.729      10    9420   10603
NC                        0.3     0.5
X1 3.734    63.0  9400.9 10599.3      25      25      25
X3    10
GR 972.4  9400.8   967.5  9400.9   952.3  9416.0   952.3  9422.1   952.3  9474.5
GR 952.3  9474.6   952.3  9481.6   952.3  9481.7   952.3  9554.7   952.3  9554.8
GR 952.3  9561.8   952.3  9561.9   952.3  9634.6   952.3  9634.7   952.3  9641.7
GR 952.3  9641.8   952.3  9714.5   952.3  9714.6   952.3  9721.6   952.3  9721.7
GR 952.3  9794.7   952.3  9794.8   952.3  9801.8   952.3  9801.9   952.3  9874.9
GR 952.3  9875.0   952.3  9882.0   952.3  9882.1   952.3  9955.1   952.3  9955.2
GR 952.3  9962.2   952.3  9962.3   952.3 10034.9   952.3 10035.0   952.3 10042.0
GR 952.3 10042.1   952.3 10115.1   952.3 10115.2   952.3 10122.2   952.3 10122.3
GR 952.3 10194.8   952.3 10194.9   952.3 10201.9   952.3 10202.0   952.3 10275.0
GR 952.3 10275.1   952.3 10282.1   952.3 10282.2   952.3 10355.2   952.3 10355.3
GR 952.3 10362.3   952.3 10362.4   952.3 10434.9   952.3 10435.0   952.3 10442.0
GR 952.3 10442.1   952.3 10515.1   952.3 10515.2   952.3 10522.2   952.3 10522.3
GR 952.3 10585.2   967.6 10599.3   971.1 10599.4
HD 3.734      10  9400.9 10599.3
X1 3.757     7.0    9425   10555     120     120     120
X3    10
C    8.3  9400.0   966.5  9425.0   952.3  9454.0   952.4  9708.0   952.1 10000.0
G    2.1 10538.0   967.7 10555.0
HD 3.757      10    9425   10555
X1 3.767      92  9428.1 10572.0      50      50      50
X3    10
GR 970.9  9428.0   966.9  9428.1   952.9  9457.5   952.9  9457.6   952.9  9460.6
GR 952.9  9460.7   952.9  9492.4   952.9  9492.5   952.9  9498.5   952.9  9498.6
GR 952.9  9510.4   952.9  9510.5   952.9  9513.5   952.9  9513.6   952.9  9525.5
GR 952.9  9525.6   952.9  9528.6   952.9  9528.7   952.9  9540.4   952.9  9540.5
GR 952.9  9543.5   952.9  9543.6   952.9  9555.4   952.9  9555.5   952.9  9558.5
GR 952.9  9558.6   952.9  9570.4   952.9  9570.5   952.9  9573.5   952.9  9573.6
GR 952.9  9585.4   952.9  9585.5   952.9  9588.5   952.9  9588.6   952.9  9600.4
GR 952.9  9600.5   952.9  9625.0   952.9  9625.1   952.9  9761.9   966.1  9762.0
GR 966.1  9778.0   952.9  9778.1   952.9  9915.0   966.1  9915.1   966.1  9931.1
GR 952.9  9931.2   952.9 10068.9   966.1 10069.0   966.1 10085.0   952.9 10085.1
GR 952.9 10220.9   966.1 10221.0   966.1 10237.0   952.9 10237.1   952.9 10374.9
GR 952.9 10375.0   952.9 10400.2   952.9 10400.3   952.9 10410.9   952.9 10411.0
GR 952.9 10414.9   952.9 10415.0   952.9 10426.9   952.9 10427.0   952.9 10430.0
GR 952.9 10430.1   952.9 10441.8   952.9 10441.9   952.9 10444.9   952.9 10445.0
GR 952.9 10456.9   952.9 10457.0   952.9 10460.0   952.9 10460.1   952.9 10472.0
GR 952.9 10472.1   952.9 10475.1   952.9 10475.2   952.9 10486.9   952.9 10487.0
GR 952.9 10490.0   952.9 10490.1   952.9 10501.9   952.9 10502.0   952.9 10508.9
GR 952.9 10509.0   952.9 10540.8   952.9 10540.9   952.9 10543.9   952.9 10544.0
GR 967.2 10571.9   970.9 10572.0
HD 3.767      10  9428.1   10572
NC  0.04    0.04    0.03     0.1     0.3
            ------GRADE CONTROL U/S BUCKEYE ROAD--------
X1 4.092     7.0    9440   10578    1760    1750    1755
X3    10
GR 973.3  9440.0   955.2  9465.0   955.2  9757.0   955.2 10000.0   955.2 10558.0
GR 973.0 10578.0   973.0 10582.0
HD 4.092      0    9440   10578
X1 4.094     7.0    9440   10578      10      10      10
X3    10
GR 973.3  9440.0   958.5  9465.0   958.5  9757.0   958.5 10000.0   958.5 10558.0
GR 973.0 10578.0   973.0 10582.0
HD 4.094      0    9440   10578
X1 4.30      7.0    9458   10594    1040    1040    1040
X3    10
GR 974.8  9458.0   959.6  9475.0   958.7  9760.0   957.6 10000.0   958.6 10293.0
GR 961.1 10573.0   974.9 10594.0
HD  4.30     10    9480   10570
X1  4.70     9.0    9451   10579    2205    2065    2135
X3    10
GR 978.4  9440.0   978.4  9451.0   961.5  9467.0   960.2  9774.0   959.1 10000.0
```

```
GR 961.1 10353.0   962.8 10562.0   978.8 10579.0   978.9 10595.0
HD  4.70      10    9451   10579
X1 4.754    53.0  9402.5 10572.3     150     310     225
      10
                        9402.5 10572.3
GR 973.0  7150.0   972.7  8115.0   973.6  8831.0   984.3  9296.0   988.1  9402.5
GR 988.1  9427.7   980.6  9427.8   960.3  9445.8   960.3  9525.5   960.3  9525.6
GR 960.3  9537.6   960.3  9537.7   960.3  9641.5   960.3  9641.6   960.3  9653.6
GR 960.3  9653.7   960.3  9757.4   960.3  9757.5   960.3  9769.5   960.3  9769.6
GR 960.3  9873.4   960.3  9873.5   960.3  9885.5   960.3  9885.6   960.3  9997.8
GR 960.3  9997.9   960.3 10009.9   960.3   10010   960.3 10105.8   960.3 10105.9
GR 960.3 10117.9   960.3 10118.0   960.3 10221.3   960.3 10221.4   960.3 10233.4
GR 960.3 10233.5   960.3 10337.9   960.3 10338.0   960.3 10349.0   960.3 10349.1
GR 960.3 10453.5   960.3 10453.6   960.3 10465.6   960.3 10465.7   960.3 10555.9
GR 981.2 10572.3   988.7 10572.4   988.7 10597.0   987.2 10612.0   978.1 11023.0
GR 978.7 11497.0   980.6 12014.0   982.4 12466.0
HD 4.754      10  9402.5 10572.3
X1  4.79     6.0    9440   10590     357     187     277
GR 980.2  9440.0   964.0  9466.0   961.1 10000.0   964.6 10568.0   980.8 10590.0
GR 980.8 10600.0
HD  4.79      10    9440   10590
X1  5.15     9.0    9291   10713    1780    1960    1873
GR 986.0  9275.0   986.0  9291.0   969.9  9310.0   968.1  9678.0   967.4 10000.0
GR 968.7 10469.0   968.9 10691.0   986.0 10713.0   986.0 10720.0
HD  5.15      10    9291   10590
          ------------GRADE CONTROL STRUCTURE DOWNSTREAM OF I-10-------
X1 5.201     9.0    9291   10713     180     360     270
GR 987.0  9275.0   987.0  9291.0   969.1  9310.0   969.1  9678.0   969.1 10000.0
GR 969.1 10469.0   969.1 10691.0   987.0 10713.0   987.0 10720.0
HD 5.201       0    9291   10713
X1 5.203     9.0    9291   10713      10      10      10
GR 987.0  9275.0   987.0  9291.0   970.0  9310.0   970.0  9678.0   970.0 10000.0
GR 970.0 10469.0   970.0 10691.0   987.0 10713.0   987.0 10720.0
HD 5.203       0    9291   10713
X1 5.290      82  9250.8 10672.4     505     675     585
GR 994.5  9250.7   986.4  9250.8   971.5  9277.5   971.5  9318.7   971.5  9318.8
GR 971.5  9323.4   971.5  9323.5   971.5  9389.9   971.5  9390.0   971.5  9394.5
GR 971.5  9394.6   971.5  9460.9   971.5  9461.0   971.5  9465.6   971.5  9465.7
G  971.5  9532.1   971.5  9532.2   971.5  9536.8   971.5  9536.9   971.5  9603.3
    71.5  9603.4   971.5  9608.0   971.5  9608.1   971.5  9674.5   971.5  9674.6
  971.5  9679.2   971.5  9679.3   971.5  9745.7   971.5  9745.8   971.5  9750.4
GR 971.5  9750.5   971.5  9816.9   971.5  9817.0   971.5  9821.6   971.5  9821.7
GR 971.5  9888.1   971.5  9888.2   971.5  9892.8   971.5  9892.9   971.5  9959.3
GR 971.5  9959.4   971.5  9964.0   971.5  9964.1   971.5 10030.0   971.5 10030.1
GR 971.5 10034.7   971.5 10034.8   971.5 10101.2   971.5 10101.3   971.5 10105.9
GR 971.5 10106.0   971.5 10172.3   971.5 10172.4   971.5 10177.0   971.5 10177.1
GR 971.5 10243.7   971.5 10243.8   971.5 10248.4   971.5 10248.5   971.5 10314.9
GR 971.5 10315.0   971.5 10319.6   971.5 10319.7   971.5 10386.0   971.5 10386.1
GR 971.5 10390.7   971.5 10390.8   971.5 10457.2   971.5 10457.3   971.5 10461.9
GR 971.5 10462.0   971.5 10528.4   971.5 10528.5   971.5 10533.0   971.5 10533.1
GR 971.5 10599.5   971.5 10599.6   971.5 10604.2   971.5 10604.3   971.5 10645.5
GR 989.4 10672.3   997.7 10672.4
HD 5.290      10  9250.8 10672.4
X1 5.380    20.0  9266.0 10656.0     305     645     465
GR 993.0  9214.0   987.7  9266.0   985.7  9342.0   972.8  9358.0   972.3  9413.0
GR 972.2  9565.0   972.2  9734.0   972.2  9889.0   972.2  9994.0   971.4 10000.0
GR 971.4 10062.0   971.4 10195.0   974.3 10208.0   974.2 10263.0   974.2 10420.0
GR 974.2 10582.0   974.2 10639.0   988.4 10656.0   988.6 10671.0   982.3 10702.0
HD 5.380      10    9266   10656
          ----------MCDOWELL ROAD------
X1 5.689      42  9371.3 10552.8    1320    1740    1620
GR 996.9  9371.2   990.8  9371.3  973.85  9399.5  973.85  9488.7  973.85  9488.8
GR973.85  9496.2  973.85  9496.3  973.85  9606.6  973.85  9606.7  973.85  9614.1
GR973.85  9614.2  973.85  9725.8  973.85  9725.9  973.85  9733.3  973.85  9733.4
GR973.85  9843.3  973.85  9843.4  973.85  9850.8  973.85  9850.9  973.85  9961.3
GR973.85  9961.4  973.85  9968.8  973.85  9968.9  973.85 10078.9  973.85 10079.0
GR973.85 10086.4  973.85 10086.5  973.85 10196.2  973.85 10196.3  973.85 10203.7
GR973.85 10203.8  973.85 10314.4  973.85 10314.5  973.85 10321.9  973.85 10322.0
GR973.85 10432.1  973.85 10432.2  973.85 10439.6  973.85 10439.7  973.85 10524.6
GR 990.8 10552.8   996.9 10552.9
HD 5.689      10  9371.3 10552.8
X1 5.750    22.0  9426.0 10579.0     370     370     370
GR 990.7  9287.0   990.7  9295.0   985.9  9330.0   983.9  9362.0   985.6  9388.0
GR 990.1  9416.0   990.3  9426.0   975.3  9477.0   975.3  9595.0   975.5  9715.0
G  `75.5  9864.0   975.5  9981.0   974.0  9994.0   973.7 10030.0   973.7 10095.0
    73.7 10244.0   975.6 10259.0   975.6 10349.0   975.7 10474.0   975.7 10565.0
G. 989.2 10579.0   989.6 10596.0
HD 5.750      10    9426   10579
X1 5.900    17.0  9429.0 10561.0     945     950     950
GR 993.0  9414.0   993.0  9429.0   977.5  9447.0   977.5  9506.0   977.5  9598.0
GR 977.5  9714.0   977.6  9829.0   977.4  9946.0   975.4  9958.0   975.5 10040.0
GR 975.5 10099.0   975.5 10230.0   977.4 10257.0   977.6 10344.0   977.6 10459.0
GR 977.6 10544.0   991.1 10561.0
HD 5.900   10       9429   10561
```

```
         -------GRADE CONTOL STRUCTURE UPSTREAM OF MCDOWELL-------
X1 6.068     15.0  9416.0 10545.0      907      897      902
GR 992.7  9416.0    979.3  9431.0    979.3  9490.0    979.2  9585.0    979.2  9712.0
(    79.0  9831.0    978.7  9925.0    976.7  9971.0    976.7 10000.0    976.7 10114.0
\    76.7 10208.0    977.8 10260.0    978.4 10376.0    978.6 10528.0    992.4 10545.0
HD 6.068        0  9416.0 10545.0
X1 6.070     15.0  9416.0 10545.0        8        8        8
GR 992.7  9416.0    979.3  9431.0    979.3  9490.0    979.2  9585.0    979.2  9712.0
GR 979.0  9831.0    978.7  9925.0    976.7  9971.0    976.7 10000.0    976.7 10114.0
GR 976.7 10208.0    977.8 10260.0    978.4 10376.0    978.6 10528.0    992.4 10545.0
HD 6.070        0  9416.0 10545.0
X1 6.430     20.0  9452.0 10537.0     2045     1850     1945
GR 996.1  9390.0    991.8  9409.0    991.6  9433.0    996.5  9443.0    996.5  9452.0
GR 984.1  9467.0    984.0  9528.0    984.3  9631.0    984.3  9768.0    984.1  9894.0
GR 983.2  9980.0    981.0 10000.0    981.0 10057.0    981.3 10156.0    981.9 10213.0
GR 983.2 10232.0    983.2 10359.0    982.5 10519.0    996.1 10537.0    996.1 10550.0
HD 6.430       10     9452   10537
X1 6.820     17.0  9444.0 10573.0     2145     1820     1980
GR1002.7  9434.0   1002.7  9444.0    989.2  9465.0    987.3  9582.0    985.9  9607.0
GR 985.7  9745.0    985.9  9860.0    984.8  9990.0    984.8 10000.0    985.9 10065.0
GR 988.4 10076.0    988.4 10157.0    988.0 10268.0    988.0 10400.0    988.0 10557.0
GR1001.0 10573.0   1001.0 10591.0
HD 6.820       10     9444   10573
                                       357      357      357
          -------------GRADE CONTROL STRUCTURE D/S OF THOMAS RD-------------
X1 6.888     16.0  9439.0 10577.0      357      357      357
GR1004.2  9428.0   1004.2  9439.0    989.9  9461.0    989.9  9574.0    989.9  9700.0
GR 989.8  9818.0    989.4  9954.0    989.4  9973.0    989.4 10000.0    989.4 10039.0
GR 989.4 10132.0    989.4 10266.0    989.4 10427.0    989.4 10558.0   1002.7 10577.0
GR1002.7 10588.0
HD 6.888        0     9439   10577
X1 6.890     16.0  9439.0 10577.0        8        8        8
GR1004.2  9428.0   1004.2  9439.0    989.9  9461.0    989.9  9574.0    989.9  9700.0
GR 989.8  9818.0    989.4  9954.0    989.4  9973.0    989.4 10000.0    989.4 10039.0
GR 989.4 10132.0    989.4 10266.0    989.4 10427.0    989.4 10558.0   1002.7 10577.0
GR1002.7 10588.0
HD 6.890        0     9439   10577
X1 6.910     17.0  9430.0 10579.0      105      115      110
GR1002.8  9417.0   1002.8  9430.0    989.5  9452.0    989.9  9524.0    989.9  9677.0
(    9.9  9807.0    989.5  9970.0    989.5 10000.0    989.5 10018.0   1000.2 10037.0
(    0.2 10125.0    989.8 10142.0    989.8 10236.0    989.8 10390.0    989.8 10561.0
GR1002.7 10579.0   1002.7 10589.0
HD 6.910       10     9430   10579
X1 6.930     17.0  9413.0 10573.0      105      105      105
GR1004.8  9405.0   1004.8  9413.0    999.9  9417.0    999.9  9426.0    989.9  9442.0
GR 989.9  9572.0    989.9  9706.0    990.0  9833.0    990.1  9955.0    989.9 10000.0
GR 989.9 10053.0    989.9 10201.0    989.9 10359.0    990.1 10545.0    990.9 10558.0
GR1003.9 10573.0   1003.9 10582.0
HD 6.930       10     9413   10573
X1 6.990     19.0  9400.0 10559.0      315      355      335
GR1003.3  9393.0   1003.4  9400.0    997.4  9411.0    997.3  9418.0    991.4  9429.0
GR 991.4  9534.0    991.1  9695.0    991.1  9871.0    991.1 10000.0    991.1 10072.0
GR 991.2 10186.0    991.3 10300.0    998.4 10313.0    998.4 10323.0    998.4 10404.0
GR 990.2 10418.0    990.2 10540.0   1003.5 10559.0   1004.0 10574.0
HD 6.990       10     9400   10559
X1 7.490     13.0  9509.0 10525.0     2645     2610     2595
GR1009.5  9493.0   1009.5  9509.0    995.2  9526.0    995.4  9612.0    995.6  9736.0
GR 995.5  9871.0    995.3 10000.0    995.3 10064.0    995.4 10173.0    995.7 10289.0
GR 995.7 10474.0   1010.9 10525.0   1010.9 10541.0
HD 7.490       10     9509   10525
         -------GRADE CONTROL STRUCTURE DOWNSTREAM FACE OF INDIAN SCHOOL RD BRI
X1 7.988     37.0  9293.0 10732.0     2805     2480     2625
X3     10
GR1012.2  8010.0   1013.2  8065.0   1014.0  8150.0   1012.5  8436.0   1010.7  8709.0
GR1010.4  8948.0   1017.0  9058.0   1017.0  9110.0   1009.4  9176.0   1015.2  9236.0
GR1014.9  9293.0    999.2  9338.0    999.2  9550.0    999.1  9925.0    999.1  9990.0
GR 999.1 10000.0    999.1 10303.0    999.3 10681.0   1014.8 10732.0   1017.3 10907.0
GR1010.5 10932.0   1010.0 11152.0   1015.2 11167.0   1015.2 11213.0   1007.3 11242.0
GR1007.1 11529.0   1007.2 11773.0   1006.9 11957.0   1007.1 12138.0   1007.1 12341.0
GR1006.9 12504.0   1009.2 12604.0   1009.9 12677.0   1014.2 12703.0   1015.0 12810.0
GR1016.3 12943.0   1016.3 12959.0
HD 7.988        0  9293.0 10732.0
X1 7.990     37.0  9293.0 10732.0       10       10     10.5
X3     10
GR 12.2  8010.0   1013.2  8065.0   1014.0  8150.0   1012.5  8436.0   1010.7  8709.0
(    0.4  8948.0   1017.0  9058.0   1017.0  9110.0   1009.4  9176.0   1015.2  9236.0
G.  14.9  9293.0    999.2  9338.0    999.2  9550.0    999.1  9925.0    999.1  9990.0
GR 999.1 10000.0    999.1 10303.0    999.3 10681.0   1014.8 10732.0   1017.3 10907.0
GR1010.5 10932.0   1010.0 11152.0   1015.2 11167.0   1015.2 11213.0   1007.3 11242.0
GR1007.1 11529.0   1007.2 11773.0   1006.9 11957.0   1007.1 12138.0   1007.1 12341.0
GR1006.9 12504.0   1009.2 12604.0   1009.9 12677.0   1014.2 12703.0   1015.0 12810.0
GR1016.3 12943.0   1016.3 12959.0
HD 7.990        0  9293.0 10732.0
NC                              .3       .5
```

```
         ---------INDIAN SCHOOL ROAD------
X1 8.000      85  9235.5  10725.      50      50      50
X3    10
                          9235.5   10725
    14.4  7828.0  1015.5  8173.0  1016.3  8411.0  1017.9  8735.0  1018.7  9144.0
GR1018.6  9235.4  1013.3  9235.5   999.2  9263.1   999.2  9271.2   999.2  9271.3
GR 999.2  9285.3   999.2  9285.4   999.2  9362.9   999.2  9363.0   999.2  9377.0
GR 999.2  9377.1   999.2  9452.9   999.2  9453.0   999.2  9467.0   999.2  9467.1
GR 999.2  9542.9   999.2  9543.0   999.2  9557.0   999.2  9557.1   999.2  9632.9
GR 999.2  9633.0   999.2  9647.0   999.2  9647.1   999.2  9722.9   999.2  9723.0
GR 999.2  9737.0   999.2  9737.1   999.2  9812.9   999.2  9813.0   999.2  9827.0
GR 999.2  9827.1   999.2  9902.9   999.2  9903.0   999.2  9917.0   999.2  9917.1
GR 999.2  9992.9   999.2  9993.0   999.2 10007.0   999.2 10007.1   999.2 10082.9
GR 999.2 10083.0   999.2 10097.0   999.2 10097.1   999.2 10172.9   999.2 10173.0
GR 999.2 10187.0   999.2 10187.1   999.2 10262.9   999.2 10263.0   999.2 10277.0
GR 999.2 10277.1   999.2 10352.8   999.2 10352.9   999.2 10366.9   999.2 10367.0
GR 999.2 10442.9   999.2 10443.0   999.2 10457.0   999.2 10457.1   999.2 10532.9
GR 999.2 10533.0   999.2 10547.0   999.2 10547.1   999.2 10622.9   999.2 10623.0
GR 999.2 10637.0   999.2 10637.1   999.2 10697.5  1013.3 10725.0  1021.3 10725.1
GR1018.6 10725.2  1016.4 10735.0  1017.3 10914.0  1016.9 11234.0  1012.8 11759.0
GR1013.2 12195.0  1013.8 12510.0  1014.9 12742.0  1016.1 13028.0  1018.6 13458.0
HD 8.000      10  9235.5   10725
    ************* DOWNSTREAM LIMIT OF INDIAN SCHOOL 1-S *****************
    ********************************************************************
NC                          0.1     0.3
X1 8.105      91  9493.9 10978.6     405     745  522.59
X3    10
XL                         9400 10978.6
GR1015.2  8211.4  1015.3  8277.1  1010.8  8330.6  1009.3  8341.9  1009.3  8372.5
GR1011.2  8392.0  1011.2  8467.9  1009.9  8559.8  1009.8  8618.0  1009.3  8629.1
GR1008.8  8657.4  1008.1  8664.5  1006.7  8671.1  1005.9  8676.7  1005.3  8685.7
GR1008.0  8694.0  1007.4  8712.9  1007.2  8759.6  1007.6  8767.4  1007.3  8945.8
GR1007.7  8986.4  1007.0  9027.6  1006.6  9098.5  1006.1  9130.7  1007.5  9189.4
GR1011.7  9241.0  1013.1  9281.5  1014.3  9352.7  1015.1  9381.7  1004.4  9401.0
GR1002.0  9404.5  1002.1  9413.6  1000.7  9416.1  1000.8  9423.2  1002.3  9432.7
GR1001.8  9493.9  1001.9  9540.9  1001.0  9545.5  1000.9  9563.5  1001.1  9565.1
GR1001.5  9581.8  1002.2  9583.6  1002.9  9587.6  1002.8  9594.1  1003.1  9599.5
GR1004.8  9613.8  1002.9  9623.8  1001.5  9649.6  1002.2  9701.5  1001.6  9791.9
GR1002.5  9801.8  1002.6  9835.3  1001.6  9840.4  1001.1  9856.5  1003.0  9863.7
    01.8  9909.1  1002.1  9961.6  1002.0  9995.6  1001.0 10012.9  1000.7 10057.2
    00.8 10168.4  1000.5 10169.9  1002.7 10181.4  1003.2 10220.5  1002.5 10428.1
GR1001.9 10536.6  1002.1 10732.3  1001.6 10813.5  1001.7 10895.2  1000.8 10949.7
GR1001.5 10964.0  1001.4 10978.6  1001.3 10997.9  1001.1 11037.6  1000.5 11077.1
GR1001.9 11081.4  1003.0 11094.1  1002.0 11108.9  1001.7 11110.1  1005.8 11120.6
GR1010.4 11129.8  1008.8 11140.0  1008.9 11273.0  1008.4 11417.4  1009.5 11426.7
GR1008.8 11471.3  1010.6 11534.8  1011.0 11604.6  1010.7 11613.6  1009.8 11618.7
GR1009.6 11624.4
HD 8.105      10    9400 10978.6            1000    9650   10280
X1 8.198      92  9458.7 10971.0     420     620  490.43
X3                        9458.6    1010  109711    1010
XL                          9400   11100
GR1013.7  7538.8  1013.7  7659.7  1013.0  7679.9  1012.1  7681.9  1012.2  7702.4
GR1009.4  7704.2  1009.4  7707.5  1011.7  7718.2  1011.0  7757.7  1010.6  7818.7
GR1009.9  7842.6  1009.7  7956.3  1010.5  8028.5  1010.8  8229.1  1011.2  8250.2
GR1011.0  8283.7  1011.2  8445.3  1011.6  8447.8  1011.8  8453.3  1011.5  8465.8
GR1010.7  8469.4  1010.2  8484.3  1010.7  8495.1  1011.0  8542.9  1009.4  8558.4
GR1007.8  8568.0  1007.4  8575.1  1007.6  8611.0  1006.2  8674.1  1006.4  8788.0
GR1005.6  8837.3  1005.5  8883.8  1004.3  8938.3  1004.6  9047.4  1003.7  9102.0
GR1003.1  9193.7  1003.0  9320.6  1003.2  9389.6  1016.4  9413.0  1016.7  9455.0
GR1014.9  9458.7  1006.2  9474.2  1003.0  9479.0  1002.7  9484.7  1003.3  9489.8
GR1002.2  9512.1  1002.6  9529.9  1004.0  9536.6  1003.7  9541.4  1003.4  9592.1
GR1004.0  9620.4  1004.1  9647.5  1003.4  9715.0  1002.5  9730.9  1002.0  9756.6
GR1003.0  9851.4  1002.2  9972.1  1002.5  9983.7  1002.0 10053.3  1001.5 10071.8
GR1002.5 10093.2  1003.1 10143.0  1002.7 10193.2  1003.7 10230.0  1002.2 10240.8
GR1001.9 10266.0  1003.7 10292.6  1003.3 10497.1  1002.8 10629.5  1003.2 10847.7
GR1003.0 10958.7  1015.8 10971.0  1015.7 10984.6  1015.3 10990.1  1011.0 11007.3
GR1010.7 11051.4  1010.2 11065.9  1010.6 11074.9  1010.2 11120.5  1010.3 11154.3
GR1009.3 11167.8  1009.5 11177.5  1007.9 11194.6  1007.4 11229.6  1007.8 11253.3
GR1011.7 11279.9  1012.3 11327.5  1011.2 11391.5  1012.2 11447.8  1012.1 11502.4
GR1012.9 11568.6  1013.0 11705.6
HD 8.198      10  9458.7   10971            1000    9600   10500
NC  .040    .040    .035
   ------------Gravel Mine Between Camelback Road and Indian School----------
   **************DOWNSTREAM LIMIT OF INDIAN SCHOOL 2-S******************
   ********************************************************************
X    433      87  9583.1 10597.5    1155    1365 1241.36
X                         9009.5    1012   11000    1012
XL                          9000 10597.5
GR1016.6  5737.3  1015.2  5913.0  1011.2  5923.1  1011.2  5929.8  1015.2  5938.3
GR1013.0  6101.5  1013.1  6236.2  1012.0  6437.5  1011.5  6682.9  1010.8  6885.4
GR1011.3  6918.9  1013.3  6929.4  1014.0  6941.7  1012.7  6944.3  1011.1  6952.1
GR1011.1  6957.5  1012.4  6964.4  1010.1  6973.7  1011.4  7022.6  1011.2  7053.6
GR1010.3  7053.9  1010.3  7111.1  1011.8  7151.3  1011.0  7155.6  1012.0  7391.8
GR1011.6  7613.9  1012.1  7874.2  1013.4  8117.3  1013.0  8158.4  1014.3  8163.4
```

```
GR1014.4  8173.5  1012.8  8179.0  1013.0  8214.2  1014.4  8284.9  1013.6  8286.3
GR1012.9  8294.9  1014.2  8304.5  1012.9  8390.4  1013.0  8565.3  1008.1  8767.6
GR1006.0  8952.1  1020.6  8973.4  1020.7  9009.5  1006.2  9025.2  1006.9  9130.7
G    5.9  9153.1  1007.9  9194.9  1009.0  9401.2  1008.8  9516.9  1009.7  9523.9
G    8.5  9529.4  1008.8  9564.7  1010.0  9583.1  1005.0  9600.1  1005.0  9755.8
GR1006.4  9786.9  1006.6  9828.4  1005.7  9854.9  1007.7  9870.6  1008.1 10010.8
GR1008.3 10123.7  1006.4 10265.7  1006.8 10307.4  1006.3 10480.7  1009.6 10507.5
GR1012.5 10519.8  1013.8 10597.5  1013.5 10766.3  1012.5 10795.4  1013.5 10816.7
GR1011.6 10827.2  1010.6 10883.1  1011.5 10884.0  1011.7 10991.4  1013.3 10999.4
GR1011.9 11154.1  1013.8 11176.2  1014.1 11233.5  1013.1 11268.3  1013.7 11274.5
GR1013.2 11293.3  1012.3 11294.1  1017.5 11322.2  1018.2 11337.1  1017.0 11359.4
GR1015.0 11376.3  1014.8 11586.0
HD 8.433      10    9000   10940            1000    9100   10940
  *GR POINTS MODIFIED - BOTTOM OF GRAVEL MINE RAISED TO ELIMINATE NON-
  *EFFECTIVE FLOW AREA BETWEEN SECTIONS 8.534 TO 8.875.
X1 8.768      73  9584.7 10102.8    1735    1765 1764.77
X3                        8182.6    1018   11500    1018
XL                          9000   11000
GR1021.5  6820.4  1020.9  6871.9  1018.3  6891.7  1019.6  6913.5  1019.1  6923.6
GR1016.2  6931.0  1019.3  6940.2  1017.2  7099.1  1014.8  7135.2  1015.0  7168.0
GR1016.7  7199.0  1014.7  7325.5  1015.5  7354.6  1015.1  7667.5  1015.3  8018.9
GR1016.3  8177.8  1017.4  8182.6  1016.2  8185.7  1014.8  8221.7  1016.6  8233.2
GR1016.4  8609.8  1017.3  8912.1  1018.3  8921.6  1017.4  8929.1  1016.3  9053.3
GR1018.5  9082.6  1017.0  9103.2  1016.2  9147.4  1014.6  9168.7  1011.9  9186.9
GR1010.1  9230.0  1010.6  9376.9  1014.4  9399.6  1015.0  9575.4  1014.3  9584.7
GR1011.7  9596.2  1011.9  9616.7  1014.9  9627.9  1014.2  9882.6  1008.4  9901.1
GR1008.4 10075.9  1015.8 10102.8  1015.6 10460.9  1014.6 10627.3  1013.9 10650.0
GR1013.9 11250.5  1017.1 11275.3  1018.8 11523.5  1017.7 11656.2  1018.3 11826.0
GR1017.7 11888.7  1019.3 11923.5  1018.0 11936.7  1017.8 12001.1  1017.8 12505.3
GR1018.9 12523.0  1018.1 12551.7  1017.8 12561.4  1017.8 12885.4  1027.8 12901.0
GR1028.2 12921.5  1023.3 12934.8  1022.6 12954.5  1017.8 12997.1  1017.8 13068.9
GR1021.4 13136.0  1022.6 13179.3  1028.0 13212.5  1028.2 13251.1  1022.8 13271.3
GR1022.5 13295.0  1026.9 13348.6  1027.0 13388.5
HD 8.768      10    7000   11000            1005    9160   10930
X1 8.992      92  9819.1 11458.9    1230    1000    1185
X3                          9300    1022   11545    1022
XL                          9700   11460
GR1019.7  6650.5  1019.9  6869.8  1019.3  7088.8  1018.3  7308.1  1018.1  7357.4
GR1018.4  7405.7  1018.1  7504.7  1018.5  7653.7  1018.2  7853.7  1018.0  8053.8
G    8.1  8264.5  1018.4  8468.0  1018.5  8703.9  1018.7  8903.9  1019.0  9027.4
G    9.5  9087.0  1021.0  9090.7  1020.7  9100.0  1019.3  9109.2  1020.1  9296.8
GR1021.5  9328.8  1020.5  9349.7  1020.0  9438.9  1020.1  9504.0  1019.5  9556.4
GR1017.3  9599.3  1018.2  9666.3  1018.3  9706.1  1019.2  9732.7  1017.7  9759.7
GR1018.5  9768.4  1017.8  9819.1  1009.1  9833.6  1009.0  9846.9  1008.1  9861.1
GR1010.3  9909.7  1010.7  9990.4  1008.9 10005.9  1008.8 10022.3  1016.4 10042.0
GR1016.9 10052.9  1015.9 10160.6  1016.0 10270.5  1016.5 10316.7  1016.2 10350.3
GR1018.0 10379.5  1019.3 10546.0  1017.0 10601.9  1014.8 10621.9  1014.4 10655.5
GR1015.3 10874.6  1016.7 10991.6  1015.2 11039.4  1015.3 11125.6  1017.1 11151.2
GR1016.3 11204.2  1016.4 11261.7  1018.9 11299.8  1017.9 11310.6  1018.5 11319.2
GR1018.0 11328.3  1016.3 11336.4  1017.5 11339.8  1018.8 11349.2  1016.2 11362.2
GR1017.6 11368.0  1017.7 11375.3  1016.4 11385.1  1021.2 11407.1  1019.8 11426.3
GR1019.0 11458.9  1017.6 11474.7  1016.3 11480.5  1015.1 11493.3  1021.9 11515.7
GR1023.5 11522.7  1024.3 11529.3  1026.1 11539.3  1026.6 11545.6  1025.5 11561.6
GR1016.2 11587.4  1016.1 11604.1  1022.6 11633.5  1023.3 11713.8  1021.5 11863.3
GR1022.4 11891.7  1022.0 11904.7  1020.8 11918.2  1020.0 11940.3  1020.6 12044.9
GR1022.2 12097.0  1025.2 12129.3
HD 8.992      10    9700   11460            1005    9800   11460
     ************UPSTREAM LIMIT OF INDIAN SCHOOL 2-S***********************
     ********************************************************************
NC  0.05    0.05   0.035     0.3     0.5
     *************U/S CAMELBACK ROAD AND D/S OF NEW RIVER CONFLUENCE**************
     ************BEGIN SAND AND GRAVEL MINES BETWEEN CAMELBACK AND BETHANY HOME***
     ******************************************************************************
X1 9.266      93  9725.9 11607.3    1539     889 1430.62
X3                        9439.6    1026   11700    1026
XL                          9725   11700
GR1024.3  7822.4  1024.5  8138.1  1024.7  8447.1  1024.9  8756.0  1024.2  9091.8
GR1023.4  9402.0  1023.3  9418.1  1024.2  9423.6  1021.6  9432.7  1024.2  9439.6
GR1022.9  9444.9  1022.4  9529.5  1020.2  9575.9  1022.3  9661.6  1022.1  9725.9
GR1013.9  9852.8  1017.2 10006.0  1013.9 10058.2  1013.7 10086.7  1017.3 10103.7
GR1016.8 10209.4  1015.7 10230.4  1016.6 10257.2  1014.7 10308.2  1014.3 10344.1
GR1018.0 10369.8  1017.8 10486.5  1019.5 10508.4  1021.4 10604.4  1021.3 10654.4
GR1019.6 10685.0  1019.7 10704.5  1016.3 10751.4  1017.9 10770.7  1021.4 10905.8
GR1020.8 11021.8  1021.6 11204.6  1020.8 11252.1  1017.1 11283.4  1018.2 11404.6
GR1017.7 11468.4  1021.5 11607.3  1018.7 11635.1  1017.1 11660.6  1023.1 11704.5
G    2.8 11728.9  1017.3 11752.5  1017.5 11789.2  1023.8 11815.8  1024.4 11854.6
G   12.1 11954.6  1023.1 12278.8  1021.6 12459.7  1020.1 12472.3  1021.7 12489.4
GR1020.8 12507.6  1022.4 12660.6  1019.8 12672.3  1019.0 12686.2  1021.1 12714.1
GR1020.8 12727.1  1022.4 12754.6  1021.7 13004.7  1020.1 13039.2  1022.2 13104.7
GR1021.4 13173.2  1018.6 13185.1  1018.2 13192.5  1022.7 13202.6  1018.5 13212.1
GR1019.0 13244.7  1023.0 13254.3  1018.1 13265.2  1019.3 13347.4  1020.2 13359.6
GR1020.5 13394.8  1018.9 13405.5  1020.6 13454.7  1020.8 13490.7  1022.7 13501.3
GR1023.2 13532.9  1022.0 13542.7  1022.7 13554.9  1023.2 13887.5  1023.1 14188.9
GR1023.3 14504.7  1023.0 14515.6  1024.2 14522.5  1023.3 14526.3  1023.2 14854.7
```

```
GR1023.8 15204.7  1024.1 15254.7  1024.1 15454.2
HD 9.266      10    9440   15250            1014    9440   15200
N  0.05    0.05   0.035     0.1     0.3
    .435      83  9548.8 11146.3     875     915  889.44
.                            8158    1026   11839    1026
XL                           9540   11150
GR1026.4  8158.2  1026.9  8488.2  1026.6  8820.8  1026.6  9153.1  1027.0  9359.2
GR1024.3  9366.6  1026.9  9375.9  1025.8  9380.2  1024.1  9489.5  1025.0  9548.8
GR1019.4  9576.8  1019.2  9849.0  1018.4  9908.7  1019.6  9922.6  1015.2  9933.9
GR1015.4  9996.3  1018.3 10046.3  1018.6 10097.9  1017.2 10118.4  1017.3 10146.3
GR1016.2 10155.8  1016.5 10181.7  1020.3 10199.6  1021.2 10546.3  1020.0 10889.1
GR1020.7 11048.3  1019.4 11060.7  1023.5 11095.3  1023.2 11111.6  1025.8 11146.3
GR1025.1 11318.4  1022.3 11346.7  1023.9 11346.8  1025.4 11396.3  1023.4 11715.2
GR1024.4 11799.5  1023.5 11816.9  1031.5 11839.2  1024.4 11854.6  1023.6 12095.2
GR1026.5 12103.4  1023.3 12111.2  1023.4 12173.1  1021.8 12180.1  1025.3 12196.4
GR1026.7 12210.6  1024.4 12279.4  1024.9 12296.3  1023.9 12317.6  1024.1 12372.9
GR1025.8 12381.3  1024.7 12389.2  1026.0 12412.9  1025.1 12426.1  1022.6 12436.7
GR1024.1 12462.4  1023.1 12467.5  1023.5 12488.3  1027.8 12501.1  1023.6 12514.8
GR1024.8 12652.4  1024.8 12948.7  1025.7 13145.7  1023.8 13152.6  1024.7 13198.4
GR1028.4 13207.9  1028.1 13222.0  1024.3 13232.5  1023.0 13249.0  1023.7 13452.5
GR1028.8 13477.7  1028.7 13513.8  1024.3 13534.0  1023.4 13714.2  1020.2 13778.8
GR1020.1 14098.7  1020.7 14275.7  1025.3 14461.9  1025.7 14778.3  1024.9 15117.5
GR1025.7 15440.3  1028.8 15731.5  1030.3 15743.1
HD 9.435      10  9548.8 11146.3            1015    9350   13500
QT
X1 9.696      91  9602.6 10996.2    1430    1330 1383.24
X3                           9015    1030   11702    1030
XL                           9600   13500
GR1029.9  7599.1  1029.2  7912.4  1029.7  8257.2  1030.5  8619.8  1029.9  8831.5
GR1028.9  8845.5  1028.1  8992.0  1029.5  9015.3  1026.3  9041.5  1020.9  9075.8
GR1019.3  9100.8  1019.0  9317.2  1023.7  9420.4  1023.3  9442.7  1024.3  9588.4
GR1026.2  9602.6  1026.1  9618.1  1027.9  9632.9  1026.0  9655.6  1027.2  9668.0
GR1027.6  9692.2  1028.3  9696.5  1026.7  9753.2  1027.0  9818.1  1022.2  9845.3
GR1020.6  9885.0  1022.9  9958.5  1022.2  9970.0  1022.9  9987.3  1022.2 10010.3
GR1024.7 10030.2  1025.6 10107.8  1025.2 10146.5  1024.5 10147.3  1024.7 10232.4
GR1018.7 10247.8  1018.7 10339.8  1020.3 10349.2  1022.2 10433.3  1021.8 10446.8
GR1023.6 10545.7  1023.9 10724.6  1024.9 10739.3  1024.4 10971.5  1026.9 10996.2
GR1028.4 11103.5  1026.2 11181.0  1027.7 11201.0  1027.4 11533.9  1028.1 11659.0
G  27.1 11690.8  1029.1 11702.1  1024.2 11713.9  1023.4 11748.9  1024.0 11775.8
     3.2 12099.7  1024.0 12265.9  1024.8 12280.0  1025.1 12425.6  1022.1 12449.5
G  21.3 12467.7  1022.9 12487.3  1025.4 12493.6  1025.4 12539.0  1023.3 12552.1
GR1025.5 12557.5  1024.9 12601.6  1025.9 12902.3  1027.4 13067.7  1030.4 13077.2
GR1027.9 13089.0  1026.4 13183.5  1025.5 13215.4  1027.3 13280.3  1028.4 13555.0
GR1027.3 13906.4  1027.2 14209.6  1027.1 14347.5  1028.2 14354.0  1028.0 14669.0
GR1027.3 14730.2  1027.7 15048.9  1028.6 15362.0  1028.8 15462.4  1028.7 15548.9
GR1030.4 15610.3  1034.4 15621.3  1034.8 15633.1  1030.2 15641.5  1029.5 15651.1
GR1030.2 15663.0
HD 9.696      10    9600   11750            1018   10550   15500
          -------SOUTH OF GLENDALE AIRPORT------
     --------------SAND AND GRAVEL MINE WEST OF GLENDALE AIRPORT---------
X1 9.885      91  9327.8 10706.6    1090     825  996.40
X3                          9327.8    1032   12100    1032
XL                          9327.8   12800
GR1039.2  7565.7  1040.2  7662.3  1034.6  7685.9  1030.3  7700.2  1031.3  7867.8
GR1029.7  7916.4  1027.5  7931.4  1026.9  7950.4  1030.6  7976.2  1031.5  7997.4
GR1036.9  8022.8  1038.7  8074.4  1037.7  8126.1  1038.6  8229.3  1030.0  8275.0
GR1029.1  8298.7  1024.4  8321.0  1023.7  8351.4  1031.1  8385.8  1031.2  8512.7
GR1033.1  8528.7  1031.2  8560.8  1030.8  8895.1  1030.9  8906.2  1029.6  8919.4
GR1029.8  9072.1  1029.1  9082.1  1030.3  9093.1  1029.6  9210.6  1032.3  9290.7
GR1030.8  9299.0  1031.3  9327.8  1026.1  9346.9  1027.3  9423.2  1028.4  9430.8
GR1029.2  9506.5  1028.0  9575.4  1029.3  9589.9  1028.9  9891.7  1028.8  9906.9
GR1023.8  9943.1  1021.1 10038.7  1023.4 10078.6  1026.8 10380.8  1027.1 10669.0
GR1029.9 10706.6  1028.7 11026.7  1028.5 11086.3  1027.3 11098.7  1028.9 11111.9
GR1028.5 11220.7  1028.4 11325.3  1027.6 11358.6  1028.7 11372.0  1025.8 11398.6
GR1029.1 11415.3  1028.9 11748.4  1028.5 11808.8  1030.7 11828.7  1031.0 12156.6
GR1030.4 12166.2  1030.1 12236.2  1031.4 12257.8  1031.2 12452.6  1028.4 12472.0
GR1031.1 12656.6  1030.8 12906.6  1029.6 12946.3  1031.2 13006.6  1030.2 13048.4
GR1031.1 13078.7  1029.6 13093.9  1029.3 13107.9  1031.3 13116.8  1030.8 13158.5
GR1028.0 13195.5  1028.6 13366.4  1029.6 13556.6  1029.4 13659.0  1030.3 13959.7
GR1030.6 14219.8  1031.3 14232.5  1030.5 14237.0  1030.7 14250.8  1029.1 14263.3
GR1030.4 14606.6  1030.6 14909.8  1032.2 15157.1  1031.1 15164.5  1035.3 15172.3
GR1035.2 15177.3
HD 9.885      10  9327.8   15050            1021   10100   15050
X110.167      91  9412.5 10272.2    1820    1135 1491.12
X                           9380    1034 11989.1  1036.3
X                           9200 11989.1
GR  36.2  7129.0  1037.7  7194.5  1035.7  7205.8  1037.3  7277.2  1037.1  7420.3
GR1039.4  7453.6  1037.1  7485.2  1038.7  7507.3  1037.7  7579.8  1038.3  7590.5
GR1037.3  7594.2  1037.3  7713.7  1036.2  7723.0  1036.4  7888.6  1038.2  7925.2
GR1037.1  7939.2  1035.1  8120.7  1036.1  8128.4  1036.5  8429.0  1035.2  8480.7
GR1037.0  8786.9  1035.9  8921.4  1037.0  8943.4  1036.8  8974.4  1031.8  9018.5
GR1039.2  9040.9  1034.5  9055.3  1033.7  9126.3  1036.7  9148.2  1033.3  9165.5
GR1033.8  9220.1  1033.4  9233.3  1034.7  9240.3  1038.4  9252.7  1035.6  9256.7
GR1033.3  9272.8  1033.5  9412.5  1030.1  9441.5  1028.9  9508.9  1029.9  9773.1
```

```
GR1023.3 10025.7  1023.7 10040.0  1025.8 10051.5  1026.7 10190.6  1028.9 10206.1
GR1028.6 10254.0  1031.0 10272.2  1033.1 10498.3  1032.9 10848.3  1033.0 11148.3
GR1032.2 11453.2  1030.3 11467.7  1032.9 11483.3  1032.3 11523.7  1030.0 11546.4
    34.0 11563.1  1032.4 11603.2  1032.6 11807.8  1033.8 11846.8  1032.4 11877.0
   034.1 11898.4  1033.1 11953.6  1033.7 11977.0  1036.3 11989.1  1031.3 12008.1
GR1033.4 12031.2  1033.2 12088.4  1031.7 12103.8  1033.5 12114.2  1032.3 12117.7
GR1034.5 12198.3  1033.1 12499.2  1032.6 12530.4  1034.2 12592.6  1032.8 12620.5
GR1032.5 12695.9  1030.5 12748.7  1033.1 12905.5  1030.4 13006.4  1032.1 13048.1
GR1033.2 13355.8  1033.5 13581.8  1034.8 13585.3  1031.2 13629.7  1033.4 13936.1
GR1032.9 14248.3  1033.1 14395.7  1037.8 14406.5  1038.1 14419.7  1033.2 14430.0
GR1033.1 14443.1
HD10.167      10    9200   14340            1023    9660   14340
NC  0.05    0.05   0.045
X110.343      78  9782.1 10288.8     910     695  923.51
X3                        9750    1040   11416    1040
XL                        9750   11416
GR1043.6  5749.1  1044.2  5780.6  1038.7  5851.9  1039.0  6019.2  1039.2  6332.0
GR1039.2  6402.4  1036.8  6515.4  1039.7  6852.7  1039.1  7156.0  1038.6  7398.1
GR1040.0  7472.0  1039.8  7821.6  1039.2  8124.2  1040.1  8426.7  1038.4  8626.1
GR1035.8  8870.7  1039.2  8882.3  1030.0  8906.1  1030.0  9429.5  1031.6  9432.5
GR1033.6  9465.9  1034.3  9531.5  1031.4  9573.0  1031.9  9592.8  1036.7  9615.6
GR1031.8  9659.5  1031.4  9770.7  1032.9  9782.1  1029.4  9854.5  1031.9  9869.3
GR1029.4  9924.3  1030.7 10065.3  1026.7 10247.0  1035.2 10288.8  1036.1 10312.9
GR1035.6 10620.5  1034.8 10841.9  1034.0 10847.5  1034.8 10947.5  1033.8 10988.6
GR1034.1 11072.8  1033.2 11092.4  1035.7 11109.8  1035.9 11151.3  1037.1 11164.0
GR1035.8 11184.6  1036.7 11198.0  1035.1 11214.8  1036.3 11231.4  1034.8 11244.9
GR1035.6 11279.1  1034.4 11296.8  1035.7 11345.3  1033.4 11353.5  1033.1 11388.4
GR1035.0 11390.4  1037.4 11416.6  1035.1 11427.0  1033.9 11612.9  1035.2 11918.3
GR1033.7 12029.0  1035.4 12049.5  1035.0 12282.6  1033.3 12306.7  1034.1 12609.1
GR1035.1 12942.0  1034.8 13067.5  1036.1 13073.7  1034.5 13086.5  1035.2 13108.0
GR1033.0 13133.3  1032.5 13203.6  1034.5 13221.6  1035.3 13542.0  1036.5 13836.8
GR1039.9 13845.1  1040.0 13859.8  1035.3 13871.1
HD10.343      10    8520   13750            1026    8520   13750
X110.538      87  9573.5 10478.1     925     985 1033.23
X3                       9514.6    1044   11058    1040
XL                        8600 10478.1
GR1044.3  5184.9  1041.9  5231.3  1040.7  5346.6  1042.0  5381.6  1039.6  5682.2
GR1040.9  5982.8  1040.5  6283.3  1041.2  6595.7  1041.2  6884.5  1041.0  7201.5
GR1041.2  7536.3  1043.3  7856.8  1042.5  7964.9  1043.8  7979.7  1040.8  8090.9
    38.3  8289.3  1041.4  8383.5  1047.4  8433.6  1045.1  8442.7  1042.2  8474.3
   036.6  8494.1  1039.0  8523.1  1039.3  8623.9  1039.5  8689.3  1037.5  8721.0
GR1032.6  8730.1  1032.6  9358.6  1030.7  9369.0  1031.1  9393.1  1032.6  9397.3
GR1034.7  9485.0  1034.7  9515.0  1032.4  9550.4  1035.0  9573.5  1032.3  9735.6
GR1033.1  9803.1  1031.7  9852.9  1033.8  9961.2  1034.1 10074.0  1033.2 10146.3
GR1034.8 10204.0  1032.3 10314.7  1031.2 10415.1  1033.6 10426.6  1035.0 10466.3
GR1037.9 10478.1  1037.0 10517.7  1038.0 10546.0  1036.8 10585.9  1037.3 10707.3
GR1038.3 10796.1  1039.2 10804.0  1036.6 10849.8  1038.0 10898.1  1036.0 10910.1
GR1037.4 10922.0  1039.0 11058.2  1038.2 11357.2  1035.9 11378.0  1036.5 11469.0
GR1035.7 11506.5  1038.3 11558.5  1039.7 11652.5  1041.5 11661.6  1037.8 11677.8
GR1039.3 11777.4  1037.9 11782.6  1039.3 11801.3  1038.9 11978.3  1036.8 12039.8
GR1038.1 12076.2  1037.0 12092.7  1038.3 12115.4  1037.3 12121.4  1037.7 12452.6
GR1037.2 12566.3  1038.0 12577.1  1035.0 12729.0  1036.0 12746.9  1034.0 12773.6
GR1038.3 12884.7  1038.0 13202.7  1037.9 13388.3  1042.7 13400.0  1042.9 13414.2
GR1037.2 13424.5  1036.8 13435.8
HD10.538      10    7870   13320            1030    7870   13320
X110.752      90  9651.8 10329.8    1070    1140 1124.93
X3                        9335    1042 10329.9    1042
XL                             10550
GR1048.3  4553.6  1042.4  4584.0  1043.1  4589.6  1041.1  4596.6  1043.2  4602.7
GR1041.0  4611.6  1043.0  4932.6  1042.0  4953.3  1043.8  5038.2  1043.0  5364.3
GR1043.0  5568.7  1040.6  5581.1  1040.8  5666.5  1043.3  5817.5  1042.3  6064.3
GR1043.7  6114.4  1041.7  6202.8  1041.3  6326.6  1043.9  6339.8  1043.0  6471.4
GR1044.3  6633.7  1043.6  6950.9  1044.4  7078.8  1042.6  7100.9  1044.6  7164.5
GR1043.0  7246.6  1044.8  7272.1  1043.2  7333.1  1043.6  7635.3  1048.5  7656.2
GR1044.1  7668.1  1044.0  7762.8  1047.4  7775.5  1044.2  7789.3  1041.2  8106.8
GR1041.3  8424.9  1040.7  8502.3  1042.7  8522.6  1040.8  8716.0  1042.7  8801.5
GR1040.7  8984.9  1041.3  9206.3  1038.2  9231.8  1038.2  9254.6  1042.6  9273.2
GR1042.7  9292.9  1045.3  9295.8  1047.0  9301.0  1044.9  9309.8  1046.2  9321.9
GR1038.5  9341.6  1038.6  9354.0  1040.3  9360.6  1041.0  9651.8  1038.4  9739.9
GR1037.1  9743.8  1031.3  9930.8  1036.5 10237.9  1033.2 10271.5  1033.7 10296.1
GR1042.8 10329.8  1040.5 10347.4  1042.1 10360.7  1041.9 10521.1  1041.1 10809.6
GR1039.3 10813.4  1041.9 10829.9  1040.2 10882.0  1041.2 10904.0  1039.9 10912.1
GR1040.7 11232.0  1041.0 11281.3  1039.6 11292.4  1041.3 11304.8  1041.8 11416.8
GR1040.6 11424.2  1041.6 11431.8  1039.4 11582.0  1040.9 11706.0  1039.1 11724.7
GR1041.6 11812.4  1038.4 11831.6  1041.1 11983.8  1038.8 12046.3  1040.4 12097.7
     6.6 12134.1  1036.8 12148.4  1041.2 12171.6  1039.9 12482.5  1042.7 12661.3
HD10.752      10    9200   12690            1025   10550   12660
X110.846      91  9756.4 10308.2     510     480  500.68
X3                        8865    1044 10402.4    1044
XL                             10300
GR1046.7  4455.3  1042.9  4484.7  1043.7  4812.2  1043.8  5129.0  1043.8  5433.6
GR1044.1  5530.4  1046.4  5558.5  1041.5  5602.2  1045.1  5927.4  1044.9  6130.9
GR1043.3  6192.7  1044.4  6233.7  1043.6  6291.3  1045.2  6592.3  1045.2  6865.7
GR1043.5  6881.1  1046.0  6943.5  1044.7  7051.7  1046.2  7081.4  1044.9  7091.1
```

```
GR1046.9  7101.3  1043.9  7119.5  1046.3  7147.0  1045.8  7462.6  1049.2  7474.5
GR1044.0  7487.9  1046.2  7572.9  1048.6  7583.4  1046.3  7599.4  1045.6  7653.5
GR1043.4  7674.3  1043.0  7985.4  1041.5  8301.1  1042.5  8319.7  1042.0  8459.6
    43.9  8485.0  1042.8  8530.2  1044.1  8547.8  1044.3  8770.3  1042.4  8787.3
    42.1  8963.4  1043.0  9125.3  1041.7  9155.7  1042.6  9496.4  1041.8  9621.3
GR1040.7  9636.3  1039.3  9713.9  1039.0  9756.4  1034.8  9829.0  1033.3  9916.9
GR1031.6  9937.5  1035.3 10030.4  1037.4 10223.5  1033.7 10237.0  1033.6 10267.9
GR1038.8 10283.4  1042.9 10308.2  1040.5 10341.8  1042.0 10384.0  1041.2 10394.2
GR1044.4 10402.4  1042.7 10409.7  1044.3 10419.7  1042.4 10496.4  1043.7 10522.5
GR1042.7 10830.5  1043.1 10840.5  1040.9 10848.8  1040.5 10856.7  1043.7 10865.5
GR1042.8 10994.0  1040.8 11003.6  1043.6 11155.2  1042.4 11164.5  1042.9 11173.3
GR1041.7 11176.7  1043.5 11316.2  1042.3 11568.9  1041.2 11574.0  1044.0 11627.0
GR1040.0 11674.8  1040.2 11730.9  1042.9 11769.5  1041.4 11804.3  1038.8 11820.9
GR1038.2 11875.5  1043.1 11899.9  1042.7 11965.1  1043.9 11981.0  1041.9 12286.9
GR1042.2 12373.3
HD10.846      10    7572   12370            1025   10680   12300
   *****************UPSTREAM END OF SAND AND GRAVEL MINES BETWEEN CAMELBACK ******
   *****************AND BETHANY HOME ROAD - PITS DEPTHS BASED ON AREA WEIGHTED****
   *****************PIT DEPTHS AS A FUNCTION OF TOTAL MINING AREA*****************
NC  0.05   0.095   0.045
X111.029      95  9513.1 10404.2    1035     865  963.30
X3                         9240    1046   10467    1046
GR1055.5  3356.7  1053.0  3607.3  1053.9  3617.6  1051.2  3623.8  1050.3  3635.8
GR1051.3  3641.5  1049.4  3661.8  1047.1  3741.2  1046.4  3861.8  1044.0  3889.2
GR1045.3  3899.9  1045.1  4187.0  1046.2  4194.5  1045.9  4514.8  1044.5  4858.6
GR1044.0  4890.1  1046.3  5011.7  1046.5  5170.4  1047.9  5180.1  1045.6  5308.8
GR1047.0  5332.6  1047.1  5634.9  1048.1  5911.6  1047.2  5921.0  1048.0  6085.4
GR1047.2  6101.4  1049.2  6153.3  1050.8  6165.5  1048.2  6173.3  1048.1  6334.7
GR1049.8  6357.8  1048.8  6434.9  1048.0  6707.0  1046.9  6725.3  1048.8  6762.4
GR1048.9  6825.3  1053.4  6836.7  1045.6  6854.7  1045.3  6863.6  1047.4  6874.8
GR1047.9  6903.9  1046.3  6930.1  1053.0  6943.7  1046.6  6962.1  1047.4  7135.8
GR1046.0  7161.8  1045.7  7357.5  1047.9  7387.4  1048.1  7711.8  1048.2  7900.9
GR1046.2  7927.7  1046.5  8279.3  1045.2  8637.4  1043.4  8986.4  1044.2  9100.0
GR1042.4  9115.1  1042.9  9152.3  1045.8  9188.3  1046.5  9353.7  1045.1  9513.1
GR1041.5  9524.5  1042.0  9546.7  1040.2  9557.3  1039.7  9592.4  1035.5  9671.5
GR1036.6  9715.5  1034.7  9802.0  1036.2  9811.0  1040.6  9884.3  1037.7 10099.7
GR1039.2 10225.5  1036.1 10263.7  1036.1 10322.4  1037.2 10344.9  1036.4 10379.6
GR1042.3 10404.2  1042.2 10423.3  1043.5 10450.3  1046.4 10467.9  1046.3 10864.9
GR1044.9 10971.0  1042.5 11028.3  1043.2 11075.1  1041.2 11108.6  1042.3 11164.9
    15.9 11215.0  1045.1 11460.7  1046.9 11477.3  1046.5 11492.9  1043.5 11499.2
    45.7 11513.6  1047.7 11765.0  1046.2 11797.1  1047.8 11809.8  1048.6 11874.4
HD11.029      10    8700   10700
         -------GLENDALE AVENUE----------
X111.428      94  9814.2 10227.2    1960    2335    2160
X3    10
XL                         9500 10227.2
GR1053.9  6112.3  1053.8  6146.3  1053.1  6190.4  1052.6  6205.4  1053.1  6261.9
GR1053.5  6420.4  1054.0  6584.1  1053.8  6696.9  1054.0  6739.9  1054.9  6743.7
GR1055.7  6751.3  1056.1  6785.1  1054.7  6802.7  1053.8  6851.1  1053.3  6955.0
GR1053.6  7084.9  1053.3  7307.9  1053.3  7364.2  1053.8  7369.9  1054.2  7435.4
GR1053.4  7516.6  1052.9  7610.6  1054.4  7621.3  1056.7  7630.6  1057.7  7643.1
GR1053.8  7652.2  1052.9  7716.2  1052.6  7792.8  1052.9  7815.9  1052.3  7822.9
GR1054.1  7846.5  1054.2  7872.5  1053.6  7883.0  1053.0  7921.1  1053.9  8007.5
GR1054.0  8166.3  1053.7  8198.4  1054.1  8224.5  1053.9  8254.5  1053.9  8299.6
GR1053.6  8314.2  1054.1  8483.6  1053.9  8536.8  1054.7  8651.9  1055.0  8808.0
GR1055.4  8840.7  1055.5  8882.6  1056.2  8968.2  1056.1  8995.0  1056.7  9025.9
GR1057.0  9076.1  1055.8  9081.4  1057.8  9120.0  1059.0  9222.0  1057.1  9241.3
GR1058.6  9270.3  1059.7  9320.2  1058.2  9361.0  1060.2  9374.9  1061.5  9379.8
GR1062.2  9431.7  1058.7  9446.3  1058.1  9460.4  1061.1  9473.0  1060.3  9587.0
GR1058.2  9587.8  1058.3  9604.0  1058.6  9607.0  1056.6  9613.1  1053.6  9620.2
GR1051.9  9625.0    1050  9632.2    1050  9640.6    1050  9714.2    1050  9725.0
GR  1050  9750.0    1050  9763.8    1050  9786.9    1050  9794.8  1049.8  9814.2
GR1048.4  9820.3  1045.1  9831.8  1044.5  9880.4  1044.2  9937.0  1043.7  9966.4
GR1042.2  9986.0  1042.6 10059.1  1041.8 10166.5  1050.7 10188.8  1056.7 10205.7
GR1057.7 10207.0  1059.3 10210.4  1060.1 10227.2  1060.7 10253.1
HD11.428      10    9500 10227.2
NC  0.15   0.055   0.035     0.3     0.5
   ***************DOWNSTREAM LIMIT OF GLENDALE-1****************************
   ************************************************************************
X111.557      95  9881.6 10100.9     675     675  677.68
X3                         8970    1058   10122    1058
XL                         9000 10100.9
GR1049.8  5996.1  1049.4  6005.2  1050.0  6052.1  1051.1  6070.8  1057.1  6085.5
GR1049.3  6107.5  1050.7  6151.4  1051.3  6203.3  1051.5  6352.2  1051.1  6402.8
GR1051.2  6502.5  1050.4  6552.2  1051.6  6710.5  1051.5  6753.3  1050.9  6760.4
GR    1.5  6802.2  1051.7  6971.8  1049.9  6995.6  1050.4  7260.8  1050.8  7302.2
GR    0.1  7352.2  1050.0  7472.8  1049.1  7482.4  1049.0  7502.2  1050.4  7591.0
GR1051.9  7595.5  1052.2  7607.9  1050.4  7618.5  1050.2  7664.5  1051.2  7715.0
GR1051.2  7802.2  1052.4  7855.1  1052.8  7902.2  1052.2  7957.7  1051.8  7962.9
GR1052.4  7973.1  1056.4  7982.2  1023.7  8030.9  1023.9  8118.8  1022.8  8202.2
GR1026.1  8452.2  1026.3  8492.9  1038.0  8514.0  1041.3  8520.6  1044.5  8525.6
GR1051.8  8540.7  1051.9  8602.3  1052.7  8617.6  1046.2  8630.3  1036.0  8651.4
GR1035.2  8702.3  1037.2  8852.3  1037.2  8928.2    1050  8970.0    1050  9126.4
GR  1050  9259.7    1050  9271.6    1050  9282.5    1050  9301.2    1050  9317.2
```

```
GR  1050  9332.6    1050  9347.1    1050  9367.0    1050  9390.9    1050  9410.4
GR  1050  9433.5    1050  9440.9    1050  9463.7    1050  9490.9    1050  9521.8
GR  1050  9550.3    1050  9585.2    1050  9602.3    1050  9632.9    1050  9701.6
    1050  9717.3    1050  9742.1    1050  9774.0    1050  9782.9    1050  9799.3
    1050  9845.0    1050  9865.4    1050  9872.3  1051.2  9881.6  1044.5  9900.1
GR1043.9  9927.3  1042.7  9944.6  1041.8  9978.7  1041.7  9995.0  1045.5 10011.0
GR1042.9 10052.3  1043.4 10070.4  1058.9 10100.9  1062.0 10119.6  1062.0 10122.1
HD11.557      25    8000 10100.9            1022    6100   10000
X111.847      95  9914.3 10113.4    1530    1530 1531.67
X3                          7310    1062   10173    1062
XL                        9914.3 10113.4
GR1061.0  5959.4  1023.2  6001.3  1024.8  6150.7  1020.3  6166.8  1020.8  6222.1
GR1020.5  6241.4  1022.6  6391.4  1022.3  6441.4  1023.9  6541.4  1023.0  6666.3
GR1024.4  6841.4  1025.6  7020.0  1025.3  7091.4  1027.0  7172.7  1055.3  7215.7
GR  1056  7373.1    1056  7376.2    1056  7382.1    1056  7557.1    1056  7591.4
GR  1056  7626.5    1056  7656.1    1056  7691.4    1056  7741.4  1057.3  7778.0
GR1056.6  7819.6    1056  7856.7    1056  7874.0    1056  7885.8    1056  7916.5
GR  1056  7938.7    1056  7942.0    1056  7963.4    1056  7982.2  1058.9  7990.0
GR1059.3  7995.7    1056  8032.9    1056  8063.4  1058.2  8084.5  1060.8  8095.1
GR1058.8  8138.1  1058.8  8148.7  1060.5  8161.8  1059.4  8184.6  1057.4  8213.7
GR1057.6  8232.2  1056.1  8245.2  1057.5  8252.7  1057.9  8260.3  1057.6  8270.7
GR  1056  8284.7    1056  8301.9    1056  8333.1    1056  8356.2    1056  8408.0
GR  1056  8592.2    1056  8641.5    1056  8744.8    1056  8791.5    1056  8823.3
GR  1056  8852.4    1056  8880.5    1056  8892.9    1056  8902.5    1056  8917.3
GR  1056  8939.8    1056  8964.7    1056  8993.3    1056  9009.1  1055.5  9091.8
GR1057.3  9243.1  1058.7  9293.9  1059.9  9395.0  1057.4  9591.8  1058.5  9751.4
GR1056.6  9803.6  1056.2  9841.5  1057.1  9897.5  1057.1  9914.3  1055.7  9929.5
GR1048.3  9947.2  1047.8  9950.9  1048.1  9956.8  1047.6  9972.9  1045.0  9986.9
GR1044.6  9996.6  1045.0 10045.8  1046.9 10059.5  1047.3 10080.1  1050.8 10087.3
GR1050.4 10088.2  1050.5 10097.7  1052.1 10113.4  1056.2 10124.4    1066   10173
HD11.847      25    6000 10113.4            1022    6000   10000
X112.042      62  9903.4   10070     990    1050 1028.61
X3                          6350    1066   10165    1066
XL                          5900   10165
GR  1066    5900    1058    5930    1058    6005    1059  6024.1  1059.2  6048.5
GR  1060  6057.8  1058.2  6082.7  1058.2  6096.6  1058.2  6138.2  1058.2  6154.2
GR1058.2  6173.8  1058.2  6190.9  1058.2  6201.8  1058.2  8555.6  1058.2  8631.6
GR1058.2  8641.8  1061.8  8660.4  1058.2    8806  1058.2  8910.3  1058.2  8998.8
GR1058.2  9007.9  1058.2  9078.3  1058.2  9101.9  1058.2  9111.5  1058.2  9145.2
[illegible]8.2  9148.5  1058.2  9164.4  1058.2  9181.1  1058.2  9201.8  1058.2  9211.2
[illegible]58.2  9267.4  1058.2  9290.8  1058.2  9298.9  1059.3  9367.2  1062.4  9377.5
GR1062.9  9390.5  1059.5    9402  1058.5  9412.2  1058.2  9418.8  1058.2  9447.6
GR1061.2  9485.4    1061  9536.3  1058.2  9574.9  1058.2    9588  1058.2  9609.8
GR1058.2  9615.8  1058.2  9622.9  1058.2  9667.5  1058.2  9802.1  1058.2  9840.1
GR1058.2  9853.8  1062.1  9867.5  1060.9  9871.4  1061.8  9900.2    1063  9903.4
GR1050.5    9940  1049.3  9955.3  1049.7  9979.1  1048.5  9992.6  1049.8   10044
GR  1062   10070    1068   10165
HD12.042      30    7200   10165            1025    7200   10000
X112.359      73  9691.6 10061.0    1520    1680 1672.99
XL                          7600   10200
GR1072.1  6582.4  1071.7  6589.2  1068.7  6615.2  1063.8  6638.2  1062.9  6640.3
GR1058.8  6683.5  1058.8  6693.3  1058.8  6743.3  1058.8  6784.1  1058.8  6786.4
GR1058.8  6798.0  1058.8  6805.8  1058.8  6856.6  1058.8  6876.8  1058.8  6887.6
GR1058.8  6916.6  1058.8  7003.6  1058.8  7043.4  1058.8  7092.0  1061.7  7133.0
GR1060.7  7161.1  1058.8  7186.6  1058.8  7193.4  1058.8  7243.4  1058.8  7342.0
GR1058.8  8874.6  1058.8  8883.8  1063.7  8902.0  1063.6  8943.6  1062.3  9001.3
GR1060.3  9003.5  1062.7  9011.5  1063.0  9014.6  1058.8  9033.5  1058.8  9047.4
GR1058.8  9057.0  1058.8  9178.7  1058.8  9192.4  1058.8  9203.0  1058.8  9217.6
GR1058.8  9232.5  1058.8  9258.5  1058.8  9260.9  1058.8  9340.5  1058.8  9357.9
GR1058.8  9379.0  1058.8  9416.1  1058.8  9443.7  1058.8  9519.0  1058.8  9540.8
GR1058.8  9563.4  1058.8  9581.8  1058.8  9594.7  1059.0  9613.1  1060.0  9670.0
GR1065.3  9691.6  1062.3  9701.0  1057.6  9724.4  1054.6  9741.9  1052.8  9749.1
GR1052.6  9781.4  1051.7  9793.1  1053.7  9873.9  1056.6  9885.0  1056.9  9922.2
GR1058.5  9932.6  1053.3  9954.7  1053.2 10049.9  1054.7 10061.0  1056.0 10070.1
GR  1066   10095    1068   10250  1070.1 10395.0
HD12.359      30    6700   10200            1030    7200   10000
   ****************UPSTREAM LIMIT OF GLENDALE-1*****************************
   ****************************************************************************
X1 12.42      90  9014.1 10111.3     380     270  302.47
X3                          7000    1066 10782.8    1066
XL                          7950   10200
GR1066.5  6488.3  1067.3  6516.9  1066.9  6538.8  1065.6  6544.1  1065.2  6555.4
GR  1063  6566.1    1063  6635.3    1064  6639.2  1064.4  6677.3  1066.7  6684.3
GR1062.8    6700  1064.1  6824.3  1065.4  6940.9  1065.8  7074.3  1065.5  7208.6
GR  [illegible]5.1  7246.4  1061.2  7255.4  1059.8  7299.4  1062.1  7306.5    1062  7326.9
G  [illegible]060  7334.7    1060  7337.3    1060  7452.7    1060  7563.2    1060  7606.2
GR  1060  7611.8    1060  7724.4    1060  7751.7  1061.5  7790.8    1060  7802.3
GR  1060  7889.3    1060    7899    1062  7929.1  1062.3  7952.3    1063  7958.2
GR  1060  7993.2    1060  8021.8  1065.2  8037.7    1060  8056.6    1060  8147.7
GR1063.7    8165  1063.1  8180.5    1060  8205.4    1060  8219.3    1060  8236.9
GR  1060  8289.4    1060  8387.8    1060  8438.5  1062.8  8461.2  1064.7  8478.4
GR1065.5  8502.4  1065.2  8610.1  1065.1  8710.9  1064.7  8824.7    1066  8893.4
GR1066.8  8915.4    1065  8931.2  1065.3  8957.3  1063.9  9002.6  1065.1  9014.1
GR1063.6  9124.6  1062.8  9159.9  1061.9  9172.6    1061  9175.8  1059.8  9224.7
```

```
GR1060.6    9260    1054  9283.3  1056.1  9324.5    1055  9423.2  1055.9  9446.7
GR  1055  9553.3  1055.4  9600.5  1054.8  9624.7  1055.6  9731.3  1056.7  9834.5
GR1057.4  9930.4  1054.5  9953.6  1054.3 10052.7  1065.2 10111.3  1066.3   10121
    61.6 10137.4    1063 10155.7  1061.7 10166.7  1065.6 10224.7  1067.9 10342.7
    69.3 10405.9    1070 10524.7    1071 10651.2  1071.3 10747.9  1072.1 10782.8
HD 12.42      15    7200   10150
NC  .045    .040    .035     0.1     0.3
    **************DOWNSTREAM LIMIT OF NORTHERN-1 ******************************
    *************DID NOT INCLUDE IN SAND AND GRAVEL MODEL AS PROPOSED PIT********
    *************IS OUTSIDE 100-YEAR FLOODPLAIN LIMITS ACCORDING TO LOMR*********
    ****************************************************************************
X1 12.47      89  9382.2 10296.2     230     240     255
X3                        7298.5    1066 11052.3    1066
XL                        9382.2 10296.2
GR1064.5  4763.1  1062.7  4887.7  1063.3  5104.7  1063.3  5320.6  1063.5  5506.2
GR1063.6    5669  1063.7  5828.2  1064.1  5991.4  1064.1  6208.4  1064.2  6360.9
GR1064.7  6513.5    1065  6673.9  1065.1  6727.4  1065.1  7169.1  1064.7  7284.6
GR  1070  7298.5  1066.7  7309.6    1065  7420.7  1065.6    7496    1061  7510.2
GR  1061  7523.9    1061    7653    1061  7733.2  1064.2  7779.6    1064  7830.3
GR  1063  7841.4  1063.8  7920.8  1063.6  8025.7  1060.9    8058    1061  8135.2
GR1063.8  8147.9  1062.7  8155.3  1062.9    8177    1061  8187.9  1061.6  8220.1
GR  1061  8243.8    1061    8256    1061  8437.2    1061  8555.4  1061.5  8588.2
GR1065.1  8611.2  1065.9  8770.9  1066.2  8936.5  1066.3  9022.8  1068.5    9054
GR1066.9    9078  1066.2  9160.8  1067.7  9182.8  1066.7    9241  1065.2    9255
GR1067.1  9268.4    1064  9284.4  1063.2  9312.2    1062  9323.8  1062.3  9332.3
GR1064.2  9344.3    1064  9382.2  1054.9  9402.5  1055.7  9424.8  1056.6  9429.8
GR1062.3  9503.1  1057.5  9517.8  1055.6  9552.9  1063.1  9571.1  1057.9  9589.1
GR1057.7  9655.3    1059  9681.4    1062  9712.2  1062.6  9848.4  1058.3  9882.7
GR1054.9  9899.5  1056.2  9971.8  1055.1 10061.7  1059.4 10091.5    1059 10103.1
GR1062.3 10176.7  1056.2   10192  1057.4 10274.1    1064 10296.2  1065.6 10311.1
GR1065.2 10376.4  1069.1 10395.2  1069.1 10414.7  1068.1 10420.1  1069.3 10571.1
GR1071.1 10771.2  1072.9 10960.5    1074 11033.9  1073.3 11052.3
HD 12.47      10    7500 10296.2
X112.816      94  9781.2 10376.3    1780    1850 1859.04
X3                        8483.3    1068   10488    1068
XL                        9781.2 10376.3
GR1075.1  5376.4  1073.8  5383.0  1073.3  5407.1  1069.7  5426.0  1068.2  5450.3
GR1063.2  5475.1  1063.8  5505.8  1063.0  5525.5  1063.8  5574.3  1068.4  5600.9
GR1068.7  5669.0  1068.1  5684.2  1068.7  5925.6  1068.8  6158.0  1068.9  6375.7
    69.0  6575.7  1069.3  6775.7  1069.4  7089.9  1069.3  7128.3  1071.2  7134.7
G  ,70.9  7141.6  1069.6  7147.9  1069.7  7160.0  1076.1  7174.5  1072.4  7181.4
GR1070.3  7187.9  1070.5  7204.1  1067.6  7294.7  1069.6  7366.1  1069.0  7425.9
GR1059.2  7505.0  1043.3  7519.3  1044.0  7557.8  1047.1  7574.2  1047.6  7580.6
GR1042.5  7607.2  1043.7  7626.5  1046.7  7845.4  1048.3  7875.9  1047.7  7976.4
GR1048.7  8001.8  1048.6  8034.0  1044.0  8176.0  1042.7  8325.6  1041.6  8348.3
GR1047.3  8362.1  1051.2  8369.7  1050.8  8385.9  1051.5  8406.9  1055.8  8419.1
GR1057.4  8426.0  1063.4  8440.8  1072.0  8474.4  1075.6  8483.3  1070.8  8492.7
GR1070.9  8528.7  1071.6  8531.0  1067.5  8544.5  1067.0  8570.2  1068.4  8582.8
GR1067.0  8591.3  1069.7  8655.9  1069.8  8698.9  1068.4  8714.3  1066.3  8926.1
GR1067.7  9026.1  1068.6  9199.1  1069.7  9276.2  1068.3  9457.4  1071.6  9464.5
GR1078.4  9483.4  1081.3  9496.1  1082.5  9506.6  1081.6  9523.5  1085.0  9568.3
GR1083.9  9577.9  1082.0  9585.3  1080.6  9605.0  1079.2  9666.0  1079.3  9714.8
GR1080.6  9730.0  1081.6  9733.9  1079.3  9751.5  1063.6  9781.2  1057.5  9795.1
GR1057.4  9833.2  1060.7  9976.3  1060.7 10113.1  1061.7 10130.5  1060.7 10176.3
GR1064.1 10376.3  1064.0 10426.4  1064.8 10464.1  1072.3 10488.4
HD12.816      10    7500   10375
   GR POINTS MODIFIED - BOTTOM OF GRAVEL MINE RAISED TO ELIMINATE NON-
   EFFECTIVE FLOW AREA BETWEEN SECTIONS 13.007 TO 13.296.
X113.007      94  9767.1 10186.1    1000    1030 1006.76
X3                         8750    1072   10239    1072
XL                         9150 10186.1
GR1074.1  6020.7  1073.2  6026.4  1073.0  6105.1  1073.0  6158.5  1073.0  6258.1
GR1073.0  6339.2  1073.1  6437.1  1073.1  6511.2  1073.1  6737.2  1073.2  6903.6
GR1073.2  6987.2  1073.2  7099.9  1073.2  7187.3  1072.9  7191.3  1074.4  7200.7
GR1074.2  7208.7  1073.2  7215.8  1073.3  7237.3  1073.3  7296.1  1073.3  7688.9
GR1073.3  7749.3  1073.4  7787.4  1073.2  7839.1  1073.1  7890.1  1072.8  7987.4
GR1072.8  8037.4  1072.8  8087.4  1073.1  8137.4  1073.1  8209.3  1071.8  8231.0
GR1070.5  8239.8  1070.1  8251.0  1071.6  8263.1  1073.4  8286.0  1075.8  8297.9
GR1076.9  8306.4  1077.1  8311.4  1074.6  8319.0  1074.8  8367.4  1072.2  8383.8
GR1072.3  8396.5  1070.5  8428.2  1071.5  8435.7  1072.6  8449.4  1072.5  8452.0
GR1070.7  8466.3  1071.6  8483.7  1072.0  8503.9  1071.7  8513.9  1072.3  8541.8
GR1072.5  8577.6  1072.4  8637.5  1073.3  8704.4  1073.5  8727.4  1074.8  8755.7
GR1074.2  8768.6  1073.1  8779.0  1072.6  8787.6  1071.3  8837.7  1070.1  8849.8
GR1071.8  8887.6  1073.2  8955.5  1073.6  8987.6  1073.2  9037.6  1071.8  9087.6
G  72.2  9094.6  1073.3  9137.6  1072.9  9187.6  1073.3  9210.2  1070.3  9235.2
(    0.4  9287.7  1070.6  9337.7  1070.6  9405.5  1070.9  9487.7  1071.4  9587.7
GR  71.1  9637.7  1070.9  9688.4  1072.3  9713.5  1072.3  9767.1  1066.3  9792.0
GR1064.8  9823.9  1064.1  9832.2  1063.4  9836.6  1063.0  9887.8  1062.6  9914.5
GR  1062  9937.8    1062  9987.8    1062 10043.2    1062 10087.8    1062 10137.9
GR  1062 10160.9    1062 10186.1  1076.9 10237.7  1076.7 10239.1
HD13.007      10    8800   10186
NC  .045    .045    .035     0.3     0.5
   ***********UPSTREAM LIMIT OF NORTHERN-1*****************************************
   ****************************************************************************
```

```
    ----------UPSTREAM FACE OF OLIVE AVENUE----------
X113.467       89  8693.6 10286.7  2400.4  2425.4  2429.7
X3     10
C      0.1  6814.7  1089.3  6829.6  1088.5  6862.5  1087.9  6880.3  1086.6  6944.5
G     ,5.6  6980.7  1084.8  7020.5  1083.9    7051  1083.6  7107.9  1082.9  7170.4
GR1082.9  7221.9  1083.5  7345.9  1083.6  7461.7  1083.4  7619.7  1082.9  7695.5
GR1082.9  7781.8  1082.6  7838.7  1083.3  7953.6  1084.4  8056.2  1085.1  8153.8
GR1085.9  8175.2  1085.7  8190.4  1085.8  8226.6  1086.2  8237.2  1087.5    8382
GR  1088    8436  1089.3  8524.4    1090  8586.4  1090.6  8617.3  1090.9  8693.6
GR1090.7  8714.3  1089.7  8721.2    1089  8723.9  1083.7  8748.6  1075.9  8771.6
GR1074.3  8844.3  1072.6  8880.1  1072.1  8900.4  1068.8    8915  1067.8  8921.2
GR1067.7  8960.9    1067  8997.9    1067  9004.9  1068.1  9022.7  1068.6  9039.2
GR1069.3  9080.3  1069.2  9095.9  1070.5  9122.1    1071  9176.2  1070.8  9207.1
GR1071.2  9212.7    1071  9260.5  1071.2  9335.2  1071.7  9473.8  1071.7  9501.1
GR1070.6  9664.3  1070.6  9679.2  1071.3  9719.1  1069.8  9747.5  1069.7  9757.2
GR1070.5  9801.5  1070.3  9808.3  1070.7  9843.8  1071.4    9884  1070.3  9924.4
GR1070.1  9949.1  1069.2    9970  1068.2  9979.4  1065.5  9992.8  1065.5  9999.6
GR1065.1 10002.4  1064.5 10012.7  1064.5 10041.8  1064.1 10056.8  1065.5 10089.1
GR1066.5 10127.4  1066.7 10153.5  1067.9 10157.6  1068.2 10166.2  1069.2 10180.4
GR1069.1 10183.6  1082.4 10223.7  1088.6 10246.1  1090.3   10253  1090.6 10286.7
GR1090.5   10313  1089.4 10369.3  1089.6 10370.6  1090.4 10389.2
HD13.467       10  8693.6 10286.7
NC                        0.1     0.3
X113.952       93  9432.8 10076.3    2525    2585 2566.36
X3     10
GR1090.0  6174.7  1087.4  6221.0  1085.0  6300.2  1084.1  6304.8  1084.5  6323.2
GR1084.2  6340.3  1086.5  6357.6  1084.2  6376.8  1083.8  6479.7  1084.8  6505.0
GR1083.1  6515.2  1085.2  6531.5  1084.4  6610.9  1083.8  6618.1  1084.3  6632.0
GR1082.8  6659.3  1083.0  6675.2  1084.9  6693.0  1085.6  6705.5  1085.9  6770.3
GR1084.5  6780.2  1086.2  6788.5  1087.5  6971.2  1086.1  7001.4  1083.7  7023.8
GR1084.8  7071.2  1083.8  7104.2  1085.3  7133.2  1081.0  7159.3  1086.4  7186.0
GR1086.4  7221.2  1085.4  7302.8  1085.2  7442.2  1086.3  7597.5  1086.3  7696.8
GR1085.7  7771.3  1085.8  7921.3  1085.1  8071.3  1085.1  8128.3  1083.8  8138.4
GR1083.8  8155.0  1084.6  8171.4  1084.1  8236.0  1083.7  8328.1  1085.8  8369.0
GR1087.3  8384.9  1087.2  8432.5  1086.3  8471.4  1085.8  8603.7  1084.8  8622.2
GR1082.3  8642.8  1085.3  8666.1  1087.3  8688.0  1087.5  8721.5  1086.6  8771.5
GR1086.5  8800.8  1087.3  8811.2  1086.7  8827.4  1086.7  8921.5  1086.3  8971.5
GR1087.3  9121.5  1086.6  9135.9  1082.9  9154.2  1082.3  9171.5  1083.0  9321.5
G  ^83.0  9432.8  1077.1  9472.0  1076.6  9506.3  1078.1  9514.2  1077.9  9581.3
     8.4  9631.0  1077.9  9690.8  1081.2  9701.6  1078.6  9717.4  1078.6  9772.8
G  .d0.6  9814.5  1079.6  9914.8  1076.7  9931.7  1075.5  9952.9  1073.3 10019.8
GR1076.2 10053.7  1081.4 10076.3  1080.8 10144.3  1081.0 10212.5  1080.1 10271.7
GR1080.2 10320.6  1082.3 10377.6  1085.9 10398.8  1085.6 10456.2  1086.6 10506.3
GR1086.5 10521.7  1088.3 10562.9  1090.1 10583.1
HD13.952       10    7200   10600
X114.430       95  9171.4 10301.1    2175    2625 2523.57
X3                     7800    1093  109841    1093
GR1093.1  6835.1  1092.2  6860.3  1091.7  6910.4  1092.2  6957.4  1091.9  7059.0
GR1092.3  7116.1  1092.3  7152.4  1090.9  7160.9  1090.8  7169.2  1092.8  7174.9
GR1092.5  7260.4  1093.8  7374.4  1092.6  7386.9  1093.8  7410.4  1093.5  7460.4
GR1093.9  7560.4  1093.3  7610.4  1093.7  7668.1  1093.0  7731.7  1093.5  7769.7
GR1094.7  7824.0  1093.7  7871.2  1093.1  7953.2  1093.2  7972.8  1092.9  8030.2
GR1092.3  8062.0  1092.5  8076.9  1090.8  8088.0  1089.8  8098.1  1091.5  8116.9
GR1092.0  8194.9  1091.5  8233.1  1092.1  8266.0  1092.1  8279.7  1088.9  8296.7
GR1087.9  8349.4  1088.0  8356.7  1090.6  8393.8  1090.6  8428.0  1092.7  8449.0
GR1092.3  8510.5  1091.7  8551.5  1089.9  8570.9  1091.7  8660.6  1092.0  8710.6
GR1091.9  8760.6  1091.0  8810.6  1090.8  8860.6  1089.9  8937.3  1089.9  8990.6
GR1089.4  9009.0  1089.1  9040.5  1090.1  9061.5  1091.7  9112.8  1092.1  9171.4
GR1089.0  9184.9  1085.7  9213.3  1086.2  9236.5  1083.2  9251.1  1083.8  9327.2
GR1086.3  9348.5  1085.7  9383.3  1087.2  9425.3  1088.3  9477.5  1088.7  9561.3
GR1088.5  9633.6  1088.1  9691.5  1088.6  9737.7  1088.8  9773.2  1089.2  9789.8
GR1089.6  9843.8  1089.5  9884.1  1088.4  9985.5  1084.9 10126.0  1084.5 10166.4
GR1084.4 10207.6  1084.1 10261.8  1090.1 10301.1  1091.0 10347.0  1088.8 10352.7
GR1090.6 10361.5  1090.4 10414.8  1090.5 10466.9  1090.0 10556.3  1089.5 10568.8
GR1086.2 10593.2  1087.8 10622.9  1088.1 10675.2  1088.9 10720.5  1087.9 10808.1
GR1090.5 10831.2  1091.5 10847.9  1092.2 10912.7  1093.2 10940.6  1093.8 10984.2
HD14.430       10    8800 10301.1
X115.000       93  9346.3 10081.6    2700    3130  3009.7
X3     10
GR1104.8  9175.6  1096.6  9188.0  1095.7  9234.8  1098.2  9245.7  1098.1  9269.8
GR1098.5  9309.1  1098.0  9346.3  1094.9  9360.3  1093.9  9370.2  1092.0  9405.3
GR1093.4  9484.6  1095.2  9558.7  1095.7  9601.6  1095.6  9621.8  1096.0  9660.1
GR1094.7  9835.6  1093.9  9875.1  1091.8  9911.5  1091.4  9946.6  1092.3  9974.0
GR1090.7  9998.3  1088.8 10005.6  1089.2 10038.0  1089.1 10059.8  1097.0 10081.6
C     96.3 10186.6  1095.3 10240.5  1094.7 10362.1  1093.4 10456.6  1093.5 10476.4
      4.0 10495.3  1100.0 10526.1  1100.6 10561.4  1101.1 10679.6  1101.4 10895.6
G  .101.2 10958.4  1101.8 11017.3  1101.4 11192.8  1101.3 11274.2  1100.7 11355.6
GR1099.3 11392.9  1098.1 11400.2  1096.6 11405.2  1096.5 11410.1  1097.8 11419.6
GR1098.0 11427.6  1099.3 11434.3  1100.2 11446.3  1100.3 11453.6  1100.0 11457.0
GR1100.2 11466.1  1097.6 11479.7  1097.3 11498.8  1099.1 11540.6  1099.9 11574.4
GR1099.9 11593.7  1101.2 11685.2  1101.1 11736.6  1101.7 11756.7  1101.5 11782.1
GR1102.6 11787.3  1102.1 11802.9  1100.2 11815.5  1100.5 11836.4  1098.5 11890.8
GR1098.1 11942.1  1096.6 11993.5  1098.5 12029.4  1099.0 12044.9  1099.3 12096.3
GR1100.7 12125.7  1102.8 12147.6  1103.6 12163.7  1103.8 12179.4  1101.5 12212.6
```

```
GR1100.5 12250.4  1102.4 12357.6  1102.9 12367.0  1102.9 12400.4  1104.8 12422.9
GR1104.1 12475.6  1103.5 12492.4  1103.6 12504.2  1104.5 12515.0  1105.2 12558.7
GR1104.4 12624.8  1102.9 12637.3  1102.6 12663.8  1104.8 12712.9  1104.1 12745.6
    04.2 12758.9  1103.7 12782.7  1104.1 12821.1
    ..000      10  9346.3   10550
X115.094       93  9336.0 10125.1     495     495  496.49
X3                          9234.4    1102   11152    1102
GR1102.3  9230.9  1100.7  9234.4  1099.6  9253.3  1099.4  9273.1  1101.4  9293.4
GR1098.7  9317.6  1099.1  9336.0  1093.7  9355.8  1092.1  9366.0  1093.0  9426.0
GR1097.1  9590.7  1099.4  9609.4  1099.0  9653.4  1096.8  9670.4  1096.3  9694.4
GR1096.0  9881.3  1095.6  9930.6  1093.7  9945.8  1094.7  9959.7  1091.2  9976.5
GR1091.8 10019.8  1091.3 10056.5  1090.0 10076.6  1089.9 10097.2  1093.0 10112.9
GR1094.7 10125.1  1095.1 10135.1  1094.8 10150.0  1096.1 10160.0  1096.9 10171.4
GR1096.6 10189.8  1097.4 10207.6  1096.2 10234.1  1097.3 10263.0  1097.4 10348.5
GR1097.8 10420.4  1096.0 10524.2  1096.2 10548.3  1099.1 10566.9  1098.0 10582.9
GR1096.7 10640.5  1096.6 10663.0  1099.1 10693.7  1098.7 10706.9  1099.1 10769.4
GR1100.1 10779.4  1100.1 10782.7  1098.1 10796.7  1097.2 10800.0  1096.8 10811.3
GR1095.5 10828.1  1099.2 10841.3  1099.7 10841.7  1098.3 10856.1  1097.2 10861.7
GR1096.4 10911.4  1097.7 10930.8  1100.9 10959.2  1100.7 10987.0  1102.5 11002.3
GR1102.3 11152.4  1101.1 11308.7  1100.6 11317.7  1099.8 11395.4  1100.0 11416.9
GR1098.4 11464.5  1099.1 11568.4  1102.2 11721.5  1103.2 11770.3  1102.9 11927.4
GR1102.6 12022.7  1102.6 12073.5  1099.0 12224.6  1098.4 12273.7  1099.4 12426.5
GR1100.1 12527.4  1100.9 12565.4  1103.1 12583.4  1103.4 12600.3  1102.8 12615.4
GR1104.7 12634.5  1103.3 12708.4  1104.2 12732.9  1104.9 12768.7  1103.0 12777.2
GR1102.2 12792.8  1103.9 12819.1  1100.5 12842.5  1100.6 12850.8  1098.7 12868.4
GR1098.7 13008.3  1100.2 13018.1  1102.3 13066.3
HD15.094       10    9336   10400
NC  .040     .045    .035
X115.374       92  9832.4 10085.5    1650    1260 1478.26
X3                           9822    1106   10770    1106
GR1109.9  9821.4  1108.7  9824.0  1101.3  9832.4  1101.3  9833.3  1099.8  9834.5
GR1095.1  9843.1  1095.6  9879.3  1094.8  9894.1  1094.0  9928.3  1093.8 10008.7
GR1096.2 10025.3  1098.6 10044.5  1101.9 10085.5  1103.7 10130.8  1100.9 10141.2
GR1101.2 10190.2  1101.1 10222.8  1100.0 10232.8  1100.4 10239.1  1100.6 10263.2
GR1101.1 10270.2  1102.0 10295.0  1101.4 10351.6  1103.1 10379.5  1103.6 10390.8
GR1103.1 10399.7  1102.6 10462.4  1100.8 10473.6  1100.6 10504.5  1101.1 10560.8
GR1101.0 10594.4  1104.7 10617.7  1101.7 10628.9  1101.6 10756.7  1102.1 10871.3
GR1101.8 10976.0  1102.9 11028.1  1102.6 11089.9  1100.6 11101.7  1100.7 11127.9
GR1101.0 11129.8  1100.9 11177.9  1102.1 11228.6  1101.8 11278.7  1102.1 11328.8
    02.9 11370.9  1100.3 11386.4  1103.0 11442.1  1102.9 11446.9  1099.0 11480.4
    99.7 11492.2  1101.4 11509.6  1104.0 11532.1  1101.0 11548.0  1101.0 11581.2
GR1103.5 11613.3  1104.1 11633.1  1104.6 11679.6  1104.4 11729.7  1104.3 11830.0
GR1104.7 11930.2  1105.1 12030.4  1105.1 12130.7  1105.8 12230.9  1106.4 12331.1
GR1106.7 12431.4  1107.1 12481.5  1107.2 12586.9  1107.4 12631.8  1106.9 12646.8
GR1107.6 12665.1  1105.3 12712.8  1104.0 12730.7  1104.7 12791.0  1104.2 12832.3
GR1104.6 12916.3  1106.3 12931.1  1107.6 12952.5  1107.7 12961.5  1107.2 12982.6
GR1106.1 13004.6  1106.2 13024.9  1105.7 13035.9  1105.2 13041.7  1105.2 13082.9
GR1104.4 13133.0  1104.2 13183.1  1104.8 13233.2  1105.2 13333.5  1107.1 13385.1
GR1107.3 13394.5  1111.0 13422.7
HD15.374       10  9832.4   11650
NC  .040     .040    .035
             -----------CACTUS ROAD--EL MIRAGE LANDFILL-----
X115.719       91  9885.3 10059.7    1950    1635 1824.01
X3                           9385.2    1111   10150    1111
GR1111.0  9385.2  1102.4  9398.9  1098.3  9405.4  1099.7  9508.2  1099.8  9558.7
GR1100.2  9593.1  1101.5  9631.5  1101.6  9640.0  1106.0  9674.1  1106.8  9713.1
GR1106.8  9755.4  1106.4  9770.7  1105.6  9781.8  1107.9  9798.9  1108.1  9802.8
GR1108.2  9818.3  1107.6  9843.6  1108.7  9852.4  1109.4  9885.3  1106.4  9899.1
GR1105.4  9942.2  1094.1  9965.8  1093.7 10015.7  1098.6 10029.2  1098.8 10039.4
GR1114.5 10059.7  1117.7 10065.0  1119.6 10075.2  1118.7 10102.4  1123.6 10109.0
GR1128.1 10116.8  1128.5 10122.8  1132.0 10150.4  1132.9 10155.3  1133.7 10161.2
GR1126.3 10172.4  1105.8 10205.0  1106.5 10225.8  1106.5 10232.4  1106.7 10237.1
GR1106.7 10249.4  1106.5 10256.5  1105.8 10268.0  1106.1 10274.7  1105.4 10291.1
GR1105.4 10315.9  1104.6 10354.3  1104.2 10382.4  1104.6 10419.6  1104.4 10422.2
GR1109.6 10439.6  1110.1 10467.3  1110.1 10568.3  1110.6 10669.0  1111.3 10769.1
GR1110.6 10858.6  1110.6 10878.9  1111.2 10919.4  1110.7 10964.7  1111.5 11019.5
GR1111.8 11069.6  1110.7 11128.0  1111.0 11170.1  1109.5 11178.2  1104.8 11207.6
GR1105.4 11219.8  1105.5 11230.8  1104.0 11261.0  1103.7 11271.4  1105.0 11297.5
GR1105.2 11318.8  1103.9 11330.4  1104.5 11370.1  1104.3 11412.5  1106.1 11429.7
GR1108.0 11445.6  1108.6 11487.5  1109.3 11520.3  1109.4 11670.6  1109.4 11779.9
GR1109.3 11920.9  1109.5 11971.0  1109.6 12071.2  1109.8 12171.3  1109.7 12321.6
GR1110.1 12348.9  1110.1 12397.0  1109.1 12471.8  1109.1 12572.0  1109.0 12822.3
GR1110.5 12884.5
HD15.719       10    9390   10055
X1..099        92  9804.0 10081.1    2010    2005 2002.13
3                            9192    1178   10300    1178
X.                           9200   10200
GR1132.1  9191.9  1126.8  9200.4  1111.0  9233.0  1104.9  9259.9  1105.0  9274.3
GR1104.8  9282.4  1106.9  9313.0  1108.3  9366.1  1109.2  9418.0  1109.2  9466.8
GR1110.2  9517.2  1109.5  9549.3  1109.5  9567.6  1108.4  9606.1  1105.8  9624.0
GR1106.1  9629.4  1106.4  9668.4  1106.2  9694.8  1106.5  9705.3  1107.2  9716.8
GR1106.8  9725.8  1106.6  9752.8  1106.8  9768.3  1106.4  9769.3  1105.5  9804.0
GR1102.0  9815.8  1100.9  9929.6  1102.0  9942.0  1101.6 10021.2  1100.8 10043.9
GR1120.7 10081.1  1121.5 10083.0  1122.9 10120.9  1160.4 10222.8  1176.1 10273.2
```

```
GR1177.9 10295.5  1172.6 10323.6  1162.9 10344.4  1159.3 10352.7  1160.0 10368.4
GR1156.1 10377.4  1137.3 10424.4  1115.3 10474.8  1112.0 10486.0  1110.0 10491.9
GR1107.4 10518.8  1106.8 10547.6  1106.8 10562.5  1108.2 10573.5  1111.5 10624.5
GR     .6 10670.3  1115.2 10686.0  1115.7 10720.9  1115.7 10798.4  1115.3 10820.9
GR     .5 10834.1  1113.1 10879.9  1113.3 10936.2  1113.1 10978.8  1111.9 11028.4
GR1109.9 11050.0  1113.4 11069.5  1113.7 11079.3  1115.5 11104.9  1115.1 11109.6
GR1115.2 11134.0  1114.9 11177.8  1115.1 11219.4  1114.8 11370.9  1114.1 11429.1
GR1113.5 11456.5  1111.4 11479.4  1111.7 11481.5  1113.2 11504.1  1113.1 11516.6
GR1112.4 11531.3  1112.5 11549.4  1113.1 11567.8  1113.4 11729.2  1113.2 11911.4
GR1113.5 12079.2  1113.9 12179.2  1114.1 12304.0  1114.4 12329.3  1114.1 12501.3
GR1113.9 12675.5  1114.0 12727.4  1114.2 12746.8  1114.1 12929.3  1114.6 13041.6
GR1115.1 13090.7  1115.1 13122.1
HD16.099      10     9200   10200
NC                             0.3      0.5
X116.482      90  9781.9 10219.8     1980     2160 2026.23
X3                            9750   1127.5    10290  1127.5
XL                            9600    10500
GR1140.7  9305.3  1139.9  9363.5  1139.9  9370.4  1138.7  9446.0  1138.7  9449.5
GR1139.3  9451.2  1138.5  9456.3  1137.2  9528.1  1136.8  9537.1  1137.1  9563.8
GR1136.6  9616.0  1135.9  9622.7  1134.7  9645.4  1133.3  9704.0  1131.9  9731.2
GR1130.9  9750.4  1130.6  9765.2  1126.1  9774.7  1122.1  9781.9  1117.0  9795.4
GR1114.2  9802.5  1111.1  9816.2  1109.7  9859.8  1108.9  9880.3  1108.6  9915.4
GR1107.7  9931.8  1105.6  9947.6  1105.8  9985.2  1108.0 10015.1  1109.8 10086.8
GR1108.8 10140.7  1109.1 10210.9  1117.6 10219.8  1119.6 10222.0  1120.1 10266.0
GR1121.6 10270.4  1126.9 10287.0  1127.5 10289.6  1127.6 10293.3  1127.6 10326.1
GR1127.6 10334.5  1126.1 10443.1  1125.8 10450.5  1125.8 10455.8  1126.2 10510.5
GR1124.9 10570.5  1124.9 10577.4  1124.2 10651.5  1124.5 10662.8  1124.1 10687.3
GR1123.9 10696.8  1123.4 10708.0  1123.0 10739.0  1122.7 10753.8  1122.2 10775.4
GR1121.9 10780.7  1121.5 10782.6  1119.5 10822.5  1119.4 10838.0  1119.6 10875.6
GR1118.8 10994.6  1118.6 11064.6  1118.2 11105.9  1117.3 11151.7  1116.3 11206.3
GR1116.2 11210.6  1117.1 11245.1  1116.8 11253.8  1117.1 11286.7  1118.3 11329.8
GR1118.3 11349.3  1118.5 11378.5  1118.7 11406.2  1119.3 11448.7  1119.7 11562.0
GR1120.2 11569.8  1120.5 11673.4  1120.6 11689.2  1120.7 11754.4  1121.0 11817.9
GR1121.1 11822.8  1122.0 11961.4  1122.4 11986.6  1122.8 12071.0  1123.0 12098.0
GR1123.1 12149.2  1123.1 12151.2  1123.2 12191.5  1124.0 12254.5  1124.0 12264.5
HD16.482      10  9781.9   10220
X116.506      72  9768.0 10245.4      125      125  126.72
X3    10
XL                            9500    10300
G     3.1  9053.0  1142.5  9098.2  1142.5  9101.6  1141.4  9219.0  1139.9  9328.3
G     0.0  9334.9  1139.6  9379.4  1139.0  9386.3  1138.3  9448.3  1138.4  9482.6
GR1138.0  9525.0  1137.9  9526.8  1136.5  9625.1  1135.2  9710.2  1135.3  9731.2
GR1126.2  9750.8  1124.5  9756.7  1122.2  9768.0  1113.9  9802.5  1112.2  9807.7
GR1110.1  9853.7  1109.1  9878.2  1107.6  9903.9  1106.7  9917.3  1105.4  9933.8
GR1105.6  9939.1  1105.9  9960.5  1105.8  9970.9  1106.6  9982.4  1108.1 10007.8
GR1109.2 10031.5  1110.0 10081.1  1110.5 10104.0  1110.0 10129.9  1110.1 10176.4
GR1110.7 10177.1  1113.8 10221.4  1122.4 10245.4  1122.5 10247.4  1123.5 10250.2
GR1128.1 10263.0  1128.4 10265.0  1128.4 10281.1  1128.5 10281.8  1127.8 10351.1
GR1126.6 10446.0  1125.5 10564.8  1124.7 10654.0  1124.1 10726.7  1123.8 10775.9
GR1123.5 10814.3  1123.6 10816.6  1123.3 10856.9  1123.3 10871.9  1123.0 10903.5
GR1122.9 10905.5  1122.6 10987.6  1122.4 11107.4  1122.0 11206.5  1118.3 11230.6
GR1117.6 11244.9  1118.5 11289.8  1118.6 11315.8  1119.5 11330.5  1119.6 11345.0
GR1120.1 11374.6  1120.1 11411.2  1122.2 11426.3  1121.8 11440.2  1121.8 11474.4
GR1121.9 11475.7  1121.8 11575.0
HD16.506      10     9700   10300
    **************DOWNSTREAM END OF GRAND-1************************************
    ****************************************************************************
NC  0.05    0.05    0.04     0.1     0.3
X116.612      84  9808.2 10161.2     627     342     581
X3                            9793    1124   10286    1124
XL                           9808.2   10300
GR1127.9  9793.5  1112.1  9808.2  1108.8  9916.8  1109.3  9920.2  1109.8  9926.5
GR1108.3  9944.2  1108.7  9949.8  1108.9  9958.7  1110.3  9983.6  1109.9 10016.8
GR1111.6 10034.3  1111.7 10055.6  1112.1 10084.9  1111.7 10105.4  1109.1 10113.2
GR1109.0 10136.8  1115.6 10161.2  1117.3 10167.6  1122.9 10189.9  1122.9 10198.4
GR1123.1 10219.0  1123.9 10236.5  1124.5 10279.3  1124.5 10286.5  1124.1 10293.7
GR1123.5 10310.0  1120.1 10319.6  1117.6 10325.9  1118.3 10331.4  1118.6 10336.5
GR1117.7 10377.7  1117.6 10386.5  1116.6 10426.9  1116.5 10436.5  1116.9 10486.5
GR1116.6 10525.2  1116.5 10536.5  1116.4 10574.4  1116.2 10586.5  1115.6 10623.6
GR1115.7 10636.5  1115.6 10677.3  1122.1 10695.6  1121.1 10702.1  1121.4 10723.8
GR1121.7 10738.6  1121.7 10748.4  1121.8 10788.7  1125.6 10806.5  1125.6 10818.0
GR1121.5 10827.9  1122.7 10837.7  1120.9 10840.1  1121.4 10886.5  1121.6 10918.7
GR1121.7 10936.6  1121.3 10986.6  1121.4 11017.0  1121.0 11036.6  1120.3 11066.2
GR1119.8 11086.6  1120.5 11115.4  1119.7 11136.6  1119.7 11158.5  1119.2 11186.6
GR   19.4 11198.8  1118.5 11225.0  1118.2 11247.2  1117.9 11273.5  1118.1 11275.0
(     8.5 11296.7  1118.3 11304.3  1118.4 11316.1  1118.5 11334.1  1118.7 11352.2
G    18.5 11355.6  1116.1 11376.8  1117.1 11399.9  1117.9 11407.7  1120.2 11421.8
GR1120.6 11423.7  1122.6 11446.9  1125.2 11472.1  1126.3 11481.4
HD16.612      25    10090   10800            1090    10090    10700
NC  0.05    0.05    0.04     0.1     0.3
X116.990      82  9810.0 10135.4    1990    1985    1993
X3                            9725    1130   10150    1130
XL                            9800   12400
GR1157.3  9725.4  1157.1  9748.5  1113.3  9810.0  1112.4  9829.0  1115.1  9867.1
```

```
GR1112.0  9880.5  1110.9  9928.1  1111.5  9994.8  1115.0 10039.8  1114.4 10097.1
GR1118.5 10108.0  1118.5 10118.8  1121.6 10128.1  1125.6 10135.4  1132.6 10146.3
GR1130.4 10170.5  1130.8 10182.4  1124.6 10201.0  1122.2 10231.9  1122.1 10282.5
    23.2 10329.7  1129.1 10340.5  1124.0 10350.5  1124.0 10382.8  1132.1 10397.2
    28.4 10411.7  1126.7 10420.9  1126.1 10573.0  1127.9 10648.2  1127.9 10866.8
GR1128.0 11032.5  1127.6 11073.1  1128.1 11082.5  1127.8 11137.2  1126.8 11609.9
GR1126.7 11843.9  1126.8 11988.7  1129.0 12041.8  1125.8 12048.3  1128.5 12056.1
GR1127.1 12097.2  1127.8 12170.8  1124.8 12180.6  1119.2 12188.4  1116.2 12191.6
GR1111.2 12195.4  1090.6 12206.1  1092.1 12285.4  1093.9 12332.8  1101.0 12334.5
GR1112.0 12337.1  1125.2 12341.0  1125.1 12367.4  1125.8 12393.1  1124.4 12431.4
GR1123.9 12507.9  1123.2 12529.8  1123.6 12585.8  1127.2 12630.0  1136.9 12660.9
GR1128.6 12676.3  1127.0 12692.1  1125.9 12746.2  1127.9 12795.1  1130.4 12813.6
GR1130.5 12826.3  1128.3 12904.8  1129.2 12916.6  1127.6 12934.8  1125.7 12966.4
GR1126.6 12979.5  1125.4 13179.1  1126.4 13287.4  1124.9 13341.6  1125.6 13503.0
GR1125.2 13561.0  1120.4 13574.0  1121.1 13632.4  1128.6 13654.8  1128.6 13664.2
GR1130.6 13675.3  1130.2 13709.1
HD16.990      25    9800   12650            1090   10100   12650
X117.458      92  9370.6 10225.3    3035    1705 2468.67
X3                         8808    1132   10334    1132
XL                         9000   11800
GR1137.5  8689.6  1134.6  8719.5  1138.8  8738.2  1138.3  8746.5  1132.8  8765.0
GR1132.5  8786.3  1136.5  8797.0  1135.7  8812.4  1132.6  8846.8  1146.8  8948.8
GR1137.6  8976.0  1137.4  9003.3  1130.1  9014.1  1126.1  9023.7  1121.7  9049.0
GR1121.4  9062.9  1123.1  9069.1  1123.0  9091.0  1121.4  9095.5  1125.3  9174.2
GR1123.9  9242.4  1126.0  9291.7  1125.2  9300.9  1126.4  9370.6  1119.7  9388.4
GR1118.6  9489.5  1122.0  9525.5  1119.9  9829.2  1120.4  9840.3  1116.5  9847.2
GR1118.6  9925.1  1121.7  9935.7  1119.6  9939.4  1120.4  9962.7  1124.5  9978.6
GR1128.1 10094.0  1125.2 10109.8  1128.1 10171.2  1127.7 10217.9  1129.3 10225.3
GR1125.1 10246.2  1125.2 10254.6  1130.8 10271.4  1128.7 10284.2  1129.0 10345.0
GR1131.8 10357.4  1134.6 10442.8  1133.4 10459.5  1136.5 10467.5  1132.9 10480.5
GR1123.2 10589.7  1119.1 10603.6  1117.6 10659.7  1118.4 10675.0  1113.7 10691.1
GR1113.3 10706.4  1117.4 10722.8  1113.5 10786.6  1110.8 10803.4  1107.4 10929.4
GR1112.4 11229.4  1111.8 11307.7  1095.5 11325.7  1094.8 11383.2  1096.6 11445.3
GR1091.5 11460.7  1091.2 11474.0  1092.6 11478.9  1091.4 11483.8  1092.6 11484.8
GR1095.0 11527.9  1092.8 11590.0  1134.9 11640.7  1147.3 11704.2  1131.9 11737.5
GR1130.9 12038.7  1131.0 12346.0  1131.0 12565.0  1130.1 12892.2  1130.7 13055.7
GR1127.3 13066.0  1127.5 13084.7  1131.6 13098.9  1128.5 13100.4  1126.8 13108.6
GR1129.6 13120.3  1131.2 13453.4  1131.0 13777.2  1130.4 14088.7  1129.6 14116.9
GR1133.3 14132.7  1133.3 14165.7
     458      30    8740   12500            1090    8740   12500
     ***************DOWNSTREAM END GREENWAY-1*********************************
     ****************************************************************************
X117.638      89  9774.7 10288.4     955     895  949.45
X3                         8744    1136   10386    1136
XL                         9100   11100
GR1139.1  8744.2  1138.7  8811.6  1135.9  8827.7  1135.6  8945.5  1136.7  8959.6
GR1137.0  9056.9  1139.6  9082.2  1137.1  9098.5  1132.9  9176.5  1132.9  9197.8
GR1130.0  9207.3  1130.0  9242.4  1130.0  9258.8  1130.3  9270.5  1130.0  9293.0
GR1130.0  9313.8  1130.0  9348.6  1130.0  9445.5  1130.0  9464.8  1133.5  9483.8
GR1130.0  9498.2  1130.0  9545.3  1130.0  9556.0  1130.0  9566.8  1130.0  9589.7
GR1130.0  9610.2  1130.0  9612.2  1130.0  9695.5  1130.0  9750.6  1130.0  9768.6
GR1130.8  9774.7  1130.0  9798.8  1130.0  9831.0  1130.0  9911.6  1131.0  9927.0
GR1130.0  9938.1  1130.0  9966.8  1131.7  9977.6  1130.0 10002.0  1130.0 10049.6
GR1130.0 10100.5  1132.1 10124.7  1130.1 10136.8  1132.3 10166.7  1133.3 10195.3
GR1133.7 10274.7  1134.6 10288.4  1133.2 10316.0  1134.7 10324.9  1136.3 10359.3
GR1135.6 10373.5  1139.6 10386.4  1134.4 10413.9  1126.8 10420.6  1111.3 10442.5
GR1110.6 10451.1  1108.6 10458.0  1106.8 10460.6  1107.9 10551.4  1110.5 10612.2
GR1108.3 10646.4  1107.1 10711.3  1107.3 10794.1  1106.4 10810.0  1108.4 11000.6
GR1123.6 11024.4  1136.5 11040.6  1134.4 11063.6  1138.3 11074.3  1132.3 11096.7
GR1133.8 11110.6  1133.4 11218.3  1134.9 11254.8  1134.2 11502.9  1134.1 11714.3
GR1133.7 11962.3  1134.9 12189.4  1135.0 12393.4  1135.0 12643.3  1134.4 12877.2
GR1134.2 13094.3  1134.1 13099.2  1129.9 13109.2  1130.4 13128.3  1133.2 13138.4
GR1131.3 13142.8  1132.2 13161.0  1134.1 13405.8  1135.7 13615.4
HD17.638      25    8800   12580            1105    8800   12580
NC 0.045    0.05   0.035
X117.821      92  9764.8 10227.7     950     970  964.24
X3                         8350    1140   10270    1140
XL                         8600   10800
GR1142.2  8181.7  1138.9  8323.3  1139.0  8357.4  1140.1  8379.7  1138.9  8433.5
GR1133.6  8448.4  1133.8  8481.3  1138.1  8495.5  1139.6  8524.0  1139.8  8553.7
GR  1137  8680.0    1137  8706.9    1137  8728.5    1137  8806.5    1137  8864.8
GR  1137  8885.8    1137  8935.3    1137  8954.3    1137  8999.6    1137  9015.8
GR  1137  9029.4    1137  9041.5    1137  9061.5    1137  9075.0    1137  9101.1
GR  1137  9121.6    1137  9152.6    1137  9190.6    1137  9205.7    1137  9239.3
GR  1137  9292.3    1137  9302.1    1137  9314.9    1137  9374.8    1137  9394.9
C    137  9478.4    1137  9520.7    1137  9615.2    1137  9666.0    1137  9703.0
GR  1137  9750.4    1137  9764.8  1130.0  9788.3  1130.0  9908.4  1133.2  9922.3
GR1130.0  9938.1  1130.0 10013.2  1130.0 10026.1  1130.0 10055.6  1130.0 10120.9
GR1130.9 10131.5  1131.9 10156.1  1136.0 10173.4  1137.0 10180.8  1130.4 10207.4
GR1138.7 10227.7  1137.2 10236.0  1136.3 10321.5  1134.1 10334.8  1133.3 10358.4
GR1132.5 10362.9  1132.2 10403.1  1133.6 10425.1  1133.8 10683.3  1133.9 10747.7
GR1132.3 10790.0  1138.8 10814.3  1137.7 10865.9  1137.8 11062.6  1148.0 11086.7
GR1138.6 11108.9  1138.1 11397.3  1138.1 11667.3  1138.6 11927.3  1138.9 12352.4
GR1138.2 12639.4  1137.5 12965.5  1137.1 13225.2  1137.0 13271.7  1134.3 13279.9
```

```
GR1134.1 13307.6  1137.0 13316.7  1135.6 13320.9  1136.5 13346.2  1138.0 13614.0
GR1141.1 13886.5  1140.1 14151.7  1139.5 14364.5  1142.8 14390.0  1143.4 14431.5
GR1146.2 14445.9  1146.2 14449.6
    .821      25    8170   11800            1107    8185   11800
    ************UPSTREAM END OF GRAND-1*****************************************
   ****************************************************************************
X118.275      93  9752.1 10210.5    2170    2440 2398.82
X3                         8750    1144   10715    1144
XL                         8800   10650
GR1143.5  8008.5  1138.7  8023.5  1140.7  8037.9  1138.5  8046.9  1138.0  8261.2
GR1137.8  8312.7  1136.6  8325.4  1137.3  8372.6  1137.4  8512.4  1139.6  8516.3
GR1139.8  8520.2  1138.5  8524.5  1139.6  8555.1  1140.4  8562.2  1137.8  8568.8
GR1138.0  8602.0  1142.3  8636.5  1143.8  8662.1  1149.7  8694.9  1150.4  8704.1
GR1148.8  8717.2  1149.0  8724.0  1151.0  8737.9  1149.3  8749.1    1142  8787.2
GR  1142  8803.8    1142  8809.4    1142  8848.8    1142  8871.5    1142  8880.5
GR  1142  8891.0    1142  8999.9    1142  9010.1    1142  9015.7    1142  9188.4
GR  1142  9235.9    1142  9293.2    1142  9329.0    1142  9407.9    1142  9476.4
GR  1142  9483.7    1142  9502.0    1142  9506.1    1142  9515.3  1142.6  9521.5
GR1139.8  9534.5  1139.3  9579.9  1140.1  9637.4  1141.2  9662.8  1141.7  9699.4
GR1139.5  9752.1  1130.1  9787.5  1134.1  9819.9  1134.1  9834.1  1138.9  9863.8
GR1137.4  9948.0  1135.1  9965.1  1134.3 10061.6  1136.5 10084.7  1137.3 10108.8
GR1136.1 10140.2  1138.4 10151.1  1140.1 10210.5  1139.6 10414.7  1138.8 10516.9
GR1137.7 10554.5  1137.1 10611.8  1137.6 10622.8  1139.7 10635.4  1140.1 10643.9
GR1146.7 10661.8  1146.0 10695.0  1143.3 10731.8  1144.1 10758.2  1146.7 10782.6
GR1146.7 10889.1  1146.2 10898.5  1146.9 10915.6  1145.4 10956.8  1145.8 10994.8
GR1143.8 11004.1  1142.2 11023.1  1144.1 11057.2  1143.6 11063.0  1146.8 11096.6
GR1146.3 11118.3  1147.3 11366.8  1148.0 11580.8  1148.3 11795.4  1148.6 11993.8
GR1149.5 12044.0  1149.4 12073.0  1149.4 13000.0
HD18.275      25    8010   12900            1120    8010   12900
X118.839      92  9787.8 10337.0    2635    3185 2882.75
X3                         9250    1156   10375    1156
XL                         9300   10350
GR1159.3  8035.3  1160.1  8038.6  1154.0  8081.5  1152.0  8142.0  1151.8  8165.7
GR1145.2  8172.5  1142.4  8175.7  1135.6  8182.7  1126.5  8192.5  1119.8  8199.1
GR1119.8  8265.6  1136.1  8284.0  1141.6  8289.5  1151.1  8298.1  1150.6  8339.2
GR1152.4  8343.3  1147.4  8393.6  1149.7  8415.2  1150.8  8439.6  1151.2  8443.4
GR1149.9  8483.6  1144.3  8492.4  1143.1  8504.6  1142.9  8518.4  1143.5  8526.7
GR1143.5  8539.0  1141.4  8542.8  1138.4  8549.1  1139.2  8560.7  1139.1  8569.3
GR1143.3  8578.2  1146.8  8592.3  1149.9  8594.8  1150.7  8597.1  1150.7  8600.4
    8.7  8619.6  1148.7  8627.7  1149.8  8634.1  1151.3  8649.9  1151.6  8695.7
G   .50.9  8746.0  1150.6  8796.3  1149.1  8837.3  1149.4  8854.9  1151.4  8869.2
GR1152.3  8960.5  1152.0  8966.7  1148.3  9004.8  1150.0  9017.9  1151.0  9023.1
GR1147.6  9041.7  1147.0  9087.8  1149.7  9104.9  1149.5  9108.5  1149.7  9149.0
GR1150.7  9199.0  1151.4  9285.5  1151.8  9359.0  1154.0  9367.0  1154.7  9374.4
GR1151.2  9388.1  1151.3  9420.2  1150.0  9435.1  1149.5  9446.3  1151.6  9476.4
GR1150.9  9511.1  1150.8  9556.2  1151.8  9665.4  1152.1  9705.2  1152.8  9716.6
GR1148.6  9747.1  1147.5  9774.5  1149.2  9787.8  1147.8  9825.0  1145.3  9845.2
GR1145.1  9901.6  1147.0  9913.2  1146.0  9962.2  1145.0 10056.4  1144.6 10160.9
GR1145.3 10164.0  1146.7 10168.0  1146.8 10189.4  1146.1 10196.0  1145.1 10199.7
GR1144.9 10310.7  1146.1 10321.9  1147.1 10325.1  1147.5 10331.4  1150.1 10337.0
GR1152.2 10340.5  1159.1 10354.4
HD18.839      25    8150   10350            1120    8150   10250
    ****************UPSTREAM END OF GREENWAY-1*******************************
    ****************************************************************************
NC                           0.3     0.5
              -------------BELL ROAD-----------
X118.962      74    9840 10223.7     540     700  644.97
X3                         9391    1156   10535    1156
GR1162.0  7916.7  1162.2  7934.1  1162.0  7947.4  1162.3  7963.7  1162.3  8037.4
GR1162.5  8045.6  1162.1  8054.3  1162.2  8112.7  1162.3  8118.1  1162.7  8160.7
GR1162.6  8162.2  1162.8  8185.1  1163.0  8206.7  1163.0  8235.2  1163.4  8289.8
GR1163.4  8330.1  1163.8  8411.9  1163.8  8427.7  1163.5  8463.4  1156.6  8465.2
GR1147.5  8466.9  1147.8  8479.5  1147.5  8495.9  1158.1  8497.9  1163.6  8500.4
GR1163.5  8506.8  1163.7  8550.6  1163.7  8564.1  1163.4  8612.3  1163.2  8634.6
GR1163.1  8674.2  1162.7  8708.9  1163.1  8730.2  1162.7    8753  1162.3  8791.3
GR1162.1  8805.5  1162.3  8856.6  1162.1  8905.9  1161.9  8938.3  1162.0  8955.7
GR1162.2  8966.6  1162.3  9034.1  1162.0  9067.5  1162.5  9102.2  1162.6  9121.3
GR1162.9  9141.9  1165.0  9241.5  1165.6  9276.3  1165.9  9301.3  1165.8  9317.4
GR1165.8  9320.2  1168.2  9391.2  1160.1  9405.6  1149.0    9435  1150.4    9840
GR1147.3  9848.8  1147.4  9882.3  1149.1    9948  1148.1 10060.6  1149.8   10071
GR1150.1 10072.1  1149.1 10223.7  1148.5 10226.4  1146.2 10251.3  1146.8 10260.2
GR1148.4 10281.3  1148.5 10286.7  1147.0 10415.8  1148.2 10465.7  1170.7 10522.1
GR1170.9 10523.2  1170.1 10524.3  1169.5 10531.5  1169.5 10535.6
HD18.962      10    9440   10480
NC   045    .045    .035
X    066      93  9885.7 10349.1     485     580  551.29
XL    10
GR1163.5  8083.9  1164.7  8087.8  1162.4  8094.0  1156.1  8106.9  1156.7  8154.1
GR1156.9  8196.9  1157.7  8246.2  1158.0  8347.1  1159.1  8361.4  1159.7  8398.1
GR1161.6  8466.8  1162.4  8504.6  1162.6  8548.1  1163.1  8598.3  1162.9  8698.6
GR1163.1  8799.0  1162.5  8899.3  1161.5  9007.9  1159.8  9077.7  1159.1  9094.7
GR1159.3  9118.3  1159.0  9128.2  1156.9  9150.2  1153.4  9222.0  1153.9  9233.7
GR1157.2  9242.5  1163.1  9259.9  1165.5  9268.0  1167.6  9277.0  1166.7  9289.7
GR1166.5  9297.0  1167.0  9302.8  1166.8  9310.8  1167.3  9320.5  1160.4  9342.3
```

```
GR1157.9  9349.5  1154.8  9366.9  1151.2  9379.2  1150.8  9401.6  1150.6  9451.2
GR1151.3  9476.5  1153.8  9520.5  1152.9  9546.9  1152.3  9554.2  1152.0  9579.5
GR1152.2  9649.0  1153.4  9673.0  1153.7  9700.5  1153.2  9744.0  1153.5  9777.6
G    4.7  9817.4  1154.3  9830.0  1155.5  9870.1  1155.0  9885.7  1149.8  9901.2
(     0.3  9953.8  1150.8  9978.4  1150.6  9989.3  1151.4 10002.8  1151.6 10058.7
GR1151.3 10080.0  1149.7 10105.8  1149.9 10115.9  1151.6 10129.9  1151.5 10161.9
GR1150.7 10188.8  1150.6 10203.9  1150.8 10206.7  1151.3 10246.3  1149.4 10261.9
GR1151.5 10282.4  1149.8 10327.8  1154.3 10349.1  1154.6 10379.5  1155.9 10398.0
GR1156.1 10456.1  1154.5 10497.0  1154.0 10504.9  1153.0 10536.3  1152.0 10555.2
GR1152.2 10557.5  1149.4 10595.4  1149.5 10626.8  1152.2 10633.3  1154.3 10637.1
GR1151.6 10657.6  1150.2 10684.7  1153.5 10704.5  1156.5 10711.0  1168.4 10729.4
GR1168.3 10747.9  1169.2 10755.7  1169.4 10778.8
HD19.066      10  9302.8   10398
NC 0.045   0.045   0.035     0.1     0.3
X119.446      91  9592.8 10078.6    1840    2400 2473.39
X3    10
GR1169.9  8715.4  1169.9  8718.3  1171.0  8722.0  1169.3  8727.7  1164.2  8740.0
GR1163.7  8777.7  1164.7  8830.3  1165.4  8878.7  1164.8  8894.2  1159.3  8920.9
GR1159.0  8926.5  1159.4  8963.4  1159.6  8989.2  1160.9  9002.5  1161.2  9027.9
GR1162.1  9078.0  1162.2  9117.5  1162.2  9157.2  1160.1  9174.8  1159.7  9206.1
GR1161.0  9215.2  1160.7  9244.8  1160.8  9258.0  1161.2  9278.1  1161.2  9328.2
GR1161.1  9378.2  1160.9  9407.9  1161.7  9419.9  1160.6  9446.9  1160.0  9482.0
GR1160.5  9527.6  1161.3  9539.0  1162.7  9566.6  1162.8  9571.4  1161.1  9578.3
GR1160.3  9587.4  1159.0  9592.8  1155.9  9603.1  1156.0  9643.3  1156.2  9691.2
GR1157.5  9712.8  1158.0  9725.2  1157.8  9765.9  1157.9  9790.0  1158.4  9878.6
GR1158.7  9911.1  1159.4  9930.4  1158.7  9978.7  1159.4 10028.7  1159.0 10056.2
GR1162.8 10078.6  1163.7 10128.8  1164.2 10178.9  1164.0 10222.3  1163.9 10228.9
GR1163.8 10279.0  1163.8 10318.4  1163.8 10329.0  1163.3 10356.3  1161.4 10383.8
GR1163.0 10429.1  1162.8 10479.2  1162.5 10529.2  1163.1 10579.3  1163.2 10629.3
GR1163.6 10702.6  1163.1 10750.7  1163.2 10829.5  1163.3 10879.5  1163.0 10915.1
GR1162.7 10959.3  1162.4 10982.8  1159.7 11003.4  1159.3 11029.6  1159.3 11036.6
GR1159.7 11075.7  1159.2 11115.4  1156.7 11130.8  1156.9 11158.2  1159.1 11173.3
GR1159.4 11179.5  1158.2 11202.1  1157.6 11233.6  1157.2 11242.5  1157.9 11279.9
GR1157.7 11282.7  1155.7 11323.5  1157.1 11328.7  1175.6 11349.4  1179.6 11355.8
GR1180.1 11361.8
HD19.446      10  9174.8 10915.1
         ---------UNION HILLS--------
X119.920      92  9744.6 10129.1    2510    2450 2499.03
X3    10
(     8.8  8936.2  1171.6  8955.1  1171.3  8971.0  1171.5  8979.1  1170.6  9010.6
(     6.2  9025.5  1165.5  9076.6  1165.2  9081.9  1164.0  9087.0  1164.6  9106.2
GR1165.7  9113.5  1166.0  9136.5  1167.7  9149.8  1167.2  9187.5  1169.4  9202.4
GR1169.9  9229.1  1169.5  9379.1  1170.5  9429.1  1170.2  9479.1  1170.7  9529.1
GR1170.3  9615.1  1169.1  9744.6  1164.4  9765.4  1164.0  9770.7  1164.4  9779.1
GR1166.0  9979.1  1166.0  9992.3  1168.1 10020.8  1168.4 10037.3  1168.1 10100.3
GR1168.3 10129.1  1167.2 10203.9  1169.4 10261.7  1171.0 10283.1  1169.9 10298.8
GR1169.5 10326.3  1168.8 10347.5  1169.2 10396.8  1167.9 10408.8  1166.6 10448.3
GR1166.5 10520.7  1168.2 10582.4  1168.0 10634.0  1167.0 10669.2  1167.2 10680.6
GR1165.8 10699.5  1167.0 10718.9  1167.8 10722.3  1165.2 10737.5  1166.9 10752.3
GR1166.4 10766.8  1164.3 10783.8  1164.0 10789.8  1165.0 10802.0  1165.1 10823.2
GR1163.8 10843.8  1164.3 10871.0  1163.9 10886.4  1163.1 10895.5  1162.6 10925.7
GR1163.9 10934.7  1164.0 10946.7  1165.5 10956.8  1168.4 10991.5  1166.2 11000.3
GR1164.6 11008.2  1163.7 11016.1  1165.2 11030.7  1165.2 11074.7  1166.8 11106.6
GR1172.2 11130.2  1172.1 11229.1  1171.1 11429.1  1171.0 11579.1  1170.6 11642.1
GR1166.0 11658.7  1167.9 11676.5  1168.3 11683.2  1167.3 11706.3  1167.8 11716.6
GR1168.9 11723.1  1168.6 11738.0  1167.8 11743.5  1168.4 11755.8  1169.8 11771.2
GR1171.2 11779.0  1172.8 11784.1  1172.7 11786.2  1176.5 11794.7  1177.7 11801.3
GR1187.7 11829.2  1188.1 11831.7
HD19.920      10  9744.6 11130.2
X120.579      90  9825.6 10324.2    3420    3400 3482.23
X3    10
GR1187.1  8154.9  1187.7  8167.0  1186.3  8171.3  1181.5  8181.2  1180.5  8183.9
GR1181.5  8211.3  1182.1  8225.6  1180.3  8267.5  1180.0  8285.3  1180.1  8291.4
GR1181.6  8304.5  1180.1  8325.6  1180.2  8333.6  1181.1  8375.6  1180.9  8475.6
GR1180.8  8525.6  1180.8  8533.2  1180.7  8575.6  1180.6  8616.2  1180.7  8639.9
GR1179.3  8655.2  1180.4  8665.9  1180.7  8676.6  1180.9  8725.6  1181.0  8732.8
GR1181.0  8775.6  1180.9  8782.8  1180.8  8825.6  1181.2  8868.7  1181.2  8882.5
GR1180.2  8925.6  1179.0  8975.6  1178.6  8985.4  1180.8  9024.9  1181.1  9067.4
GR1181.2  9082.0  1182.2  9125.3  1182.1  9132.1  1180.2  9175.6  1179.4  9207.4
GR1179.4  9223.9  1179.0  9275.6  1178.1  9306.4  1177.8  9314.2  1178.8  9325.0
GR1179.0  9331.8  1178.4  9366.8  1178.6  9375.6  1178.1  9387.0  1178.3  9409.4
GR1178.2  9419.5  1178.3  9425.2  1177.9  9429.4  1176.8  9470.7  1177.2  9504.7
GR1179.5  9516.6  1180.9  9522.3  1181.2  9526.6  1181.0  9570.8  1181.3  9593.3
GR1181.6  9605.0  1181.1  9633.2  1180.5  9675.1  1180.8  9698.9  1180.9  9705.1
GR    79.3  9722.0  1179.4  9728.3  1178.3  9740.1  1177.1  9774.3  1178.1  9796.9
(     8.8  9823.3  1179.0  9825.6  1177.7  9860.0  1176.0  9920.5  1175.8  9925.6
G     5.8  9930.5  1176.0  9975.6  1174.7 10003.0  1174.8 10030.3  1175.0 10078.6
GR1174.6 10130.3  1174.1 10161.8  1172.7 10174.0  1172.6 10202.0  1172.4 10229.9
GR1171.9 10275.6  1172.4 10309.2  1176.7 10322.2  1177.8 10324.2  1194.8 10345.6
HD20.579      10  9705.1 10324.2
   ****************DOWNSTREAM END OF BEARDSLEY-1*****************************
   ************************************************************************
X120.958      90  9787.3 10383.8    1815    2044 2006.06
X3                          8780    1188   10760    1188
```

```
XL                                9250   10750
GR1188.2  8125.7  1182.5  8139.8  1182.5  8144.8  1181.8  8169.4  1178.3  8186.1
GR1176.6  8194.6  1171.4  8234.1  1170.3  8245.5  1169.9  8289.9  1170.3  8302.9
C    '8.6  8350.6  1178.9  8364.3  1180.0  8398.1  1180.3  8401.0  1181.7  8450.2
C    .2.2  8482.2  1186.0  8500.0  1185.8  8522.0  1185.9  8550.7  1187.0  8601.5
GR1187.1  8619.9  1186.5  8666.9  1186.0  8727.2  1185.5  8758.0  1188.4  8768.6
GR1190.7  8779.0  1190.0  8792.4  1188.7  8797.4  1187.1  8806.2  1185.4  8840.8
GR1184.5  8854.0  1183.3  8880.1  1182.2  8898.2  1181.9  8914.9  1181.9  8958.1
GR1182.8  9008.4  1182.7  9012.1  1182.5  9059.2  1182.5  9073.3  1182.2  9129.6
GR1182.4  9137.1  1184.0  9146.5  1185.8  9160.2  1185.7  9165.1  1185.9  9206.8
GR1186.6  9262.7  1186.0  9306.7  1186.3  9348.8  1186.5  9364.4  1186.5  9413.0
GR1185.2  9429.8  1185.6  9446.7  1187.5  9458.7  1187.4  9462.9  1187.8  9482.2
GR1187.8  9489.3  1185.8  9500.6  1186.7  9505.2  1187.2  9516.8  1186.7  9567.8
GR1186.5  9606.1  1186.4  9649.0  1186.1  9693.3  1186.0  9707.0  1186.1  9716.3
GR1186.0  9754.4  1182.9  9766.6  1183.3  9775.2  1183.3  9787.3  1182.8  9819.2
GR1182.8  9830.2  1178.3  9844.3  1179.2  9873.0  1178.5  9923.9  1178.9  9977.2
GR1180.5  9987.5  1180.5 10018.6  1180.3 10034.9  1180.5 10076.4  1180.9 10127.3
GR1180.9 10135.8  1180.7 10177.0  1179.8 10229.0  1178.5 10262.0  1177.5 10292.1
GR1176.6 10363.7  1181.5 10383.8  1185.0 10392.4  1185.0 10742.4  1194.0 10760.0
HD20.958      35    8600   10750            1145    8600    9150
          -----------BEARDSLEY----------
X121.061      91  9850.0 10325.4     340     655  542.53
X3                                9200    1188   11045    1188
XL                                9200   11000
GR1192.3  8187.5  1193.6  8199.8  1189.5  8209.0  1183.9  8222.8  1181.3  8275.7
GR1180.7  8281.3  1176.2  8309.6  1172.9  8328.7  1170.6  8354.0  1169.6  8374.3
GR1170.2  8419.5  1173.2  8441.0  1178.8  8476.8  1179.2  8546.0  1181.2  8600.3
GR1182.7  8641.1  1183.9  8654.5  1184.0  8682.4  1183.3  8698.6  1186.2  8709.3
GR1184.9  8751.7  1184.6  8793.6  1184.6  8825.8  1183.8  8864.9  1181.9  8896.9
GR1181.2  8905.0  1182.6  8920.7  1181.9  8936.5  1184.6  8966.0  1186.2  9012.8
GR1186.5  9066.3  1186.8  9089.3  1186.6  9135.6  1187.9  9174.9  1187.5  9248.1
GR1187.1  9253.5  1186.3  9257.6  1188.6  9298.0  1188.2  9312.4  1188.6  9375.9
GR1188.2  9464.9  1188.1  9524.0  1187.6  9578.3  1187.4  9633.7  1187.6  9687.0
GR1187.0  9708.5  1187.3  9759.1  1188.0  9819.5  1186.6  9833.7  1184.5  9850.0
GR1180.3  9895.6  1178.2  9905.8  1176.5  9918.9  1177.1  9938.7  1178.4  9958.7
GR1177.4 10008.7  1177.7 10013.0  1177.6 10034.7  1179.6 10051.0  1180.8 10057.9
GR1180.9 10075.4  1180.8 10114.7  1180.4 10128.6  1177.3 10169.8  1179.1 10230.4
GR1179.5 10284.2  1179.6 10293.5  1183.4 10312.3  1186.3 10325.4  1185.8 10390.7
GR1185.5 10447.7  1184.9 10502.0  1183.2 10563.5  1184.4 10574.9  1186.2 10597.2
     15.0 10613.0  1186.9 10632.0  1186.2 10655.8  1186.2 10687.3  1184.2 10703.6
C    36.2 10721.5  1187.1 10781.1  1186.9 10862.9  1186.7 10908.8  1186.4 10926.9
GR1186.7 10936.8  1187.1 10987.6  1186.1 11012.0  1185.1 11025.4  1187.9 11045.4
GR1201.2 11069.0
HD21.061      30    8800   10100            1150    8800   10100
NC  .055    .055    .050
X121.157      94  9377.3 10376.3     340     630  509.07
X3                                9266.8    1190   11150    1190
XL                                9300   10800
GR1196.0  8182.2  1196.1  8184.4  1192.4  8197.1  1193.5  8208.0  1190.1  8223.3
GR1192.3  8246.0  1191.3  8258.3  1191.4  8264.6  1185.1  8308.7  1183.7  8336.5
GR1178.7  8387.1  1178.6  8397.0  1176.3  8432.1  1178.3  8441.8  1178.4  8451.5
GR1174.2  8500.1  1177.8  8540.9  1176.3  8561.5  1178.2  8580.0  1178.9  8639.9
GR1178.2  8716.7  1179.2  8747.3  1183.6  8782.5  1186.2  8836.0  1186.5  8874.3
GR1190.0  8897.8  1188.6  8906.8  1183.1  8932.9  1180.4  8972.1  1185.7  8984.7
GR1186.8  9024.0  1187.7  9034.5  1188.7  9146.7  1188.2  9196.4  1192.8  9211.2
GR1190.5  9217.8  1188.1  9230.5  1188.8  9257.6  1192.1  9266.8  1189.1  9277.5
GR1189.4  9367.8  1185.9  9377.3  1182.5  9384.7  1181.9  9399.5  1182.3  9456.5
GR1182.5  9511.2  1184.9  9522.6  1180.2  9540.1  1180.6  9541.0  1177.1  9550.4
GR1176.6  9577.6  1178.1  9602.3  1183.1  9638.6  1183.9  9649.3  1183.1  9683.8
GR1184.0  9765.7  1183.5  9878.7  1182.8  9910.1  1182.8  9964.5  1184.0 10008.6
GR1182.8 10105.5  1181.2 10118.2  1179.8 10219.2  1180.3 10232.0  1181.5 10240.1
GR1180.0 10253.7  1178.3 10263.7  1179.9 10279.0  1181.6 10309.5  1181.9 10376.3
GR1182.8 10398.0  1180.6 10404.6  1181.2 10411.2  1189.3 10440.4  1192.8 10455.2
GR1190.9 10477.1  1189.6 10532.3  1189.2 10587.0  1187.0 10615.5  1188.7 10633.4
GR1187.8 10655.0  1189.5 10676.2  1189.4 10771.4  1187.0 10831.3  1189.3 10874.0
GR1189.6 10891.0  1189.2 10950.8  1189.8 10981.9  1189.6 11039.8  1190.2 11134.4
GR1189.9 11240.1  1188.9 11348.5  1189.6 11427.1  1197.9 11459.8
HD21.157      30  9377.3 10398.0            1149    9050   10500
X121.431      75  9467.9 10343.5    1205    1490 1443.17
X3                                9350    1193   10343    1193
XL                                9100   11200
GR1195.9  7596.7  1191.5  7612.7  1191.4  7644.6  1196.1  7665.8  1189.9  7681.7
GR1191.3  7876.2  1193.0  7887.7  1192.5  8007.9  1185.7  8031.5  1185.9  8041.4
GR1192.9  8065.9  1190.8  8089.6  1191.6  8356.5  1193.7  8627.3  1195.3  8703.6
GR1196.7  8717.0  1195.1  8733.0  1205.5  8755.9  1205.1  8780.9  1199.7  8795.6
     96.6  8800.4  1196.9  8892.0  1202.5  8926.6  1201.4  8930.6  1203.4  8949.5
C    99.5  8989.0  1195.1  9005.1  1191.3  9141.2  1193.3  9161.8  1194.7  9167.9
GR1193.7  9177.6  1190.6  9190.7  1190.4  9217.3  1191.3  9222.0  1189.3  9238.6
GR1190.4  9361.8  1187.8  9437.8  1191.1  9467.9  1181.0  9503.2  1181.0  9799.0
GR1189.0  9800.0  1189.0  9908.9  1189.0 10297.8  1193.9 10343.5  1192.1 10360.2
GR1187.6 10374.6  1186.6 10495.9  1187.6 10526.0  1191.0 10541.7  1193.0 10600.4
GR1189.2 10648.7  1190.5 10725.7  1189.2 10747.4  1192.0 10769.6  1193.8 10884.0
GR1191.3 10913.5  1192.6 10942.3  1193.3 10978.9  1191.6 11001.4  1193.8 11018.7
GR1194.8 11074.7  1193.2 11110.2  1193.9 11147.9  1192.9 11175.9  1194.9 11305.7
```

```
GR1193.2 11532.5  1194.0 11644.1  1192.2 11705.1  1194.0 12017.4  1193.5 12215.3
GR1194.4 12220.4  1195.6 12414.0  1197.2 12438.2  1206.9 12475.0  1211.6 12485.0
HD[illegible] 431      35  9190.7 10769.6            1150    7600   10570
N    )45    .055    .035
     *********UPSTREAM END OF BEARDSLEY -1*************************************
     *********LOCATION OF ROSE GARDEN -1*************************************
     ****************************************************************************
X121.893       93  9558.8 10146.5    2525    2070 2442.15
X3                          9546    1200   11050    1200
XL                          9604   12000
GR1200.4  9546.7  1199.5  9548.9  1201.2  9558.8  1194.2  9576.0  1195.0  9660.8
GR1193.5  9708.0  1193.3  9788.3  1192.3  9798.3  1193.8  9857.6  1193.6  9914.6
GR1189.8 10013.5  1187.4 10023.1  1187.6 10040.6  1191.5 10070.2  1191.0 10096.6
GR1195.0 10112.4  1196.7 10146.5  1197.2 10313.7  1197.6 10374.9  1194.0 10402.2
GR1196.6 10443.8  1195.8 10529.3  1192.0 10545.6  1192.0 10653.2  1193.6 10674.7
GR1194.4 10681.1  1193.8 10686.8  1195.3 10710.7  1195.3 10729.1  1201.1 10751.6
GR1200.1 10758.1  1202.1 10912.2  1202.4 11070.0  1202.6 11098.0  1197.7 11126.5
GR1198.0 11174.4  1197.1 11182.9  1199.7 11204.9  1201.2 11232.0  1201.0 11256.9
GR1198.2 11281.1  1199.3 11293.4  1198.7 11313.6  1200.8 11397.0  1200.5 11454.0
GR1198.7 11486.0  1200.7 11625.1  1200.4 11796.9  1200.9 11913.0  1199.9 12012.6
GR1200.7 12055.2  1205.4 12105.2  1207.4 12120.2  1208.8 12124.9  1207.4 12130.3
GR1203.7 12134.7  1180.2 12172.8  1176.8 12177.0  1173.5 12223.1  1173.5 12236.4
GR1169.3 12248.6  1167.7 12263.0  1171.1 12283.8  1169.8 12295.3  1165.9 12311.2
GR1161.5 12326.4  1161.2 12423.3  1163.6 12524.8  1194.5 12550.3  1195.6 12574.7
GR1203.6 12589.8  1201.3 12595.1  1201.5 12701.2  1199.1 12771.4  1201.4 12782.6
GR1206.6 12820.3  1201.8 12861.9  1202.0 12938.0  1202.9 12958.4  1205.5 12964.5
GR1205.6 12967.9  1203.2 12974.5  1203.6 12980.5  1209.1 12994.1  1209.3 13024.5
GR1205.0 13043.5  1206.6 13126.4  1203.6 13135.0  1204.0 13306.5  1205.1 13378.9
GR1204.2 13388.4  1202.5 13397.1  1219.7 13455.6
HD21.893       30  9558.8 10758.1            1160    9547   10700
       -------UPSTREAM OF DEER VALLEY ROAD--------
   ***********DOWNSTREAM END OF DEER VALLEY-1S, 1N, AND DEER VALLEY-2***********
   ****************************************************************************
X122.177       89  9909.7 10533.6    1425    1520 1500.23
X3                         8765.7    1206   10650    1206
XL                          8850   11100
GR1207.0  8765.7  1207.1  8786.8  1204.9  8844.5  1203.0  8855.1  1199.5  8865.5
GR1199.8  8878.3  1197.7  9076.9  1201.5  9111.1  1201.8  9131.3  1203.9  9160.3
G[illegible]04.1  9366.4  1203.1  9432.5  1200.7  9451.7  1202.2  9529.3  1201.7  9586.2
(    2.1  9705.0  1200.6  9773.2  1199.6  9909.7  1197.1 10001.3  1196.9 10057.0
G[illegible]96.2 10078.7  1201.5 10089.5  1196.9 10231.7  1196.0 10350.6  1196.0 10510.5
GR1200.7 10533.6  1197.5 10557.0  1194.4 10565.7  1197.7 10653.0  1196.0 10668.4
GR1193.8 10790.9  1194.5 10950.2  1197.8 10965.9  1202.7 10979.9  1202.4 11012.5
GR1201.0 11024.0  1201.8 11036.9  1212.9 11068.5  1203.3 11092.5  1202.5 11126.9
GR1202.8 11163.1  1207.3 11173.2  1206.9 11197.3  1205.9 11206.1  1207.0 11344.6
GR1210.4 11352.1  1213.2 11360.4  1207.1 11376.6  1207.1 11600.9  1208.7 11813.7
GR1213.6 11826.7  1214.6 11832.4  1212.5 11856.3  1214.4 11897.1  1212.8 11966.7
GR1214.0 12077.6  1211.0 12191.7  1212.2 12252.6  1211.1 12304.1  1211.6 12311.6
GR1210.8 12326.4  1213.5 12334.0  1206.8 12349.9  1206.8 12409.5  1212.7 12439.6
GR1212.4 12476.5  1206.8 12489.2  1206.8 12564.8  1211.1 12576.8  1209.7 12583.4
GR1207.7 12667.9  1213.9 12678.3  1214.7 12678.9  1214.2 12696.7  1210.2 12709.6
GR1208.5 12713.4  1208.1 12737.7  1220.1 12763.9  1219.5 12790.0  1216.3 12811.3
GR1219.0 12823.9  1216.4 12834.3  1212.8 12843.9  1213.0 12857.8  1211.9 12881.8
GR1209.2 12892.3  1208.1 12903.1  1220.1 12936.6  1220.4 12953.7
HD22.177       25     8850   11500            1190    9800   11500
NC  .045    .045    .035
X122.462       77  9887.4 10318.9    1530    1400 1478.14
X3    10
XL                          9050   10800
GR1214.1  9040.3  1204.2  9050.4  1200.9  9054.7  1201.9  9096.6  1203.8  9113.8
GR1203.8  9121.3  1202.8  9131.0  1202.7  9157.9  1205.0  9180.8  1203.4  9243.2
GR1205.9  9269.8  1205.1  9286.9  1206.8  9364.8  1206.9  9426.2  1208.3  9443.7
GR1208.8  9457.7  1208.0  9482.3  1206.3  9500.7  1206.7  9569.8  1208.1  9670.4
GR1208.0  9753.1  1206.3  9887.4  1203.2  9904.4  1200.3  9916.7  1202.4  9965.0
GR1202.2  9995.7  1203.8 10034.6  1204.6 10185.7  1204.1 10207.9  1202.3 10213.2
GR1203.0 10277.6  1202.5 10298.1  1208.7 10318.9  1209.5 10430.6  1208.5 10528.4
GR1207.3 10553.7  1206.1 10567.0  1203.7 10578.9  1203.5 10588.1  1206.1 10597.7
GR1205.5 10693.6  1206.9 10714.4  1206.8 10754.0  1205.9 10778.0  1210.3 10789.3
GR1203.0 10806.5  1203.0 11063.7  1203.1 11084.2  1203.5 11091.6  1203.0 11108.3
GR1205.2 11122.0  1205.4 11127.3  1204.6 11132.0  1205.1 11135.9  1203.0 11141.3
GR1203.0 11143.1  1203.0 11674.7  1203.1 11712.6  1203.2 11750.2  1205.2 11762.2
GR1205.6 11785.7  1205.5 11850.5  1210.5 11868.3  1210.3 11895.4  1211.2 12107.3
GR1211.4 12348.4  1212.1 12564.8  1212.3 12672.9  1213.1 12727.6  1213.3 12937.8
GR1213.2 12969.2  1214.0 12976.0  1214.8 13009.5  1218.7 13078.4  1218.7 13121.7
G[illegible]17.8 13132.1  1225.6 13192.8
    462       35  9050.4   12200            1170   10800   12200
X[illegible].745       92  9797.7 10147.8    1520    1270 1491.33
X3    10
XL                          8910   11000
GR1225.1  8903.1  1207.9  8919.7  1208.2  8963.5  1207.5  9060.1  1207.7  9092.9
GR1206.4  9114.7  1206.1  9143.1  1208.9  9172.4  1211.8  9209.3  1212.0  9328.1
GR1211.9  9402.0  1212.9  9418.9  1212.4  9534.3  1211.5  9563.3  1211.0  9595.9
GR1211.2  9640.5  1210.6  9677.3  1210.8  9692.3  1209.6  9711.3  1209.4  9723.7
GR1211.0  9745.9  1211.9  9797.7  1211.1  9835.1  1208.8  9954.1  1207.1  9981.3
```

```
GR1207.0 10008.3  1206.3 10036.6  1207.2 10049.9  1207.2 10119.2  1210.2 10147.8
GR1210.8 10219.0  1210.4 10251.5  1211.9 10260.4  1211.3 10309.2  1211.7 10324.5
GR1212.5 10377.1  1211.5 10388.9  1212.2 10429.8  1212.2 10482.5  1211.9 10494.4
G     ).2 10515.1  1210.5 10539.3  1212.7 10587.8  1212.6 10693.2  1212.4 10746.0
G.    2.9 10851.1  1210.4 10874.3  1210.1 10904.0  1212.0 10941.3  1212.2 10956.6
GR1211.7 11009.3  1211.2 11028.1  1212.9 11064.9  1212.4 11099.8  1210.7 11127.4
GR1212.4 11180.0  1212.7 11259.2  1212.5 11272.7  1212.8 11327.7  1209.3 11351.0
GR1208.3 11378.9  1207.9 11394.3  1206.2 11399.0  1207.0 11430.8  1206.0 11521.2
GR1209.3 11533.2  1209.6 11536.1  1210.0 11641.5  1210.0 11668.6  1208.1 11687.0
GR1210.0 11694.4  1209.8 11721.1  1210.6 11746.8  1211.1 11799.5  1210.6 11904.9
GR1210.8 11957.6  1210.1 12011.8  1209.3 12027.9  1209.6 12051.8  1211.3 12062.3
GR1211.9 12081.2  1212.6 12088.4  1213.4 12113.3  1214.8 12123.8  1214.9 12168.3
GR1215.3 12220.9  1215.3 12248.1  1215.9 12273.6  1216.2 12326.3  1217.0 12371.3
GR1222.8 12402.3  1222.5 12409.2
HD22.745      25    8910   12200            1195   11050   12200
   ************UPSTREAM END OF DEER VALLEY SAND AND GRAVEL MINES***************
   ************************************************************************
   ************DOWNSTREAM END OF PINNACLE 1S, 1N, 2, 3W, AND 3E****************
   ************************************************************************
X122.935      94  9530.2 10351.6    2480    2125 2490.47
X3    10
XL                         8400   10750
GR1220.0  8478.1  1216.5  8483.9  1209.0  8492.7  1209.0  8541.4  1209.8  8593.0
GR1209.5  8623.7  1211.8  8638.1  1212.2  8644.8  1211.3  8746.3  1212.4  8772.4
GR1212.5  8782.3  1210.6  8800.5  1210.0  8839.6  1211.6  8869.5  1213.5  8894.6
GR1214.2  8936.6  1212.6  8962.1  1212.4  8974.7  1214.6  8991.9  1213.7  9001.1
GR1213.4  9012.1  1215.7  9027.2  1216.0  9058.6  1214.9  9162.0  1214.4  9213.7
GR1215.0  9265.5  1215.1  9317.2  1215.4  9331.4  1214.8  9372.3  1216.3  9413.3
GR1216.3  9472.4  1214.8  9530.2  1210.6  9542.3  1212.1  9575.8  1211.3  9622.6
GR1211.4  9679.2  1211.9  9699.5  1212.1  9730.9  1213.2  9773.4  1212.1  9822.2
GR1213.0  9886.1  1213.3  9937.8  1211.6 10017.5  1211.9 10118.3  1211.9 10145.4
GR1212.2 10156.3  1209.5 10173.6  1210.0 10241.7  1211.4 10250.1  1214.0 10262.0
GR1214.4 10351.6  1214.2 10403.3  1215.4 10454.7  1215.2 10558.7  1215.2 10662.0
GR1215.1 10721.9  1215.5 10762.8  1214.4 10819.8  1215.1 10857.4  1214.7 10865.3
GR1215.6 10897.6  1209.0 10913.6  1209.1 10955.1  1211.9 10967.7  1211.9 10984.9
GR1209.7 11072.3  1209.9 11083.9  1213.0 11096.7  1213.5 11191.9  1212.7 11282.6
GR1213.0 11356.1  1214.2 11458.1  1214.1 11547.1  1213.0 11596.6  1213.2 11605.7
GR1212.0 11613.2  1211.7 11626.3  1214.6 11638.0  1213.8 11653.6  1216.3 11683.4
GR   13.8 11741.8  1214.3 11745.7  1214.6 11761.9  1215.8 11785.2  1216.8 11831.6
(     7.0 11855.2  1217.7 11866.3  1217.2 11872.6  1218.8 11915.0  1223.5 11955.0
G.   25.3 11975.5  1225.9 12008.2  1227.6 12033.7  1228.2 12069.7
HD22.935      30  8492.7   12000            1208   10920   12000
         ----------PINNACLE PEAK ROAD----------
NC  .045    .045    .035
X123.409      93  9675.2 10060.2    2450    2360 2505.26
X3                         9550    1226 12265.5    1226
XL                         8700   11160
GR1256.3  7735.9  1256.2  7750.9  1230.4  7791.4    1231  7799.5  1230.7  7813.6
GR1228.9  7829.9  1228.9    7848  1227.5  7854.5  1225.7  7858.5  1225.8  7874.5
GR1224.7  7925.3  1224.9  8004.6  1224.3  8121.4  1222.9  8128.6  1222.9  8137.8
GR1224.3  8143.3  1224.4    8147  1218.3  8173.3  1218.8  8283.2  1218.5  8305.9
GR1221.1  8338.7  1221.5  8349.7  1221.2  8385.4    1222  8419.6  1221.6  8441.4
GR1221.8  8470.7    1220  8485.1  1220.9  8589.8  1219.3  8692.6  1218.8  8702.3
GR1218.6  8794.3  1218.2  8808.7    1223  8830.7  1223.6  8845.4  1222.8    8907
GR  1223  8947.6    1222  8977.9    1222  9031.1  1222.9  9049.9  1222.2    9101
GR  1221  9152.2  1221.5  9197.7  1222.5    9217  1223.4  9354.4  1223.7  9356.6
GR  1223  9522.1  1223.7  9561.1  1223.6  9675.2  1220.5  9686.2  1219.3  9713.7
GR1221.7  9811.5  1222.1  9867.8  1220.9  9918.9  1218.8  9939.5  1222.2 10021.2
GR  1222 10030.4  1225.4 10060.2  1225.1 10154.4  1225.6 10174.6  1221.8   10379
GR1221.9 10407.3  1222.8 10449.5  1222.4 10582.3  1221.4 10615.1  1222.4 10660.2
GR  1222 10702.4  1221.1 10736.8  1221.1   10769  1217.6 10787.7  1216.7   10796
GR1218.5 10890.2  1217.9 10919.7    1224 10945.4  1224.1 11043.5  1223.4 11145.8
GR1222.1 11192.4  1223.1 11350.2  1222.8 11395.3    1220 11409.7  1220.7 11440.1
GR1218.9 11453.4  1219.4   11481  1223.9 11496.7  1225.8 11510.2  1225.6 11629.8
GR1226.2 11671.9  1225.8 11708.1    1226 11811.1  1226.4 11983.3  1225.7 11990.8
GR  1227 11995.5  1226.6 12052.6    1229   12250
HD23.409      30  8173.3   12200            1210   11160   12200
X123.692      92  9869.5 10339.2    1460    1455 1492.88
X3                         9650    1230 11533.8    1230
XL                         9670   11450
GR1249.2    6690  1249.2  8010.6    1232  8040.7    1217  8064.8  1206.1  8092.9
GR  1206  8096.9  1201.9  8135.1  1201.4  8210.8  1202.5  8214.5  1212.3  8236.5
GR1219.1    8249  1223.8    8259  1223.6  8273.3  1208.2  8305.9  1207.7  8359.5
GR1199.7  8383.2  1198.6  8394.4  1197.8    8409    1198  8412.1  1195.3  8460.9
C    94.7  8478.5    1195  8488.3  1193.4  8524.5  1192.8  8550.6  1192.9  8601.8
(     2.3  8644.7    1191  8850.7  1190.7  8940.5  1191.1  8982.8  1190.8  9001.7
GR1191.4    9051    1191    9241  1190.3  9294.9  1190.5  9312.2  1188.8  9461.1
GR1187.9  9512.2  1187.1  9533.1  1186.7  9600.8    1194  9614.7  1195.8  9616.7
GR1229.7  9648.2  1229.5  9660.7    1229  9668.2  1229.3  9671.3  1226.8  9681.7
GR1226.3  9720.8  1229.5  9733.8  1229.9  9767.4  1229.5  9787.1  1229.5  9869.5
GR1223.9  9897.3  1223.8  9971.6  1224.3 10044.9  1225.7   10077    1227 10124.7
GR  1227 10187.8  1227.5 10194.4  1225.6 10203.5  1226.4 10319.8  1227.4 10339.2
GR1226.9 10382.2  1226.4 10393.6  1227.6 10444.7  1228.2 10514.5  1228.2 10549.6
GR1226.1 10559.9    1226   10583  1227.6 10607.5  1227.9 10621.6  1224.3 10637.9
```

```
GR1224.5 10675.4  1228.1 10690.3  1228.8 10839.5  1228.3 10890.4  1228.9 10941.6
GR1228.3 10992.6    1229 11043.6  1228.1 11095.7  1229.6 11162.5  1229.7 11186.1
GR1228.9 11247.8  1228.8 11285.6  1227.1 11315.5  1225.5 11324.7  1225.3 11356.5
(    36.3 11384.6  1227.1 11396.5  1227.2 11429.5  1225.4 11433.6  1240.7 11468.5
(     .238 11521.1  1237.8 11533.8
HD23.692      35    7000   11450            1190    7000    9700
NC  .055    .055    .050
X123.974      94  9716.2 10115.2    1420    1470 1489.37
X3                          9716    1238 11204.9    1238
XL                          9716   11200
GR1269.8    7400  1269.5  7473.5  1273.0  7482.1  1266.9  7509.6  1265.6  7558.6
GR1264.4  7562.0  1264.2  7576.0  1262.7  7576.8  1263.1  7578.2  1257.8  7586.6
GR1254.6  7593.3  1249.1  7602.5  1231.9  7627.3  1231.1  7774.9  1230.1  7821.5
GR1231.4  7829.1  1230.4  7941.6  1231.4  8024.4  1231.6  8198.2  1235.4  8254.0
GR1235.5  8318.5  1232.8  8351.1  1234.8  8370.8  1235.9  8403.1  1234.6  8420.3
GR1229.9  8445.4  1228.7  8464.9  1229.5  8485.0  1234.3  8506.0  1234.8  8543.1
GR1234.1  8546.0  1234.5  8550.1  1229.2  8565.6  1230.7  8648.0  1230.9  8814.3
GR1232.0  8898.5  1229.8  9001.5  1229.1  9008.3  1227.9  9102.9  1226.9  9118.2
GR1222.9  9132.2  1223.3  9177.1  1222.3  9200.2  1226.6  9218.9  1226.0  9358.3
GR1225.0  9399.9  1226.0  9433.7  1225.4  9465.1  1230.3  9506.7  1230.8  9563.1
GR1236.6  9583.0  1235.2  9586.4  1228.1  9595.9  1231.8  9621.4  1234.4  9693.0
GR1238.6  9716.2  1229.1  9729.9  1227.8  9772.7  1227.5  9833.4  1231.8  9891.3
GR1230.5  9916.5  1230.4  9964.1  1232.0  9977.2  1236.5  9992.0  1232.6 10005.8
GR1231.9 10010.7  1232.5 10019.0  1234.9 10030.1  1231.9 10036.8  1230.0 10073.5
GR1230.7 10110.9  1233.1 10115.2  1234.8 10128.6  1232.8 10151.6  1232.2 10212.3
GR1229.6 10239.8  1230.2 10354.5  1229.1 10371.5  1232.4 10388.9  1232.5 10439.1
GR1233.5 10490.5  1231.8 10554.8  1233.5 10644.6  1232.4 10714.7  1232.8 10747.3
GR1231.6 10828.7  1233.7 10842.9  1231.4 10994.6  1230.5 11034.8  1235.7 11058.4
GR1236.3 11109.1  1237.7 11139.4  1254.2 11185.4  1253.5 11204.9
HD23.974      40  7400.0 10388.9            1190    7400   10280
    ------DOWNSTREAM OF HAPPY VALLEY ROAD-------
    ********DOWNSTREAM END OF PINNACLE 1S, 1N, 2, 3W, 3E**********************
    ************************************************************************
NC  .045    .045    .035
X124.449      92  9496.2 10169.3    2380    2560 2506.65
X3    10
GR1263.1  7480.4  1261.5  7489.1  1250.1  7529.5  1249.2  7543.3  1248.2  7549.9
GR1245.9  7555.7  1247.2  7582.8  1248.9  7594.4  1246.2  7645.6  1245.2  7718.8
GR1247.2  7752.2  1248.1  7786.1  1247.8  7811.3  1245.8  7857.9  1245.7  7875.1
(    15.3  7884.4  1244.3  7893.4  1244.1  7898.5  1240.3  7915.9  1239.3  8016.4
(    39.1  8069.2  1239.5  8122.0  1240.1  8156.4  1239.5  8235.2  1239.5  8280.5
GR1238.4  8322.6  1239.6  8343.5  1239.5  8355.6  1240.2  8439.1  1240.2  8510.9
GR1239.5  8550.3  1239.9  8597.6  1239.9  8650.4  1239.3  8695.0  1240.0  8709.4
GR1240.9  8750.2  1240.5  8756.1  1242.0  8876.0  1242.1  9030.7  1241.9  9090.1
GR1240.3  9161.6  1241.1  9181.1  1241.1  9192.2  1242.2  9231.6  1241.9  9337.3
GR1240.9  9390.1  1240.2  9496.2  1239.0  9538.6  1237.6  9557.0  1236.8  9573.9
GR1236.9  9602.7  1238.3  9656.4  1238.3  9678.3  1239.9  9694.6  1238.4  9856.2
GR1237.8  9864.3  1238.2  9890.0  1236.9  9916.2  1235.0  9982.5  1236.4 10034.9
GR1238.0 10047.2  1238.4 10084.9  1237.6 10101.9  1236.8 10111.0  1237.1 10131.9
GR1242.7 10169.3  1243.4 10182.6  1243.3 10247.2  1242.7 10272.2  1239.6 10285.3
GR1240.2 10341.1  1240.2 10392.7  1239.0 10423.1  1237.8 10552.5  1238.2 10627.8
GR1238.7 10658.1  1238.7 10763.8  1240.1 10846.9  1239.6 10873.0  1240.3 10904.3
GR1240.2 10920.1  1240.7 10924.8  1239.7 10968.5  1239.8 10975.1  1237.8 11100.8
GR1236.8 11143.3  1236.9 11292.1  1236.6 11313.1  1256.8 11340.0  1262.3 11347.9
GR1266.4 11355.0  1266.2 11372.5
HD24.449      10  7898.5 11143.3
           ----------UPSTREAM OF HAPPY VALLEY ROAD----
X124.543      91  9646.7 10243.6     495     495  500.50
X3    10
XL                          9300   10400
GR1263.5  7211.0  1252.7  7236.5  1251.5  7278.4  1251.6  7286.8  1254.4  7313.5
GR1253.6  7369.3  1252.4  7377.4  1251.9  7386.5  1249.9  7404.2  1248.7  7467.2
GR1249.7  7472.7  1252.9  7484.9  1255.5  7497.4  1254.7  7502.0  1254.6  7528.3
GR1256.3  7533.7  1254.5  7542.2  1252.6  7637.5  1252.0  7691.0  1250.6  7746.3
GR1249.7  7812.2  1247.4  7826.0  1243.4  7844.8  1242.1  8008.2  1241.3  8113.9
GR1241.9  8182.1  1241.8  8219.6  1242.3  8252.1  1239.4  8262.4  1242.2  8277.0
GR1241.9  8339.5  1242.2  8490.8  1242.5  8589.6  1241.9  8649.4  1243.0  8695.3
GR1243.0  8853.8  1244.5  9012.4  1243.7  9118.1  1244.1  9223.8  1243.7  9281.4
GR1242.1  9297.8  1242.1  9329.5  1243.0  9358.2  1240.9  9382.8  1240.8  9435.3
GR1236.3  9582.1  1235.6  9594.4  1243.3  9622.9  1243.5  9646.7  1241.9  9709.0
GR1242.3  9742.6  1244.0  9751.8  1245.4  9766.1  1244.5  9793.5  1243.5  9796.0
GR1242.9  9806.8  1240.2  9821.0  1239.6  9874.8  1240.3  9923.3  1239.0  9952.8
GR1240.5  9966.8  1240.8 10077.7  1237.6 10212.4  1237.8 10229.1  1243.2 10243.6
GR1243.4 10280.9  1242.6 10333.8  1242.5 10386.8  1243.4 10439.4  1241.6 10550.6
GR1239.4 10565.8  1239.2 10598.0  1238.6 10619.5  1240.4 10703.7  1240.8 10780.2
(     9.9 10859.1  1240.9 10869.5  1240.8 10915.2  1241.7 11080.7  1239.4 11105.3
(    41.4 11119.9  1239.4 11166.5  1239.8 11241.2  1239.5 11244.2  1238.3 11247.1
GR1238.7 11285.1  1238.3 11331.3  1238.6 11360.1  1236.8 11366.3  1237.7 11413.5
GR1259.5 11435.6
HD24.543      10    7240 11413.5
NC   .05     .05    .035
X124.996      96  9774.0 10632.3    2320    2330 2388.18
X3    10
GR1254.4  7668.6  1255.6  7682.4  1253.3  7774.4  1252.5  7785.0  1252.9  7828.8
```

```
GR1250.8  7840.2  1249.6  7995.9  1250.5  8047.8  1250.3  8099.7  1248.3  8201.7
GR1251.3  8255.4  1250.9  8411.0  1250.4  8444.6  1251.5  8463.0  1253.0  8566.7
GR1250.8  8652.6  1252.5  8696.2  1251.2  8717.9  1252.0  8746.9  1253.0  8753.4
G     3.3  8948.2  1252.1  9141.0  1251.8  9301.7  1249.0  9319.2  1250.0  9345.0
G     9.7  9404.1  1251.9  9428.2  1253.9  9461.8  1251.9  9472.2  1253.0  9564.4
GR1252.2  9619.0  1251.5  9625.6  1253.1  9632.6  1253.1  9774.0  1249.9  9791.3
GR1251.3  9888.4  1248.8  9906.8  1246.5  9913.9  1246.3  9992.8  1251.7 10012.2
GR1251.9 10171.5  1251.6 10198.7  1250.5 10222.4  1251.0 10358.3  1249.9 10397.4
GR1247.8 10423.0  1247.9 10562.7  1251.0 10632.3  1251.3 10742.4  1250.8 10781.7
GR1248.5 10834.6  1246.8 10901.3  1246.9 10937.6  1249.6 10961.7  1249.1 11048.3
GR1246.4 11064.6  1246.4 11141.1  1250.7 11165.4  1250.6 11205.1  1251.4 11268.0
GR1248.9 11363.8  1250.7 11381.9  1251.5 11417.3  1250.3 11433.5  1252.5 11592.2
GR1252.6 11754.2  1251.3 11837.5  1252.5 11924.5  1247.9 11950.2  1249.3 12001.8
GR1251.6 12125.4  1248.6 12142.4  1248.2 12162.5  1249.1 12171.5  1248.7 12200.8
GR1248.0 12211.3  1249.8 12369.4  1250.4 12415.7  1248.6 12477.3  1248.6 12557.6
GR1247.9 12565.5  1251.2 12585.7  1252.4 12638.3  1251.9 12653.4  1252.8 12687.0
GR1251.6 12800.2  1253.2 12843.0  1252.7 12865.4  1251.6 12881.9  1252.7 12938.1
GR1250.9 12975.2  1250.9 13009.4  1248.8 13019.0  1250.7 13059.6  1254.0 13074.1
GR1270.0 13110.8
HD24.996      10  9632.6 11205.1
            ----------DOWNSTREAM OF JOMAX ROAD------
NC  0.05    0.05    0.03
X125.478      93  9750.7 10127.1    2600    2485 2546.34
X3    10
GR1266.4  9454.8  1266.3  9462.5  1266.6  9467.0  1264.1  9480.2  1262.3  9493.0
GR1267.1  9518.7  1262.5  9537.0  1262.0  9559.9  1262.1  9574.0  1258.4  9603.5
GR1258.9  9613.7  1260.9  9630.3  1261.6  9638.5  1261.9  9668.7  1262.0  9731.0
GR1261.9  9750.7  1256.0  9783.0  1254.8  9809.7  1255.0  9818.3  1254.8  9843.9
GR1257.0  9867.9  1256.9  9871.4  1256.5  9925.9  1256.2  9967.1  1256.2  9978.3
GR1255.4 10002.9  1254.7 10024.1  1254.5 10043.4  1254.3 10083.1  1253.9 10104.4
GR1253.9 10108.1  1257.7 10127.1  1257.7 10134.0  1258.0 10169.9  1258.2 10187.9
GR1258.4 10223.6  1258.5 10240.3  1258.5 10263.4  1258.3 10292.7  1257.0 10332.0
GR1257.6 10345.1  1257.5 10395.5  1257.1 10411.4  1258.2 10417.9  1258.1 10431.7
GR1257.6 10450.0  1257.5 10504.6  1257.4 10539.4  1257.1 10566.7  1260.3 10593.4
GR1260.2 10598.2  1261.0 10622.4  1261.1 10659.6  1261.4 10711.1  1261.4 10711.9
GR1261.0 10764.3  1260.7 10821.9  1260.8 10869.1  1260.7 10883.2  1260.8 10921.5
GR1260.5 10959.6  1260.3 10981.5  1260.2 11026.3  1260.0 11078.8  1259.8 11101.1
GR1259.5 11131.2  1259.5 11141.0  1259.8 11183.6  1259.6 11234.0  1260.8 11248.0
GR1260.6 11288.4  1260.1 11313.0  1259.7 11329.7  1260.3 11340.8  1260.1 11369.5
G     0.0 11382.3  1260.0 11422.5  1260.8 11433.9  1260.5 11477.6  1259.8 11498.0
G    20.0 11506.6  1260.8 11539.1  1260.8 11551.3  1260.5 11589.5  1260.4 11591.7
GR1261.0 11612.2  1259.6 11628.8  1258.8 11665.3  1258.9 11666.4  1259.7 11701.5
GR1260.5 11739.0  1260.7 11748.7  1270.5 11764.3
HD25.478      10  9750.7 10598.2
          ----------UPSTREAM OF JOMAX ----------
X125.666      66  9842.4 10115.1    1035     975  995.18
X3    10
GR1275.1  9731.1  1266.5  9742.2  1262.3  9747.3  1268.1  9765.6  1265.6  9789.2
GR1263.2  9809.0  1261.8  9820.4  1259.6  9837.2  1259.8  9842.4  1255.4  9854.2
GR1255.5  9869.6  1256.6  9907.7  1256.6  9916.6  1257.0  9929.5  1256.6  9945.6
GR1256.5  9949.5  1256.5  9960.5  1256.4  9998.6  1256.7 10050.9  1256.2 10095.0
GR1258.3 10115.1  1259.3 10155.5  1259.4 10170.1  1259.4 10210.2  1259.6 10250.2
GR1259.6 10260.2  1259.8 10279.0  1260.0 10312.4  1260.4 10354.5  1260.6 10364.7
GR1260.6 10388.0  1260.6 10430.0  1260.6 10469.4  1260.5 10490.3  1260.6 10521.7
GR1261.1 10577.4  1261.3 10588.1  1264.4 10607.2  1264.4 10610.8  1263.8 10643.8
GR1263.5 10654.2  1264.6 10672.1  1264.3 10700.6  1263.5 10714.3  1263.1 10727.6
GR1263.3 10732.9  1263.9 10738.0  1264.3 10744.6  1264.1 10757.9  1263.9 10783.2
GR1263.4 10835.5  1262.7 10890.4  1261.4 10940.1  1260.7 10986.7  1260.2 11013.2
GR1259.9 11020.1  1260.3 11048.1  1260.3 11069.2  1260.8 11097.6  1260.9 11102.2
GR1262.5 11108.2  1269.9 11136.7  1272.2 11149.3  1277.0 11186.8  1277.3 11190.7
GR1278.3 11195.3
HD25.666      10  9854.2 10388.0
X1 25.86      25    9940   10200    1575    1565    1585
X3    10
GR  1300    7650    1280    7740    1276    7750    1272    8220    1268    8300
GR1267.5    8340    1268    8395  1270.8    8500    1268    8615  1267.6    8690
GR  1268    8795    1268    8960    1269    9060    1268    9190  1265.6    9335
GR  1266    9600    1268    9740    1268    9820    1264    9940    1260    9950
GR  1260   10055    1264   10200    1280   10215    1280   10300    1284   10340
HD 25.86      10    8300   10200
     ***************DOWNSTREAM LIMIT OF PINNACLE VISTA-1*************************
     ******************************************************************************
NC  0.06   0.065   0.035
X1 25.94    22.0    9945   10117     450     420     430
X3    10
:                           8000   10000
G.   76.1    7527    1273    7678  1273.9    7868  1272.1  8087.0  1270.3  8382.0
GR1270.3  8578.0  1268.1  8600.0  1271.4  8631.0  1271.2  8762.0  1270.1  9101.0
GR1267.2  9241.0  1271.2  9532.0  1269.2  9945.0  1264.2 10000.0  1267.0 10117.0
GR1263.4 10185.0  1270.1 10242.0  1270.3 10425.0  1269.7 10480.0  1269.0 10780.0
GR1276.0 11050.0  1276.0   12000
HD 25.94      30    8000   11970            1245    9950   11970
X1 26.29    26.0    9696   10120    1640    1875    1810
X3    10
```

```
XL                          8200   10890
GR1307.9  8275.0  1279.3  8338.0  1278.4  8722.0  1275.7  8754.0  1276.5  8962.0
GR1277.4  9349.0  1273.2  9372.0  1276.7  9696.0  1274.9  9925.0  1271.6  9943.0
G     1.6 10000.0  1273.7 10084.0  1278.8 10120.0  1278.2 10393.0  1278.4 10757.0
G     5.0 11021.0  1273.9 11201.0  1279.2 11227.0  1276.8 11724.0  1278.8 11784.0
GR1280.5 12462.0  1281.9 12794.0  1279.6 12804.0  1312.6 12882.0  1311.4 13079.0
GR1312.6 13300.0
HD 26.29      30     8200   13250            1255   10890   13250
NC  0.06    0.07    0.035
X1 26.63    22.0     9792   10187    1800    1840    1840
X3    10
XL                          9200   11850
GR1310.9  9050.0  1310.0  9116.0  1288.0  9208.0  1286.8  9488.0  1282.7  9510.0
GR1282.7  9641.0  1284.1  9792.0  1279.5 10000.0  1281.8 10187.0  1280.9 10467.0
GR1279.4 10741.0  1282.9 10861.0  1283.0 11016.0  1285.4 11057.0  1285.6 11351.0
GR1283.8 12475.0  1286.4 13757.0  1288.6 13810.0  1348.8 13939.0  1348.8 13956.0
GR1345.6 13961.0  1345.6 14400.0
HD 26.63      30     9200   14370            1260   11850   14370
    ******************UPSTREAM LIMIT OF PINNACLE VISTA-1************************
    ******************************************************************************
X1 26.73    31.0     9898   10125     460     470     490
X3    10
GR1312.2  9355.0  1313.9  9457.0  1289.8  9540.0  1287.5  9720.0  1282.4  9755.0
GR1285.6  9834.0  1280.7  9898.0  1279.8 10000.0  1279.9 10125.0  1279.9 10364.0
GR1283.4 10385.0  1283.4 10521.0  1280.9 10543.0  1283.2 10628.0  1285.7 11057.0
GR1287.2 11263.0  1286.8 11621.0  1286.8 13292.0  1287.3 13590.0  1290.5 13648.0
GR1286.3 13673.0  1302.5 13759.0  1293.3 13811.0  1295.0 13870.0  1317.7 13944.0
GR1310.7 13981.0  1332.7 14126.0  1350.7 14161.0  1350.7 14176.0  1346.0 14188.0
GR1346.0 14190.0
HD 26.73      10     9400   11200
X1 27.03    23.0     9922   10079    1660    1020    1590
X3    10
GR1307.8  9627.0  1301.5  9679.0  1283.2  9723.0  1281.2  9814.0  1282.6  9900.0
GR1287.2  9922.0  1283.5  9949.0  1283.4 10000.0  1283.4 10054.0  1286.2 10079.0
GR1288.9 10450.0  1290.7 10553.0  1288.0 10732.0  1291.0 10749.0  1291.0 11081.0
GR1291.4 12573.0  1293.7 12649.0  1291.4 12657.0  1301.2 12783.0  1303.3 12821.0
GR1300.5 12889.0  1319.6 12961.0  1330.8 13050.0
HD 27.03      10     9700   10600
NC  0.055   0.055   0.035
     ******************DOWNSTREAM END OF DIXLETA-1*****************************
     ******************************************************************************
X1 27.48    36.0     9894   10087    2860    2160    2390
X3    10
XL                          7710   10080
GR1357.7  6865.0  1350.6  6903.0  1350.2  6923.0  1301.6  7048.0  1299.7  7138.0
GR1300.5  7579.0  1295.1  7603.0  1296.8  7764.0  1298.1  7834.0  1294.2  7891.0
GR1294.1  7961.0  1296.5  8010.0  1293.8  8054.0  1296.9  8084.0  1295.1  8126.0
GR1297.8  8226.0  1296.0  8427.0  1297.8  8611.0  1297.0  8717.0  1295.9  8742.0
GR1294.5  8960.0  1297.5  9033.0  1298.6  9348.0  1295.3  9547.0  1296.3  9669.0
GR1297.6  9742.0  1295.2  9753.0  1294.9  9894.0  1291.5 10000.0  1292.8 10087.0
GR1292.8 10157.0  1301.9 10203.0  1301.3 10736.0  1301.9 11132.0  1323.3 11258.0
GR1324.8 11319.0
HD 27.48      35     7030   10080            1260    7030    7710
X1 27.68    35.0     9853   10078    1260    1040    1040
X3    10
XL                          7850   10200
GR1310.1  7060.0  1305.9  7509.0  1301.3  7550.0  1302.2  7781.0  1301.9  8224.0
GR1297.0  8243.0  1298.6  8317.0  1299.3  8587.0  1302.4  8679.0  1298.7  8774.0
GR1301.1  8870.0  1300.8  8938.0  1297.9  8961.0  1301.1  8999.0  1301.3  9184.0
GR1297.6  9230.0  1300.8  9293.0  1298.8  9379.0  1300.1  9459.0  1299.0  9624.0
GR1295.3  9640.0  1295.4  9695.0  1301.1  9738.0  1301.6  9853.0  1295.7 10000.0
GR1294.7 10078.0  1310.2 10125.0  1310.7 10428.0  1311.8 10663.0  1305.9 10703.0
GR1312.1 10728.0  1309.4 10746.0  1311.0 10884.0  1330.0 10991.0  1330.2 11145.0
HD 27.68      35     7270   10800            1265    7270    7850
X1 27.94    24.0     9944   10187    1370    1415    1405
X3    10
XL                          8380   10300
GR1360.4  7500.0  1356.7  7704.0  1305.1  7886.0  1307.7  8084.0  1306.0  8202.0
GR1307.3  8314.0  1308.0  8514.0  1308.2  8676.0  1304.3  8729.0  1304.4  8806.0
GR1308.0  9057.0  1304.2  9174.0  1306.7  9260.0  1302.0  9309.0  1301.5  9374.0
GR1303.4  9391.0  1304.1  9657.0  1304.1  9944.0  1299.1 10000.0  1303.6 10035.0
GR1303.5 10187.0  1309.6 10212.0  1323.7 10246.0  1327.4 10339.0
HD 27.94      35     7850   10200            1265    8020    8380
    ****************UPSTREAM LIMIT OF DIXLETA-1*****************************
    ******************************************************************************
:     .12    27.0     9906   10076     990     960     950
X_    10
GR1357.3  8340.0  1355.3  8384.0  1323.5  8506.0  1320.1  8630.0  1313.6  8697.0
GR1309.5  8719.0  1311.3  8878.0  1311.1  9108.0  1307.8  9129.0  1307.5  9182.0
GR1310.6  9258.0  1308.2  9300.0  1310.5  9411.0  1308.6  9524.0  1306.6  9675.0
GR1304.9  9906.0  1304.6 10000.0  1304.6 10076.0  1310.3 10107.0  1310.7 10411.0
GR1306.3 10527.0  1307.3 10680.0  1308.6 10781.0  1308.5 10866.0  1310.8 10916.0
GR1312.7 11051.0  1314.2 11435.0
HD 28.12      10     8750   11300
```

```
X1 28.67     37.0     9964   10192    2785     2925     2885
X3                           9450  1322.3    11202   1322.3
GR1372.7  9450.0  1371.0  9866.0  1319.8  9950.0  1311.5  9964.0  1312.2 10000.0
G    2.2 10192.0  1319.8 10514.0  1316.1 10819.0  1318.6 10989.0  1315.2 11044.0
G.   0.5 11203.0  1321.6 11445.0  1322.3 11634.0  1319.8 11968.0  1318.7 12107.0
GR1322.5 12170.0  1321.3 12228.0  1325.2 12397.0  1326.4 12792.0  1328.9 12823.0
GR1324.8 12860.0  1327.4 12972.0  1345.8 13057.0  1345.8 13259.0  1339.7 13321.0
GR1341.1 13419.0  1352.8 13484.0  1356.1 13572.0  1358.7 13589.0  1358.8 13606.0
GR1348.0 13629.0  1348.2 13655.0  1363.9 13681.0  1363.8 13698.0  1355.7 13713.0
GR1356.7 13851.0  1373.9 13912.0
HD 28.67       10     9900   11100
X1 28.95     34.0     9946   10353     1550      940     1465
X3     10
GR1376.3  9615.0  1376.6  9784.0  1371.6  9871.0  1325.0  9946.0  1314.8  9962.0
GR1312.3 10000.0  1317.7 10112.0  1321.6 10138.0  1324.5 10353.0  1322.2 10383.0
GR1322.5 10551.0  1318.3 10659.0  1325.0 10702.0  1324.6 11069.0  1325.8 11366.0
GR1324.5 11583.0  1322.1 11633.0  1324.9 11727.0  1323.6 12024.0  1329.7 12138.0
GR1326.2 12496.0  1330.1 12888.0  1335.9 13349.0  1348.0 13760.0  1355.7 13815.0
GR1355.7 13835.0  1345.5 13852.0  1345.5 13879.0  1354.8 13895.0  1352.9 13945.0
GR1360.9 14104.0  1364.9 14118.0  1364.9 14138.0  1376.2 14210.0
HD 28.95       10     9946   12000
X1 29.04     34.0     9828   10239      550      330      510
X3     10
GR1360.0     9770  1326.7  9808.0  1320.3  9815.0  1317.3  9828.0  1317.2  9859.0
GR1319.6  9940.0  1317.2 10000.0  1317.2 10048.0  1322.9 10073.0  1324.3 10239.0
GR1324.4 10414.0  1321.2 10499.0  1319.4 10584.0  1326.7 10638.0  1326.0 10868.0
GR1326.7 11104.0  1325.3 11444.0  1322.9 11472.0  1324.3 11521.0  1323.1 11750.0
GR1330.4 11802.0  1330.3 12323.0  1331.2 12554.0  1336.4 12706.0  1332.2 12882.0
GR1335.8 13217.0  1343.9 13578.0  1351.5 13599.0  1352.4 13621.0  1344.3 13633.0
GR1344.4 13654.0  1357.1 13668.0  1357.5 13697.0  1379.5 13780.0
HD 29.04       10     9800   11700
X1 29.54     30.0     9846   10150     2750     2235     2640
X3     10
GR1378.7  9025.0  1375.5  9068.0  1350.7  9135.0  1348.6  9179.0  1340.7  9198.0
GR1332.4  9217.0  1333.5  9321.0  1333.9  9460.0  1331.2  9697.0  1328.7  9726.0
GR1328.4  9758.0  1332.9  9782.0  1332.2  9846.0  1327.0  9882.0  1326.7 10000.0
GR1326.7 10116.0  1340.7 10150.0  1343.0 10343.0  1346.5 10482.0  1348.3 10927.0
GR1347.8 11457.0  1349.2 11687.0  1354.2 11697.0  1354.2 11723.0  1345.8 11737.0
G  45.8 11763.0  1355.3 11783.0  1355.4 11812.0  1352.6 11829.0  1378.3 11981.0
    .54       10     9210   10200
X.   .611     31.0     9791   10094      315      315      375
X3     10
GR1377.8  8825.0  1353.2  9052.0  1337.2  9136.0  1336.3  9285.0  1332.4  9541.0
GR1332.9  9713.0  1334.0  9791.0  1328.9  9812.0  1328.9  9849.0  1331.6 10000.0
GR1331.6 10094.0  1342.3 10133.0  1351.2 10244.0  1345.5 10331.0  1349.1 10528.0
GR1349.1 10688.0  1349.9 10923.0  1353.4 10966.0  1353.4 11037.0  1345.1 11072.0
GR1345.1 11124.0  1352.5 11156.0  1352.5 11163.0  1345.4 11178.0  1345.5 11204.0
GR1353.7 11221.0  1353.4 11251.0  1351.1 11259.0  1353.1 11405.0  1358.4 11533.0
GR1378.5 11635.0
HD29.611       10     9000   10200
NC 0.055    0.055    0.040
X1 29.80     16.0     9882   10205      980     1025     1025
X3     10
GR1378.4  9270.0  1373.4  9347.0  1338.8  9419.0  1335.4  9475.0  1340.8  9512.0
GR1342.7  9656.0  1338.9  9882.0  1331.2  9924.0  1331.4 10000.0  1332.7 10180.0
GR1337.6 10205.0  1337.6 10215.0  1327.7 10335.0  1336.3 10521.0  1344.4 10610.0
GR1349.2 10676.0
HD 29.80       10     9882   10600
X1 30.07     17.0     9925   10098     1425     1440     1420
X3     10
GR1369.4  9325.0  1363.9  9463.0  1360.9  9604.0  1341.5  9665.0  1343.1  9728.0
GR1340.8  9781.0  1340.4  9910.0  1344.6  9925.0  1334.4  9986.0  1334.4 10000.0
GR1335.0 10060.0  1344.5 10098.0  1343.6 10114.0  1336.6 10132.0  1334.0 10261.0
GR1365.9 10306.0  1365.0 10356.0
HD 30.07       10     9600   10300
X1 30.26     12.0     9749   10135      870     1090     1005
X3     10
GR1357.2  9625.0  1361.9  9711.0  1342.1  9749.0  1338.9 10000.0  1339.3 10135.0
GR1341.7 10314.0  1347.9 10338.0  1348.7 10444.0  1341.6 10545.0  1341.7 10604.0
GR1363.6 10643.0  1389.4 10743.0
HD 30.26       10     9700   10250
X1 30.73     14.0     9881   10075     2455     2470     2460
X3     10
XL                           9850    10250
G   59.9  9710.0  1369.1  9839.0  1345.2  9881.0  1345.6 10000.0  1345.6 10075.0
    32.6 10148.0  1349.9 10202.0  1355.7 10242.0  1355.7 10397.0  1354.4 10481.0
G..57.6 10623.0  1356.4 10951.0  1351.7 11023.0  1394.0 11123.0
HD 30.73       10     9850   10250
X1 30.82     12.0     9924   10201      500      370      500
X3     10
GR1378.3  9630.0  1379.5  9833.0  1375.4  9865.0  1345.2  9924.0  1346.7 10000.0
GR1352.0 10201.0  1347.0 10358.0  1353.5 10398.0  1358.1 10582.0  1357.9 10879.0
GR1354.5 11132.0  1399.1 11244.0
HD 30.82       10     9900   10400
```

```
X1 31.39    17.0    9792   10080    2900    3165    2970
GR1397.8  9290.0  1386.7  9342.0  1392.7  9386.0  1393.4  9470.0  1356.5  9526.0
GR1354.7  9561.0  1361.2  9643.0  1363.1  9792.0  1359.4  9942.0  1356.8  9978.0
G   6.9 10000.0  1357.4 10080.0  1361.5 10242.0  1360.1 10387.0  1368.0 10456.0
C    8.6 10528.0  1407.9 10633.0
HL 31.39      10    9550   10400
X1 31.86    10.0    9894   10261    2550    2485    2505
X3    10
GR1411.1  8955.0  1408.4  9155.0  1407.3  9490.0  1362.0  9604.0  1364.9  9727.0
GR1366.7  9894.0  1366.7 10000.0  1365.3 10261.0  1394.3 10321.0  1420.6 10419.0
HD 31.86      10    9500   10300
NC 0.045   0.050   0.045
X1 32.43    14.0    9852   10112    2885    2970    2980
X3    10
GR1424.1  9340.0  1415.1  9438.0  1371.3  9508.0  1372.3  9554.0  1363.8  9607.0
GR1372.6  9692.0  1375.5  9852.0  1373.4  9965.0  1370.7 10000.0  1372.7 10073.0
GR1383.1 10112.0  1388.9 10373.0  1403.2 10437.0  1436.0 10487.0
HD 32.43      10    9450   10200
X1 32.72    28.0    9879   10150    1725    1145    1535
X3                         9435  1408.2   10524  1408.2
XL                         9600   10500
GR1434.8  9435.0  1432.6  9475.0  1394.5  9555.0  1393.9  9576.0  1380.1  9626.0
GR1383.9  9726.0  1399.6  9817.0  1396.5  9879.0  1372.0  9942.0  1369.9  9977.0
GR1365.7 10000.0  1364.0 10009.0  1363.8 10024.0  1383.9 10045.0  1406.8 10150.0
GR1409.3 10188.0  1395.8 10272.0  1401.6 10321.0  1372.1 10380.0  1373.6 10439.0
GR1397.0 10476.0  1408.2 10524.0  1404.1 10567.0  1380.2 10630.0  1379.6 10680.0
GR1389.5 10710.0  1390.0 10780.0  1442.6 10849.0
HD 32.72      10    9600   10700
X1 32.86    12.0    9928   10155     680     990     760
X3    10
GR1423.4  9670.0  1424.3  9719.0  1386.4  9797.0  1381.2  9855.0  1380.4  9928.0
GR1374.9 10000.0  1380.6 10079.0  1386.5 10155.0  1382.6 10239.0  1386.6 10279.0
GR1385.4 10331.0  1421.4 10564.0
HD 32.86      10    9800   10200
X1 32.92     9.0    9891   10143     290     370     310
X3                         9680    1390   10180    1390
GR1433.1  9680.0  1429.0  9769.0  1382.7  9891.0  1381.0 10000.0  1383.1 10143.0
GR1390.8 10230.0  1387.5 10331.0  1411.9 10412.0  1427.5 10507.0
HD 32.92      10    9890   10180
      ------------STATE ROUTE 74---------
1    984      33    9962   10011     338     358     343
X3    10
GR1427.7  9750.0  1425.2  9750.1  1391.6    9820  1391.6    9823  1391.6  9823.1
GR1389.7    9833  1389.7  9833.1  1389.7    9837  1385.5    9851    1384    9900
GR1385.8    9904  1385.8    9909  1385.8  9909.1  1386.6    9919  1386.6  9919.1
GR1386.6    9962  1380.0    9985  1380.0  9985.1  1380.0    9995    1380  9995.1
GR1378.4    9997  1380.2   10011  1382.2   10018  1384.2   10050  1386.8   10053
GR1387.9   10065  1387.9 10065.1  1390.7   10075  1390.7 10075.1  1392.3   10091
GR1423.8 10149.9  1426.0 10150.0  1427.0 10150.1
HD32.984       0       0       0
X132.998     9.0    9962   10108      72      72      72
      ------------*************************------------
X3    10
GR1434.1  9610.0  1433.1  9762.0  1389.0  9851.0  1386.3  9920.0  1381.4 10000.0
GR1393.1 10108.0  1413.1 10164.0  1417.9 10358.0  1440.7 10405.0
HD32.998      10    9851   10108
NC 0.045   0.045   0.050
       ------------DOWNSTREAM OF MORGAN CITY WASH---------
X1 33.41    12.0    9944   10366    1880    2270    2170
X3    10
GR1448.1  9750.0  1426.7  9864.0  1408.3  9944.0  1386.9 10000.0  1389.1 10157.0
GR1406.8 10366.0  1404.5 10483.0  1409.5 10576.0  1422.7 10626.0  1423.4 10668.0
GR1433.5 10685.0  1437.7 10687.0
HD 33.41      10    9900   10400
X1 33.82    20.0    9861   10068    2165    2220    2175
X3    10
GR1454.2  9465.0  1454.2  9506.0  1434.5  9527.0  1434.5  9538.0  1450.5  9565.0
GR1408.8  9662.0  1402.1  9714.0  1409.2  9795.0  1417.1  9861.0  1387.4  9966.0
GR1387.4 10000.0  1387.4 10023.0  1405.9 10068.0  1408.6 10117.0  1426.7 10204.0
GR1425.4 10292.0  1433.9 10347.0  1428.1 10416.0  1427.2 10466.0  1450.9 10600.0
HD 33.82      10    9600   10200
EJ
T4    AGUA FRIA RIVER SEDIMENT TREND ANALYSIS  FCD 99-24
T5    NEW WADDELL DAM TO GILA RIVER  KIMLEY-HORN AND ASSOCIATES
T6    BED GRADATIONS FROM FIELD SAMPLES
      FULL RANGE OF SANDS AND GRAVELS
1     SEDIMENT TRANSPORT FUNTION:YANG'S STREAM POWER
I1             1       0
I4             4       1      10
LQ          5000    7000   17000   55000
LT          6457   10880   33475  146960
LF   VFS 0.02563 0.03675 0.01795 0.00716
LF    FS 0.13772 0.16853 0.13200 0.10199
LF    MS 0.21035 0.22940 0.21429 0.21542
```

```
LF     CS 0.23112 0.22521 0.22541 0.25124
LF    VCS 0.36207 0.32486 0.38978 0.39271
LF    VFG 0.00367 0.00255 0.00203 0.00119
I      FG 0.00683 0.00452 0.00379 0.00284
I      MG 0.01083 0.00681 0.00677 0.00652
LF     CG 0.00587 0.00134 0.00686 0.01048
LF    VCG 0.00073 0.00000 0.00108 0.01041
PF            .160       1      19    12.5      99     9.5      98     6.3      97
PFC 4.75       96    2.36      94       2      94    1.18      90     0.6      71
PFC0.425       44     0.3      19    0.15       2   0.075       1
PF            .440       1     9.5     6.3      99     4.8      99     2.4      98
PFC    2       97    1.18      94     0.6      83   0.425      68     0.3      47
PFC 0.15       15   0.075       4
PF            .730       1      19     9.5      99     6.3      98    4.75      96
PFC 2.36       93       2      91    1.18      81     0.6      56    .425      34
PFC  0.3       15    0.15       2   0.075       1
PF           1.330       1     9.5    2.36      99       2      98    1.18      94
PFC  0.6       68   0.425      40     0.3      16    0.15       5   0.075       4
PF           2.600       1      25      19      99    12.5      99     9.5      99
PFC  6.3       98    4.75      98    2.36      96       2      95    1.18      92
PFC  0.6       79   0.425      65     0.3      47    0.15      16   0.075       8
PF           3.767       1    37.5      25      98      19      97    12.5      96
PFC  9.5       94     6.3      92    4.75      91    2.36      87       2      86
PFC 1.18       78     0.6      62   0.425      50     0.3      36    0.15      19
PFC0.075       13
PF           4.790       1    37.5      25      98      19      96    12.5      92
PFC  9.5       89     6.3      85    4.75      82    2.36      80       2      79
PFC 1.18       69     0.6      45   0.425      28     0.3      15    0.15       5
PFC0.075        3
PF           5.380       1      19    4.75      99    2.36      98       2      98
PFC 1.18       93     0.6      64   0.425      36     0.3      14    0.15       2
PFC0.075        2
PF           5.689       1      19     6.3      98    4.75      96    2.36      89
PFC    2       86    1.18      71     0.6      45   0.425      27     0.3      12
PFC 0.15        2   0.075       2
PF           6.990       1    12.5    4.75      99    2.36      96       2      94
PFC 1.18       82     0.6      49   0.425      26     0.3      10    0.15       2
PFC0.075        1
PF           8.000       1      19    12.5      99     9.5      98     6.3      96
     1.75       95    2.36      91       2      90    1.18      79     0.6      54
     .425       37     0.3      22    0.15       5   0.075       3
PF           8.992       1      50    37.5      98      25      97      19      95
PFC 12.5       94     9.5      91     6.3      88    4.75      85    2.36      80
PFC    2       78    1.18      67     0.6      44   0.425      29     0.3      18
PFC 0.15        8   0.075       5
PF           9.885       1      50    37.5      99      25      94      19      92
PFC 12.5       90     9.5      89     6.3      87    4.75      86    2.36      82
PFC    2       79    1.18      65     0.6      30   0.425      16     0.3      11
PFC 0.15        7   0.075       5
PF          11.029       1      50    37.5      99      25      96      19      93
PFC 12.5       88     9.5      83     6.3      77    4.75      73    2.36      66
PFC    2       62    1.18      46     0.6      18   0.425       9     0.3       6
PFC 0.15        2   0.075       0
PF          11.428       1    37.5      25      98      19      93    12.5      86
PFC  9.5       81     6.3      73    4.75      67    2.36      61       2      59
PFC 1.18       48     0.6      33   0.425      27     0.3      24    0.15      20
PFC0.075       18
PF          12.470       1      50    37.5      95      25      88      19      82
PFC 12.5       75     9.5      70     6.3      64    4.75      61    2.36      48
PFC    2       46    1.18      35     0.6      18   0.425       9     0.3       4
PFC 0.15        1   0.075       0
PF          13.467       1    37.5      25      99      19    98.5    12.5      98
PFC  9.5       97     6.3    96.5    4.75    96.2    2.36    96.1       2      96
PFC 1.18       93     0.6      79   0.425      58     0.3      33    0.15       7
PFC0.075        1
PF          14.430       1    37.5      25      99      19      99    12.5      99
PFC  9.5       99     6.3      99    4.75      98    2.36      95       2      93
PFC 1.18       80     0.6      46   0.425      25     0.3      13    0.15       4
PFC0.075        2
PF          15.719       1    62.5    37.5      88      25      85      19      80
PFC 12.5       76     9.5      73     6.3      69    4.75      66    2.36      62
PFC    2       59    1.18      45     0.6      28   0.425      23     0.3      21
PFC 0.15       13   0.075       5
PF          16.482       1      25      19      99    12.5      97     9.5      96
P   6.3        92    4.75      90    2.36      85       2      81    1.18      62
     0.6       24   0.425       9     0.3       4    0.15       1   0.075       0
          16.612       1      75    37.5      92      25      85      19      80
PFC 12.5       73     9.5      70     6.3      65    4.75      62    2.36      49
PFC    2       44    1.18      29     0.6      16   0.425      11     0.3       6
PFC 0.15        2   0.075       1
PF          16.990       1      50    37.5      98      25      95      19      93
PFC 12.5       91     9.5      90     6.3      88    4.75      87    2.36      84
PFC    2       82    1.18      75     0.6      58   0.425      41     0.3      22
PFC 0.15        5   0.075       2
```

```
PF        17.821       1      50    37.5      92      25      85      19      73
PFC 12.5      60     9.5      53     6.3      47    4.75      44    2.36      36
PFC    2      34    1.18      25     0.6      12   0.425       6     0.3       3
P     15       1   0.075       0
P         18.275       1      50    37.5      94      25      83      19      76
PFC 12.5      66     9.5      59     6.3      50    4.75      45    2.36      39
PFC    2      36    1.18      27     0.6      19   0.425      15     0.3      13
PFC 0.15      11   0.075       9
PF        18.962       1    62.5    37.5      87      25      75      19      70
PFC 12.5      63     9.5      59     6.3      54    4.75      50    2.36      45
PFC    2      43    1.18      34     0.6      19   0.425      11     0.3       5
PFC 0.15       1   0.075       0
PF        19.920       1      50    37.5      96      25      87      19      82
PFC 12.5      75     9.5      70     6.3      65    4.75      61    2.36      53
PFC    2      50    1.18      35     0.6      14   0.425       7     0.3       5
PFC 0.15       2   0.075       1
PF        21.061       1    62.5    37.5      85      25      76      19      69
PFC 12.5      59     9.5      53     6.3      45    4.75      40    2.36      34
PFC    2      32    1.18      25     0.6      15   0.425      11     0.3       9
PFC 0.15       6   0.075       5
PF        21.893       1      50    37.5      98      25      98      19      92
PFC 12.5      83     9.5      77     6.3      68    4.75      63    2.36      51
PFC    2      46    1.18      27     0.6      10   0.425       5     0.3       3
PFC 0.15       1   0.075       1
PF        22.462       1    62.5    37.5      91      25      83      19      78
PFC 12.5      73     9.5      68     6.3      62    4.75      58    2.36      48
PFC    2      45    1.18      32     0.6      15   0.425       7     0.3       3
PFC 0.15       0   0.075       0
PF        23.409       1    62.5    37.5      91      25      83      19      75
PFC 12.5      66     9.5      61     6.3      54    4.75      51    2.36      44
PFC    2      42    1.18      32     1.6      18   0.425      11     0.3       6
PFC 0.15       2   0.075       2
PF        24.543       1    62.5    37.5      84      25      76      19      70
PFC 12.5      64     9.5      60     6.3      54    4.75      52    2.36      47
PFC    2      45    1.18      36     0.6      21   0.425      13     0.3       9
PFC 0.15       4   0.075       2
PF        25.666       1      50    37.5      97      25      88      19      81
PFC 12.5      74     9.5      69     6.3      64    4.75      61    2.36      54
PF     2      52    1.18      43     0.6      21   0.425       8     0.3       3
I     .15       2   0.075       1
P         25.860       1    37.5      25      98      19      96    12.5      91
PFC  9.5      87     6.3      80    4.75      74    2.36      56       2      46
PFC 1.18      27     0.6       7   0.425       3     0.3       2    0.15       2
PFC0.075       1
PF        26.290       1      19     9.5      98     6.3      97    4.75      92
PFC 2.36      84       2      80    1.18      22     0.6      18   0.425       6
PFC  0.3       3    0.15       2   0.075       2
PF        26.730       1      50    37.5      96      25      93      19      92
PFC 12.5      88     9.5      84     6.3      80    4.75      77    2.36      67
PFC    2      62    1.18      39     0.6      14   0.425       9     0.3       7
PFC 0.15       6   0.075       6
PF        27.680       1      50    37.5      99      25      97      19      92
PFC 12.5      88     9.5      85     6.3      78    4.75      73    2.36      61
PFC    2      56    1.18      34     0.6      10   0.425       5     0.3       3
PFC 0.15       3   0.075       3
PF        30.070       1      50    37.5      97      25      88      19      84
PFC 12.5      73     9.5      67     6.3      55    4.75      53    2.36      43
PFC    2      40    1.18      31     0.6      21   0.425      17     0.3      14
PFC 0.15      11   0.075       9
PF        30.820       1    37.5      25      99      19      97    12.5      95
PFC  9.5      94     6.3      90    4.75      89    2.36      86       2      85
PFC 1.18      76     0.6      61   0.425      50     0.3      35    0.15      11
PFC0.075       4
PF        31.860       1    37.5      25      94      19      92    12.5      91
PFC  8.5      90     6.3      89    4.75      88    2.36      88       2      88
PFC 1.18      86     0.6      74   0.425      60     0.3      43    0.15      17
PFC0.075       8
PF        32.430       1   32.64    2.36      99       2      98    1.18      95
PFC  0.6      84   0.425      69     0.3      52    0.15      25   0.075      12
PF        32.998       1    62.5    37.5      97      25      91      19      84
PFC 12.5      74     9.5      67     6.3      57    4.75      51    2.36      40
PFC    2      37    1.18      27     0.6      18   0.425      14     0.3      12
PFC 0.15      10   0.075       7
$LOCAL
J            0.1    1000    5000   10000   25000
.            0.1    1094    6855   16015   51300
L    VFS 0.28256 0.28256 0.25945 0.28352 0.27310
LFL   FS 0.43291 0.43291 0.40442 0.37836 0.39708
LFL   MS 0.14372 0.14372 0.16223 0.16477 0.16029
LFL   CS 0.10623 0.10623 0.11610 0.11564 0.11399
LFL  VCS 0.03200 0.03200 0.04974 0.04723 0.34616
LFL  VFG 0.00126 0.00126 0.00559 0.00589 0.00464
LFL   FG 0.00076 0.00076 0.00197 0.00380 0.00293
LFL   MG 0.00056 0.00056 0.00028 0.00067 0.00050
```

```
LFL   CG 0.00000 0.00000 0.00022 0.00012 0.00011
LFL  VCG 0.00000 0.00000 0.00000 0.00000 0.00000
$HYD
$    NG
R             12    5000    5000          912.55  913.39   913.9  914.53   914.9
RC         915.38   915.8  916.05   916.3  916.70   917.0  917.24
          ***********RUN 30 DAYS OF 9,000 CFS ************************
*   AB  TIME STEP NO 1
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 2
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 3
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 4
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 5
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 6
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 7
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 8
Q   9000
T     60
X           0.01       1
     B  TIME STEP NO 9
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 10
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 11
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 12
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 13
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 14
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 15
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 16
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO  17
Q   9000
T     60
X           0.01       1
     B  TIME STEP NO 18
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 19
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 20
```

```
Q   9000
T     60
X           0.01       1
*    B  TIME STEP NO 21
(    )00
T     60
X           0.01       1
*   AB  TIME STEP NO 22
Q   9000
T     60
X           0.01       1
*   AB TIME STEP NO 23
Q   9000
T     60
X           0.01       1
*   AB  TIM STEP NO  24
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 25
Q   9000
T     60
X          0.005       1
*   AB  TIME STEP NO 26
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 27
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 28
Q   9000
T     60
X           0.01       1
*   AB  TIME STEP NO 29
Q   9000
T     60
X           0.01       1
*    B  TIME STEP NO 30
(    000
T     60
X           0.01       1
         *************SGM1.DAT******************
         ***DREDGE ALL MINES PRIOR TO 100-YEAR***
         ***HYDROGRAPH                      ****
         ****************************************
$DREDGEB
$NODREDGE
       -----100-YEAR HYDROGRAPH------
*   AB  TIME STEP NO 31
Q   9000     100
T     60      60
X          0.005    0.06
*       TIME STEP NO 32
Q   9000     100
W   0.01
*   AB  TIME STEP NO 33
Q   9000     800
X         0.0001    0.08
*       TIME STEP NO 34
Q   9000     800
W   0.01
*   AB  TIME STEP NO 35
Q  18000    7000
X           0.01    0.04
*       TIME STEP NO 36
Q  18000    7000
W   0.01
*   AB  TIME STEP NO 37
Q  36000   17000
X           0.01    0.06
*       TIME STEP NO 38
Q  36000   17000
W   0.01
*    B  TIME STEP NO 39
(    000   20000
X           0.01    0.04
*       TIME STEP NO 40
Q  44000   20000
W   0.01
*   AB  TIME STEP NO 41
Q  54000   24000
X           0.01    0.04
```

```
*       TIME STEP NO 42
Q  54000   24000
W   0.01
*    B  TIME STEP NO 43
Q    000   22000
X           0.01    0.04
*       TIME STEP NO 44
Q  52000   22000
W   0.01
*   AB  TIME STEP NO 45
Q  44000   18000
X           0.01    0.04
*       TIME STEP NO 46
Q  44000   18000
W   0.01
*   AB  TIME STEP NO 47
Q  30000   12000
X           0.01    0.06
*       TIME STEP NO 48
Q  30000   12000
W   0.01
*   AB  TIME STEP NO 49
Q  20000    8000
X          0.001    0.06
*       TIME STEP NO 50
Q  20000    8000
W   0.01
*   AB  TIME STEP NO 51
Q   9000    4000
X          0.001    0.13
*       TIME STEP NO 52
Q   9000    4000
W   0.01
*   AB  TIME STEP NO 53
Q   5500     500
X          0.01    0.33
*       TIME STEP NO 54
Q   5500     500
W   0.01
```

EXHIBIT H

Sediment Trend Analysis Technical Memorandum No. 6 Revised
KHA Project No. 091131004

Grade Control Structures

Number	Location	Length (ft)	Top Width (ft)	Top Elev. (ft)	Bottom Elev. (ft)	U/S Slope ('/ft)	D/S Slope ('/ft)
1	Approx. 100 feet downstream of Indian School Rd.	1367	10	1000.00	982.00	0.0025	0.0019
2	Approx. 500 feet downstream of Thomas Rd.	1050	8	988.65	968.65	0.0024	0.0021
3	Approx. 1500 feet upstream of McDowell Rd.	1050	8	979.94	959.94	0.0021	0.0020
4	Approx. 500 feet downstream of I-10	1400	8	970.00	950.00	0.0020	0.0018
5	Approx. 1800 feet upstream of Buckeye Rd.	1100	8	958.50	936.50	0.0018	?

* Information for No. 1 is from a different set of plans than the other four

Grade Control Location	HEC-6 Cross Sections (river mile)	Bed Sediment Reservoir Depth (ft)	Comments
Upstream Buckeye	4.0920	0	CVL HEC-2 Cross section
	4.0940	0	CVL HEC-2 Cross section
Downstream I-10	5.2010	0	CVL HEC-2 Cross section
	5.2030	0	CVL HEC-2 Cross section
Upstream McDowell	6.0680	0	Copied 6.07 section to upstream sill
	6.0700	0	CVL HEC-2 Cross section
Downstream Thomas	6.8880	0	Copied 6.89 section to upstream sill
	6.8900	0	CVL HEC-2 Cross section
Downstream Indian School	7.9880	0	Copied 7.99 section to upstream sill
	7.9900	0	CVL HEC-2 Cross section

BRIDGE DATA					
BRIDGE	**HEC-RAS Sta.**	**Deck Elev.**	**Low Chord**	**No. of Piers**	**Scour Counter Measures**
Buckeye Rd	3.7405	974.4	967.0	14	
Van Buren Road	4.7565	992.8	960.3	9	2600 cy of rip rap at piers
I-10		994.4	987.7	19	
McDowell Rd	5.6945	1003.5	996.8	9	4078 cy of rip rap at abutments, 960 cy rip rap at piers
Indian School Rd	8.005	1021.3	1013.3	17	
Camelback Rd	9.184	1041.3	1031.8		
Glendale Ave	11.41	1065.4	1057.5	5	640 cy of dumped rip rap at western most pier
Olive Ave	13.4585	1098.2	1086.4		
Grand Ave - U.S. 60	16.494	1133.6	1126.6	3	dumped rip rap at the toe of slopes, no rip rap at piers
Santa Fe Railroad	16.516	1140.1	1129.9		
Bell Road	18.97	1177.0	1166.2	8	
Highway 74	32.9885	1432.3	1427.3	4	9500 cy of dumped rip rap at west abutment

AT-GRADE CROSSING DATA					
CROSSING	**HEC-RAS Sta.**	**Centerline Elev.**	**Length (ft)**	**Width (ft)**	**Scour Counter Measures**
Lower Buckeye Rd.	2.7	942.7	2000	48	
Northern Ave.	12.42	1054.0	~4600	48	
Rose Garden Ln.	21.798	1188.4	~1800	15	
Jomax	25.666	1257.8	~2100	12	

WATER CROSSING DATA					
CROSSING	**HEC-RAS Sta.**	**Centerline Elev.**	**Length (ft)**	**Width (ft)**	**Scour Counter Measures**
Beardsley Canal	29.6175	1353.98	1347		

Crossing Name	El Paso [24]	APS [22]	Cox Com [23]	SW Gas [63]	Reports	Bridges	Levee	Siphons
Buckeye Road Bridge (MC 85) & RR	DWG. No. 2041.0-1A	No UG APS		N9W4, N9W3, N8W4, N8W3	**65**-Scour	**65**-CorrectiveDesign		
Van Buren Street Bridge		No UG APS		N11W4, N11W3, N10W4, N10W3	**372**-Scour	**76**-AsBuilt		
I-10 Bridge		No UG APS			**352**-Scour	**77**-AsBuilt, **79**-AsBuilt, **92**-AsBuilt	**57**-AsBuilt	
McDowell Road Bridge		No UG APS			**373**-Scour	**80**-AsBuilt, **80A**-AsBuilt, **96**-AsBuilt	**57**-AsBuilt	
Roosevelt Irrigation District Canal		No UG APS						**61**-AsBuilt
Indian School Road Bridge	DWG. No. 1203.0-24A	No UG APS			**47**-Scour, **66**-Scour, **52**-Scour	**66**-CorrectiveDesign, **84**-AsBuilt, 380-Scour Plans	**61**-AsBuilt, **66**-AsBuilt	
SRP Grand Canal		No UG APS						**21**-AsBuilt
Camelback Road Bridge		No UG APS			**74**-Bridge Design Report	**74**-DesignCalculations, **82**-AsBuilt, **82A**-AsBuilt, **86**-AsBuilt		
Glendale Avenue Bridge		No UG APS		N23W2, N22W2	**89**-Scour	**81**-AsBuilt, **83**-AsBuilt, **83A**-AsBuilt		
Northern Avenue Bridge		No UG APS				**85**-AsBuilt		
Olive Avenue Bridge		No UG APS	27-02, 27-01, 26-02, 26-01	N27W2, N26W2		**85**-AsBuilt		
Grand Avenue Bridge (AZ 60) & RR		No UG APS		32-1	**351**-Scour Report	**37**-DrainageDesign, **91**-AsBuilt		
Bell Road Bridge		No UG APS	37-02, 37-01, 36-02, 36-01	N37W2, N37W1, N36W2, N36W1	**90**-Scour, **73**-Bridge Design	**73**-Replacement, **88**-AsBuilt		
Beardsley Canal		No UG APS			Report			**71**-Specifications
Central Arizona Project Canal		No UG APS						**71**-Specifications, **353**-AsBuilts
Highway 74						**348**-AsBuilt		