

TABLES

TABLE 2-1A:
TRIBUTARY DRAINAGE
SITE INVESTIGATION
VERIFICATION RESULTS
ALONG RIGHT MARGIN OF
SRP INNER VALLEY,
LOOKING DOWNSTREAM
(EAST)

Table 2-1A. Tributary Drainage Site Investigation Verification Results Along Right Margin of SPR Inner Valley, Looking Downstream (East)

Sub-watershed	River Segment	River Mile	AZGS Site No.	AZGS Notes	Verification Result
Upper San Pedro	157 - 143	153	1	It seems clear the Holocene San Pedro eroded into older deposits as far from the modern channel as the topographic expression of basin fill bluffs lining the east side of the modern San Pedro trough. Today the river is incised into its own Holocene floodplain deposits but earlier in the Holocene the active channel carved a path through basin fill alluvium at this location. Recent archaeological studies (Ballenger, 2010) indicate all exposed sediment in Palominas Arroyo may be Holocene in age. Holocene San Pedro deposits exposed in Palominas Arroyo are located as much as 2,200 ft outside mapped Holocene river deposits on AZGS surficial maps. Because this location corresponds with the topographic surface expression of nearby basin fill deposits which predate the Holocene San Pedro River it is likely this exposure offers the best known example of otherwise buried Holocene San Pedro channel deposits adjacent to basin fill bluffs outside the modern channel.	Support
		148.5	2	The arroyo was not well incised, exposing only the uppermost few feet of tributary alluvium. No exposures of underlying sedimentary relationships were observed. No observations were made at this location due to lack of exposure.	Inconclusive
		148	3	No observations were made at this location due to lack of exposure.	Inconclusive
		147	5	No observations were made at this location due to lack of exposure.	Inconclusive
	143 - 131	136	10	No observations were made at this location due to lack of exposure.	Inconclusive
	131 - 118	121.5	11	The well sorted, finer-grained beds resemble deposits commonly associated with Holocene San Pedro River floodplain deposition. It is also possible that the fine grained beds may be attributed to reworking of fine grained basin fill alluvium by Walnut Gulch. Because either mode of deposition could result in fine-grained deposition at this location, the origin of the fine grained layers cannot be conclusively determined based on field examination of these exposures.	Consistent
		119	12	No observations were made at this location due to a lack of exposure of San Pedro and tributary sedimentary relationships at the surface.	Inconclusive
	118 - 104	112	14	The lower, well-sorted, fine-grained alluvium resembles deposits commonly associated with Holocene San Pedro River floodplain deposition. It is also possible that the fine grained beds may be attributed to reworking of fine grained basin fill alluvium by Clifford Wash. Well-eroded basin fill hills are located upstream along Clifford Wash to the east. Because either mode of deposition could result in fine-grained deposition at this location, the origin of the fine grained layers cannot be conclusively determined based on field examination of these exposures.	Consistent
		108	15	Exposures of San Pedro deposits extend upstream in the arroyo for approximately 20-30 ft where they become buried. Upstream of this point the exposed deposits consist entirely of tributary alluvium.	Support
		107	16	In this location, close to the mapped boundary of the toe of tributary fans overlying fine grained Holocene San Pedro River deposits, it seems reasonable to associate the finer grained layers with dominant deposition by the San Pedro River.	Support
	118 - 104	105	18	The uppermost very poorly sorted deposits are interpreted to be derived from prograding tributary alluvial fans. These deposits overlie possible interbedded deposits of tributary and river alluvium. The finer grained interbeds could also have been deposited by lower energy splays or sheetflow in a distributary alluvial fan environment. The lowermost fine-grained, well-sorted deposits resemble deposits commonly associated with Holocene San Pedro River floodplain deposition. It is also possible that the fine grained beds may be attributed to reworking of fine grained basin fill alluvium by local drainages. Well-eroded basin fill hills are located upstream along the unnamed arroyo to the east. Because either mode of deposition could result in fine-grained deposition at this location, the origin of the fine grained layers cannot be conclusively determined based on field examination of these exposures.	Consistent
	104 - 91	99.5	22	The finer grained, well sorted, banded alluvial deposits present below the angular clast-bearing deposit may have been deposited by low energy distal fan deposition. These deposits also resemble fine grained river floodplain deposits but the position in the landscape and proximity to tall, well-dissected basin fill bluffs to the east which provide a continuous source of fine-grained sediment suggest these deposits were more likely emplaced in a tributary channel or fan environment. Although, because either mode of deposition could result in fine-grained deposition at this location, the origin of the fine grained layers cannot be conclusively determined based on field examination of these exposures.	Consistent
	Lower San Pedro	77 - 63	69.5	29	Although AZGS surficial mapping depicts tributary fan alluvium throughout this area at the surface, this exposure exhibits interfingering and concurrent deposition of Teran Wash and San Pedro River sediment in an aggrading distal fan/river floodplain environment up to 425 ft farther from the river than depicted on AZGS maps.
66			30	Holocene river alluvium is exposed in the banks of Hot Springs Wash up to 350 ft outside the boundary depicted on AZGS surficial geologic maps.	Support
37 - 24		32	35	Holocene river alluvium is exposed in arroyo walls of James Wash up to 600 ft outside mapped boundaries of Holocene River alluvium on AZGS surficial geologic maps.	Support



TABLE 2-1B:
TRIBUTARY DRAINAGE
SITE INVESTIGATION
VERIFICATION RESULTS
ALONG LEFT MARGIN OF
SRP INNER VALLEY,
LOOKING DOWNSTREAM
(WEST)

Table 2-1B. Tributary Drainage Site Investigation Verification Results Along Left Margin of SPR Inner Valley, Looking Downstream (West)

Sub-watershed	River Segment	River Mile	Site ID No.	AZGS Notes	Verification Result	
Upper San Pedro	157 - 143	148	4	No observations were made at these locations due to lack of exposure.	Inconclusive	
		143	6	The poorly sorted alluvium containing calcium carbonate nodules is interpreted as tributary alluvium composed mainly of reworked basin fill sediments. This deposit overlies a much better sorted, fine-grained deposit consistent with floodplain deposition by the San Pedro River. These exposures of fine grained floodplain alluvium are located up to 300 ft outside the mapped boundary of Holocene river alluvium on AZGS surficial maps. These fine-grained San Pedro deposits become buried a short distance upstream and are no longer exposed in the arroyo wall so the maximum lateral extent of these deposits is not visible.	Support	
	143 - 131	141.5	7	The poorly sorted alluvium containing angular clasts and abundant calcium carbonate nodules is interpreted to be tributary alluvium dominantly composed of reworked basin fill sediment. These tributary deposits overlie a much better sorted, fine-grained deposit consistent with floodplain deposition by the San Pedro River. The gray soil layers in the floodplain alluvium are apparent in other exposures of San Pedro floodplain and channel deposits to the south (Site 6) and may reflect a period of regional landscape stability along the San Pedro River prior to burial by progradation of tributary alluvial fans. These exposures of fine grained floodplain alluvium are located up to 175 ft outside the mapped boundary of Holocene river alluvium on AZGS surficial maps. These fine-grained San Pedro deposits become buried a short distance upstream and are no longer exposed in the arroyo wall so the maximum lateral extent of these deposits is not visible.	Support	
		140.5	8	No observations were made due to lack of exposure and difficulty of access.	Inconclusive	
	118 - 104	112	13	The poorly sorted beds containing angular to sub angular clasts are interpreted to be tributary alluvial deposits while the well-sorted, fine-grained alluvium strongly resembles floodplain deposits exposed in the channel walls of the San Pedro to the east. The uppermost layer at the top of the sequence exhibits little to no soil development and appears to have been deposited recently, probably in historical times prior to widespread incision along the San Pedro River. Deposits exposed along California Wash record alternating deposition of Holocene tributary and San Pedro River alluvium prior to deposition of young prograding tributary fan alluvium at the surface (uppermost unit). These exposures of Holocene San Pedro River alluvium are located up to 275 ft outside mapped deposits of Holocene river alluvium on AZGS surficial geologic maps.	Support	
	104 - 91	96	23	Laterally continuous exposures of multiple buried soils indicate punctuated landscape stability sufficient for soil development throughout a period of net aggradation in the Holocene. Widespread fine-grained deposition could have been achieved by broad, repeated, low energy floodplain deposition by the San Pedro. Coarser, poorly sorted tributary piedmont deposits overlying these fine-grained beds later prograded across these extensive floodplain deposits. This process repeated through time resulting in the alternating fine-coarse interbedding with soil development exposed in the arroyo today. It is possible the fine grained beds could also have been deposited by lower energy distal tributary fan progradation but the uniform particle size, excellent sorting, and laterally continuous buried soil layers seem more likely to result from widespread, low energy floodplain deposition by the San Pedro River. Probable Holocene river floodplain deposits are exposed in this arroyo up to 2,600 ft outside the mapped surficial boundary of Holocene river alluvium on AZGS geologic maps.	Support	
	91 - 77	89.5	25	The poorly sorted alluvium with angular gravels exposed at the top of the arroyo wall is interpreted as tributary channel and fan deposits. These deposits overlie finer-grained, well-sorted sandy to silty alluvium with well-rounded cobble lenses representing Holocene San Pedro floodplain and channel deposits with discontinuous tributary alluvial interbeds resulting from interfingering tributary and river deposition at this location in the Holocene. The buried soil near the top of the fine unit indicated a period of landscape stability occurred prior to latest Holocene fan progradation atop Holocene river floodplain deposits. The tributary sand to gravel cap becomes noticeably thinner near the modern San Pedro channel, indicating thinning tributary fan deposition atop laterally extensive and thick Holocene San Pedro floodplain deposits. Holocene river floodplain deposits are exposed in this arroyo up to 820 ft outside the mapped surficial boundary of Holocene river alluvium on AZGS geologic maps.	Support	
		89.5	26	The same interpretations described for photo SPR89.5W_A are applicable here although fewer poorly sorted tributary channel interbeds are present within the predominantly well-sorted fine-grained river floodplain deposits. This trend indicates increasing dominance of deposition by the San Pedro nearer the modern channel. Most of the tributary alluvium evident at this location is the thinning alluvial deposit at the top of the exposure. The vast majority of sediment exposed in cross section here is interpreted as Holocene river deposits while surficial mapping shows this area as Holocene tributary (Qy2) deposits. The surface is dominated by tributary alluvium at this location which is depicted in surficial AZGS geologic mapping yet it seems clear Holocene river deposits extends farther from the river in the subsurface than the surficial maps indicate.	Support	
	Lower San Pedro		79	27	No observations were made at this location due to lack of exposure of sedimentary relationships.	Inconclusive
		37 - 24	32.5	34	No observations were made at this location due to lack of sedimentary exposures.	Inconclusive



TABLE 2-2A:
UPPER SAN PEDRO
WATERSHED
PROFESSIONAL-LEVEL
LITHOLOGY LOGS IN
MAPPED FHA

Table 2-2A. Upper San Pedro Watershed Professional-level Lithology Logs in Mapped FHA

River Segment	River Mile	Log No. ¹	Log Identifier ²		Thickness Alluvium [ft]			
					≤ 25	25-70	≥ 70	
157 -143	155	1	55-	588973	18			
	155	2	55-	588975	20			
	154	3	55-	588968			73	
	154	4	55-	588969		37		
	154	5	55-	588970		34		
	154	6	55-	588971		34		
	154	7	55-	588972	21			
	154	8	55-	588974	16			
	153	10		Test Hole 1			40	
	153	11		Test Hole 2			32	
	153	12		Test Hole 3		19		
	153	13		Test Hole 4			27	
	153	14		Test Hole 5			27	
	153	15		Test Hole 6			38	
	150	16		55-	588965	20		
	150	17		55-	588966	20		
	150	18		55-	588967	19		
	148	19			B-1		50	
	148	20			B-2		60	
	148	21			B-3		60	
	148	22			B-4		50	
	147	23		55-	522010	9		
	146	24		55-	588950		28	
	146	25		55-	588951		59	
	146	26		55-	588952	12		
	146	27		55-	588953	24		
	146	28		55-	588954	20		
	146	29		55-	588955		27	
	146	30			Hereford No. 1		40	
	146	31			Hereford No. 2		63	
	146	32			Hereford No. 3		65	
	143	34		55-	588962	15.5		
	143	35		55-	588963	18.5		
	143	36		55-	588964	16		
	140	37		55-	588943	24		
	140	38		55-	588944		68	
	140	39		55-	588945		58	
	143 - 131	137	40	55-	219444			125
		137	42	55-	588947	23		
137		43		Test Hole 1			60	
137		44		Test Hole 2			40	
137		45		Test Hole 3			34	
137		46		Test Hole 4			41	
137		47		Test Hole 5			41	
137		48		Test Hole 6			47	
135		49			1LS		58	
135		50			2LS		40	
135		51			4LS		40	
135		52			5LS		40	
135		53			6LS		41	
135		54			LS-A			120
132		56		55-	588930		26.5	
132		57		55-	588931	12		
132		58		55-	588932	22		
132	59		55-	588933		33		
132	60		55-	588934	21			



Table 2-2A. Upper San Pedro Watershed Professional-level Lithology Logs in Mapped FHA

River Segment	River Mile	Log No. ¹	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
131 - 118	131	61	Boring 3CH		32	
	131	62	Boring 4CH		60	
	131	63	Boring 5CH		32	
	131	65	Boring CH-A			135
	131	66	Boring CH-B			115
	131	67	Boring CH-C			90
	127	68	55- 590131		40	
	127	69	55- 590132		30	
	127	70	55- 590133		40	
	126	71	55- 588936	13		
	124	72	55- 588958	14.33		
	124	74	55- 590606	15.5		
121	76	55- 590609	25			
118 - 104	117	77	55- 588956	20		
	117	78	55- 588957	16		
	106	88	55- 579872			130 ³
	106	89	55- 579874			160 ³
	106	90	55- 579877			130 ³
104 - 91	104	92	No. 1		50	
	104	93	No. 1A		50	
	104	94	No. 2		36	
	104	95	No. 4		34	
	104	96	No. 5	21		
	104	97	No. 6		44	
	104	98	No. 7		52	
	104	99	No. 8		36	
	101	100	55- 215011		70	
	99	102	1WB		60	
	99	103	2AEB		60	
	99	104	2EB		30	
	99	105	5WB			118
	99	106	7EB		30	
	99	107	No. 2A		60	
	99	108	No. 7		30	
99	109	No. 1		60		
99	110	No. 5			108	
91 - 77	83	111	55- 215009		70	

¹ 2014 Subflow Report Appendix D-1

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-2B:
LOWER SAN PEDRO
WATERSHED
PROFESSIONAL-LEVEL
LITHOLOGY LOGS IN
MAPPED FHA

Table 2-2B. Lower San Pedro Watershed Professional-level Lithology Logs in Mapped FHA

River Segment	River Mile	Log No. ¹	Log Identifier ²		Thickness Alluvium [ft]		
					≤ 25	25-70	≥ 70
37 - 24	32	117	55-	530124			80 ³
24 - 11	14	128	55-	912804		30	
	14	129	55-	912807			185
	13	130	55-	912805			125 ³
	13	131	55-	912806		30	
	13	132	55-	912838		35	
	11	133	55-	912835	25		
	11	134	55-	912836			90
11 - 0.0	11	135	55-	912837		30	
	6	138	55-	569977	18		
	6	139	55-	569978		27	
	6	140	55-	569984	18		
	6	141	55-	569986	17		
	6	142	55-	569990	15		
	6	143	55-	570118			81
	6	144	55-	570461	15		
	6	145	55-	570462	10		
	6	146	55-	570463	15		
	6	147	55-	570464	15		
	6	148	55-	570465	16		
	5	152	55-	569982	22		
	4	157	55-	569983	20		
	4	158	55-	569987	21		
	4	160	55-	569991		32	
	2	161	55-	569968		50	
	2	162	55-	569988		28	
	2	163	55-	569992		37	
1	164	55-	569974	20			
1	165	55-	570466	10			
1	166	55-	570467	10			
0	167	55-	541149			125	

¹ 2014 Subflow Report Appendix D-1

² Well Registration Number or other identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-3A:
UPPER SAN PEDRO
WATERSHED
PROFESSIONAL-LEVEL
LITHOLOGY LOGS IN
MAPPED THA

**TABLE 2-3A. UPPER SAN PEDRO WATERSHED PROFESSIONAL-LEVEL LITHOLOGY LOGS
IN MAPPED THA**

River Segment	River Mile	Log No. ¹	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
157 - 143	153	9	55- 588939		50	
	143	33	55- 588961		31	
143 - 131	137	41	55- 588946	24		
	135	55	Lewis Springs Bridge (LS-B)			130
131 - 118	122	75	55- 588929		47 ³	
118 - 104	114	79	55- 588940		37	
	112	80	Saint David Test Hole			88 ³
	106	87	55- 213889			88.5 ³
	105	91	55- 579875	11		
104 - 91	99	101	55- 911548		30	

¹ 2014 Subflow Report Appendix D-1

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-3B:
LOWER SAN PEDRO
WATERSHED
PROFESSIONAL-LEVEL
LITHOLOGY LOGS IN
MAPPED THA

**TABLE 2-3B. LOWER SAN PEDRO WATERSHED PROFESSIONAL-LEVEL
LITHOLOGY LOGS IN MAPPED THA**

River Segment	River Mile	Log No. ¹	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
50 - 37	38	112	55- 912839			90
37 - 24	34	114	55- 909430			105 ³
	34	115	55- 909431			105 ³
	34	116	55- 909432			105 ³
	31	119	55- 557296			250
	29	124	55- 624620			1410
11 - 0.0	24	125	55- 528575			75
	24	126	55- 528576			78
	24	127	55- 528577			78
	6	136	55- 569971		40	
	6	137	55- 569976	20		
	5	149	55- 569970		53	
	5	150	55- 569980		30	
	5	151	55- 569981		27	
	5	153	55- 569985	22		
	5	154	55- 569993		35	
	4	155	55- 569973		52	
	4	156	55- 569979	25		
	4	159	55- 569989	25		

¹ 2014 Subflow Report Appendix D-1

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-4A:
DRILLER LITHOLOGY LOGS
IN MAPPED THA BETWEEN
SAN PEDRO RIVER MILES
112-109

**Table 2-4a. Driller Lithology Logs in Mapped THA between
San Pedro River Miles 112 to 109**

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
118 - 104	253	123	55- 523768	0 ³		
	254	124	55- 501888			107 ³
	255	125	D18021028AAC			160 ³
	256	126	55- 505837			100 ³
	257		D18021028ABA			140 ³
	258		55- 610357			520 ³
	259	127	55- 501646			125 ³
	260		55- 503187			146 ³
	262	128	55- 557667			360
	263	129	55- 208281			320
	267	130	D18021033CAD			100
	268	131	55- 623663			100 ³
	270	132	D-18-21 28DBD3			102 ³
	271	133	55- 609171			100

¹ 2014 Subflow Report Appendix D-2

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-4B:
DRILLER LITHOLOGY LOGS
IN MAPPED THA BETWEEN
SAN PEDRO RIVER MILES
106-104

Table 2-4B. Driller Lithology Logs in Mapped THA between San Pedro River Miles 106 to 104

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
91 - 104 and 104 - 118	1	47	D17020035DCB		28 ³	
	2	48	55- 637519		41 ³	
	3	49	55- 217844		45 ³	
	4	50	55- 646492			85 ³
	5		55- 214953		30 ³	
	6	51	55- 545449			105 ³
	7		55- 545451			135 ³
	8	52	55- 508401			140 ³
	9	53	55- 200246		61 ³	
	10		55- 205946	18 ³		
	11	54	55- 578675			120 ³
	12	55	55- 085110	2 ³		
	13	56	55- 544251			160 ³
	14	57	55- 204222		30 ³	
	15		55- 805150	2 ³		
	16	58	55- 518592			109
	17	59	55- 204536			125 ³
	18		55- 553774		65 ³	
	19	60	55- 215849			125 ³
	135	61			65 ³	
	136	62	55- 594823			153 ³
	137	63	55- 217960	20 ³		
	138	64	55- 220929			133 ³
	139	65	55- 594574			135 ³
	140	66	55- 642081			85 ³
	141	67	D17021032DCC	Log Not Legible		
	142	68	55- 505755			140 ³
	143	69	55- 607860			132 ³
	144	70	55- 611467		65 ³	
	145	71	D-17-21 31DCC			108 ³
	146	72	55- 607858			125 ³
	147	73	D-17-21 32CCD3			100 ³
	148	74	D-17-21 32CDC1			80 ³
	153	75	55- 558877	0 ³		
	149	76	55- 906201	21 ³		
	154		55- 542381	0 ³		
155	55- 214791			45 ³		
156	77	55- 542260			145 ³	
157		55- 556575		55 ³		
158	78	55- 611425			90 ³	
159	79	55- 512182			130 ³	
160	80	55- 205876		69 ³		



Table 2-4B. Driller Lithology Logs in Mapped THA between San Pedro River Miles 106 to 104

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
91 - 104 and 104 - 118	161	81	55- 520286	20 ³		
	162	82	55- 520285			120 ³
	163		55- 520248	20 ³		
	164	83	55- 213248			71 ³
	165	84	55- 572047		26 ³	
	168	85	55- 537790	25 ³		
	169	86	55- 569101		30 ³	
	170		55- 568461	0 ³		
	171	87	55- 502962	0 ³		
	172		55- 539559		30 ³	
	173		D18021004CCC	3 ³		
	174	88	55- 602193			95 ³
	175	89	D18021005ABA	15 ³		
	176	90	55- 532134		45 ³	
	177	91	D18021005BA0			75 ³
	178		D18021005BA0			215
	179	92	55- 547720	20		
	180	93	D18021005CAA	Log Not Legible		
	181	94	55- 538522			85 ³
	182		55- 503019			130 ³
	183	95	D18021005DDD		60 ³	
	184		55- 532133		45 ³	
	185	96	55- 594360		45 ³	
	186		55- 206932			121 ³
	187	97	D18021006AAD	0 ³		
	188	98	55- 596097			112 ³
	189		55- 576951			120 ³
	191	99	55- 200763			120 ³
	194	100	55- 524041			140 ³
	197	101	55- 577270			110 ³
207	102	55- 530042			180 ³	
208		55- 204298		66 ³		
209		55- 530043			120 ³	
210	103	55- 528021		40		
211	104	55- 594007		66 ³		
212		55- 528022		62 ³		
213	105	55- 528008		53		
214		55- 528009		62		
215		55- 579875	11 ³			
221	106	55- 527753	20.5 ³			
222	107	55- 503725			115 ³	
223	108	D18021008AA0		40 ³		
224	109	D18021008AAA			258	
225		D18021008AAA		40 ³		



Table 2-4B. Driller Lithology Logs in Mapped THA between San Pedro River Miles 106 to 104

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
91 - 104 and 104 - 118	226	110	55- 503968		65 ³	
	227	111	55- 514443			72 ³
	228		55- 580914			105 ³
	229	112	55- 612032			105 ³
	234	113	55- 542261			113 ³
	235	114	D-18-20 01BBA			114 ³
	236	115	55- 625589		50 ³	
	237	116	55- 632942	0 ³		
	238	117	55- 633154			85 ³
	239	118	D-18-21 06ADA3			104 ³
	240	119	D-18-21 06ADA3			99
	241	120	55- 513537			240
	249	121	55- 513988	8 ³		
	250	122	D-18-21 09BBB1			315 ³

¹ 2014 Subflow Report Appendix D-2

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-4C:
DRILLER LITHOLOGY LOGS
IN MAPPED THA BETWEEN
SAN PEDRO RIVER MILES
99-96

Table 2-4C. Driller Lithology Logs in Mapped THA between San Pedro River Miles 99 to 96

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
104 - 91	35	18	55- 202860		50 ³	
	36	19	55- 549707	20 ³		
	37	20	D17020002BCA			88 ³
	38	21	55- 564240	0 ³		
	39		55- 572156	24 ³		
	44	22	55- 627407	15 ³		
	46	23	55- 513059		38 ³	
	47	24	D17020004DAA	0 ³		
	48	25	55- 644365			85 ³
	52	26	55- 617948			100 ³
	67	27	D17020010D00		50 ³	
	68	28	D17020010DD0			124 ³
	69	29	55- 588497		40	
	70		55- 588498		40	
	71		55- 588499		40	
	72		55- 546393		30	
	73		55- 546394		40	
	74		55- 546395		46	
	75		55- 546396		49	
	76		55- 546392		50	
	77		55- 551634		45	
	78		55- 551635		45	
	79		55- 570165		50	
	80	30	D17020011ABA	Log Not Legible		
	81	31	55- 217753			160 ³
	85	32	D17020011DDD			98 ³
	90	33	55- 501466	2 ³		
	91	34	55- 622190	15 ³		
	92	35	55- 600743			80 ³
	95	36	D17020015AA0			75 ³
	96	37	D-17-20 02ACC		60 ³	
	97	38	D-17-20 02BAA		65 ³	
98	39	D-17-20 02BAD1			150 ³	
99	40	55- 610353			123	
100	41	D-17-20 03AAD			112 ³	
101	42	55- 530046			120	
103	43	55- 521867		50 ³		
104	44	55- 506220		50 ³		
108	45	D-17-20 11ACD			127	
110	46	55- 515181			90 ³	

¹ 2014 Subflow Report Appendix D-2

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



TABLE 2-4D:
DRILLER LITHOLOGY LOGS
IN MAPPED THA BETWEEN
SAN PEDRO RIVER MILES
89-86

**Table 2-4D. Driller Lithology Logs in Mapped THA between
San Pedro River Miles 89 to 86**

River Segment	Log No. ¹	Location ID No.	Log Identifier ²	Thickness Alluvium [ft]		
				≤ 25	25-70	≥ 70
91 - 77	1	1	55- 641754			180 ³
	2	2	55- 502650			150 ³
	3	3	55- 503013			115 ³
	4		55- 520514		70 ³	
	5		D15020031CAD		50 ³	
	6	4	55- 532685			510
	7	5	55- 548257	0 ³		
	9	6	55- 600470			125 ³
	10		55- 600473		58 ³	
	11	7	55- 617962			124
	12	8	55- 600471			115
	14	9	55- 556314		50 ³	
	15	10	55- 568894	13 ³		
	16		55- 597667	9 ³		
	17	11	55- 565388	25 ³		
	18	12	55- 584760		28 ³	
	23	13	55- 583307			80 ³
	24	14	55- 562813	14 ³		
	25	15	55- 534449		40 ³	
	26	16	55- 521742			75 ³
32	17	D-16-20 08BAB			107 ³	

¹ 2014 Subflow Report Appendix D-2

² Well Registration Number or other Identifier

³ Contact with Basin-fill logged at base of alluvial deposits



**TABLE 3-1:
LENGTHS OF FHA
DETERMINED FROM STEPS
1, 2, AND 3**

Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

San Pedro - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	2,084.11	0.39	157
Step 3	6,210.68	1.18	157
Step 1	5,532.25	1.05	155
Step 2	4,529.64	0.86	154
Step 3	9,469.13	1.79	153
Step 1	1,241.87	0.24	151
Step 2	2,788.35	0.53	151
Step 3	4,098.58	0.78	150
Step 2	56,994.77	10.79	149
Step 1	2,736.25	0.52	136
Step 2	1,408.92	0.27	136
Step 1	806.89	0.15	135
Step 2	4,137.62	0.78	135
Step 1	351.32	0.07	134
Step 2	2,108.30	0.40	134
Step 1	10,943.93	2.07	134
Step 2	2,470.42	0.47	132
Step 1	6,467.20	1.22	132
Step 3	4,779.36	0.91	131
Step 2	1,303.16	0.25	130
Step 1	7,060.48	1.34	130
Step 2	848.87	0.16	128
Step 1	168.48	0.03	128
Step 2	3,152.24	0.60	128
Step 1	6,069.06	1.15	127
Step 2	477.94	0.09	126
Step 1	35.32	0.01	126
Step 2	761.22	0.14	126
Step 1	3,711.56	0.70	126
Step 3	5,935.39	1.12	125
Step 2	436.62	0.08	125
Step 1	104.81	0.02	125
Step 2	8,175.35	1.55	125
Step 1	1,421.97	0.27	123
Step 2	897.03	0.17	123
Step 1	157.43	0.03	123
Step 2	3,848.58	0.73	122
Confluence with Babocomari River			
Step 1	2,407.23	0.46	121
Step 2	1,324.76	0.25	121
Step 1	15,699.92	2.97	121

San Pedro - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	23,549.62	4.46	157
Step 1	2,836.25	0.54	152
Step 2	32,098.45	6.08	151
Step 1	5.75	0.00	144
Step 2	16,773.93	3.18	144
Step 1	3,332.08	0.63	140
Step 2	1,226.56	0.23	139
Step 1	880.61	0.17	139
Step 2	4,041.50	0.77	138
Step 1	24.84	0.00	138
Step 2	1,558.35	0.30	138
Step 1	2,311.62	0.44	137
Step 2	1,728.46	0.33	137
Step 1	2,605.17	0.49	137
Step 3	5,024.99	0.95	136
Step 2	4,676.46	0.89	135
Step 1	378.88	0.07	135
Step 2	982.17	0.19	134
Step 1	2,848.08	0.54	134
Step 2	3,900.56	0.74	134
Step 1	199.33	0.04	133
Step 2	2,868.83	0.54	133
Step 1	22,939.10	4.34	132
Step 2	6,640.36	1.26	128
Step 1	123.41	0.02	126
Step 2	1,118.21	0.21	126
Step 3	1,782.27	0.34	126
Step 1	12,236.96	2.32	126
Step 2	3,269.51	0.62	124
Step 1	252.42	0.05	123
Step 3	1,725.39	0.33	123
Step 2	1,297.71	0.25	123
Step 1	2,546.65	0.48	122
Step 3	6,516.41	1.23	122
Step 2	3,918.08	0.74	120
Step 1	1,223.02	0.23	120
Step 2	1,965.38	0.37	119
Step 1	1,424.94	0.27	119
Step 2	526.88	0.10	119
Step 1	1,252.32	0.24	119
Step 2	588.98	0.11	119



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

San Pedro - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	1,061.82	0.20	118
Step 1	4,385.91	0.83	118
Step 2	2,267.93	0.43	117
Step 1	1,491.70	0.28	116
Step 2	5,226.46	0.99	116
Step 1	767.61	0.15	115
Step 2	1,302.05	0.25	115
Step 1	165.71	0.03	115
Step 2	2,635.66	0.50	114
Step 1	77.93	0.01	114
Step 2	676.16	0.13	114
Step 1	179.39	0.03	114
Step 3	5,509.55	1.04	113
Step 2	8,564.01	1.62	112
Step 1	2,555.14	0.48	111
Step 3	7,631.74	1.45	110
Step 2	4,271.17	0.81	108
Step 3	5,053.49	0.96	107
Step 2	1,940.45	0.37	106
Step 1	1,238.82	0.23	106
Step 2	593.17	0.11	106
Step 1	581.69	0.11	105
Step 2	3,781.07	0.72	105
Step 1	179.51	0.03	104
Step 2	451.77	0.09	104
Step 1	50.83	0.01	104
Step 3	9,574.90	1.81	104
Step 2	24,279.81	4.60	102
Step 3	11,637.88	2.20	97
Step 2	1,273.96	0.24	95
Step 1	1,711.89	0.32	95
Step 3	7,777.69	1.47	94
Step 2	17,398.79	3.30	92
Step 3	12,133.10	2.30	88
Step 2	5,344.10	1.01	86
Step 3	5,648.79	1.07	84
Step 2	5,899.57	1.12	83
Step 1	1,665.10	0.32	82
Step 2	1,162.30	0.22	82
Step 1	4,043.76	0.77	81
Step 2	3,930.57	0.74	81

San Pedro - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 1	2,314.72	0.44	119
Step 2	1,147.53	0.22	118
Step 1	2,001.86	0.38	118
Step 3	1,950.57	0.37	117
Step 2	850.31	0.16	117
Step 1	4,515.18	0.86	117
Step 2	960.65	0.18	115
Step 3	2,554.05	0.48	115
Step 2	4,882.86	0.92	114
Step 3	27,822.80	5.27	113
Step 2	1,946.41	0.37	107
Step 3	13,274.66	2.51	106
Step 2	4,590.25	0.87	103
Step 1	2,237.70	0.42	103
Step 2	34.81	0.01	103
Step 3	6,653.15	1.26	102
Step 2	5,724.74	1.08	101
Step 3	25,317.03	4.79	99
Step 2	26,489.53	5.02	94
Step 1	4,810.96	0.91	87
Step 2	1,764.10	0.33	86
Step 1	406.73	0.08	86
Step 2	732.15	0.14	86
Step 3	5,306.62	1.01	85
Step 2	573.59	0.11	84
Step 1	1,313.80	0.25	84
Step 2	1,451.89	0.27	84
Step 3	9,066.03	1.72	83
Step 1	630.83	0.12	82
Step 2	11,388.70	2.16	81
Step 3	5,712.75	1.08	79
Step 2	10,818.38	2.05	77
Step 3	7,362.71	1.39	75
Step 2	2,060.93	0.39	74
Step 3	7,732.08	1.46	73
Step 2	9,189.91	1.74	72
Step 1	1,081.39	0.20	70
Step 2	1,907.33	0.36	70
Step 3	4,342.30	0.82	70
Step 1	6,688.72	1.27	69
Step 3	8,367.08	1.58	67



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

San Pedro - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 1	1,687.04	0.32	80
Step 3	8,298.79	1.57	80
Step 1	241.05	0.05	78
Step 3	5,408.16	1.02	78
Step 2	1,587.27	0.30	77
Step 1	2,983.91	0.57	77
Step 2	3,477.29	0.66	76
Step 1	345.12	0.07	76
Step 3	7,467.57	1.41	75
Step 2	5,069.96	0.96	74
Step 1	1,296.95	0.25	73
Step 2	10,901.82	2.06	73
Step 1	184.43	0.03	71
Step 2	920.74	0.17	71
Step 1	137.99	0.03	71
Step 2	7,927.43	1.50	70
Step 1	344.20	0.07	69
Step 2	6,829.22	1.29	69
Step 1	767.36	0.15	67
Step 2	2,952.50	0.56	67
Step 1	1,698.85	0.32	66
Step 2	1,168.60	0.22	66
Step 1	580.78	0.11	66
Step 3	8,181.35	1.55	65
Step 2	1,696.94	0.32	64
Step 1	348.66	0.07	64
Step 2	885.99	0.17	64
Step 1	114.08	0.02	64
Step 2	1,912.71	0.36	64
Step 1	213.32	0.04	63
Step 2	7,862.39	1.49	63
Step 1	218.90	0.04	62
Step 2	2,279.15	0.43	62
Step 3	3,413.43	0.65	61
Step 1	2,052.16	0.39	61
Step 2	1,903.48	0.36	60
Step 1	233.10	0.04	60
Step 2	1,604.42	0.30	60
Step 1	11,748.63	2.23	59
Step 3	2,999.51	0.57	57
Step 1	433.30	0.08	57

San Pedro - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 1	9,299.11	1.76	65
Step 2	14,417.36	2.73	64
Step 1	3,290.05	0.62	61
Step 3	6,623.85	1.25	60
Step 1	15,201.44	2.88	59
Step 2	14,379.30	2.72	56
Step 1	3,203.89	0.61	54
Step 3	2,673.34	0.51	53
Step 1	7,266.02	1.38	53
Step 2	4,991.77	0.95	51
Step 3	2,890.13	0.55	51
Step 2	2,671.96	0.51	50
Step 3	6,056.24	1.15	49
Step 1	1,890.97	0.36	48
Step 2	4,721.01	0.89	48
Step 1	779.70	0.15	47
Step 2	1,808.33	0.34	47
Step 3	4,928.74	0.93	46
Step 1	394.56	0.07	45
Step 2	12,791.81	2.42	45
Step 1	1,146.10	0.22	42
Step 2	2,315.02	0.44	42
Step 3	5,155.80	0.98	41
Step 2	115,282.09	21.83	40
Step 1	553.00	0.10	14
Step 2	2,029.63	0.38	14
Confluence with Aravaipa Creek			
Step 2	4,282.84	0.81	13
Step 1	1,939.56	0.37	12
Step 2	37,572.61	7.12	11
Step 1	665.44	0.13	4
Step 2	621.36	0.12	4
Step 3	8,917.20	1.69	3
Step 1	136.04	0.03	2
Step 2	5,701.54	1.08	2
Step 1	138.09	0.03	0
TOTAL RIGHT	729,914.14	138.24	



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

San Pedro - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	8,478.94	1.61	56
Step 1	585.69	0.11	55
Step 2	11,043.87	2.09	55
Step 1	2,744.25	0.52	53
Step 3	932.16	0.18	53
Step 1	4,666.72	0.88	52
Step 2	5,147.22	0.97	51
Step 1	3,319.11	0.63	50
Step 2	7,785.40	1.47	50
Step 1	3,736.42	0.71	48
Step 2	14,993.57	2.84	47
Step 1	5,453.57	1.03	43
Step 2	1,817.01	0.34	42
Step 1	1,292.84	0.24	42
Step 2	21,755.23	4.12	41
Step 1	1,099.87	0.21	37
Step 2	41,354.23	7.83	36
Step 1	3,786.72	0.72	27
Step 2	8,091.04	1.53	26
Step 3	3,907.04	0.74	25
Step 1	231.98	0.04	24
Step 2	7,352.12	1.39	24
Step 1	1,062.35	0.20	23
Step 2	3,763.26	0.71	22
Step 1	2,333.41	0.44	21
Step 2	4,213.72	0.80	21
Step 1	2,264.44	0.43	20
Step 2	16,579.19	3.14	19
Step 1	72.51	0.01	15
Step 2	1,093.36	0.21	15
Step 1	558.15	0.11	15
Step 2	12,293.21	2.33	15
Step 1	212.57	0.04	12
Step 2	2,747.46	0.52	12
Step 1	709.14	0.13	11
Step 2	3,625.59	0.69	11
Step 3	12,207.22	2.31	10
Step 2	3,451.00	0.65	8
Step 1	4,091.73	0.77	7
Step 2	29,122.58	5.52	6
TOTAL LEFT	749,634.39	141.98	



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

Aravaipa - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	7,861.85	1.49	36
Step 1	495.49	0.09	35
Step 3	5,633.37	1.07	35
Step 2	851.86	0.16	34
Step 1	113.36	0.02	34
Step 2	4,228.60	0.80	34
Step 1	144.48	0.03	33
Step 2	6,049.04	1.15	33
Step 3	11,199.03	2.12	32
Step 1	3,594.33	0.68	29
Step 2	913.05	0.17	29
Step 1	3,215.27	0.61	28
Step 2	1,325.51	0.25	28
Step 1	8,677.00	1.64	28
Step 3	732.77	0.14	26
Step 1	95,319.42	18.05	26
Step 2	1,486.90	0.28	7
Step 1	11,628.50	2.20	7
Step 2	526.81	0.10	5
Step 1	51.37	0.01	5
Step 2	710.17	0.13	5
Step 3	3,044.11	0.58	4
Step 1	6,233.34	1.18	4
Step 2	7,472.80	1.42	3
Step 1	4,125.28	0.78	1
TOTAL LEFT	185,633.71	35.16	

Aravaipa - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	2,940.47	0.56	36
Step 3	5,088.32	0.96	36
Step 1	721.31	0.14	35
Step 2	2,310.96	0.44	34
Step 1	1,202.51	0.23	34
Step 2	13,076.74	2.48	34
Step 3	12,971.87	2.46	31
Step 2	47.84	0.01	29
Step 1	12,502.26	2.37	29
Step 3	1,203.67	0.23	27
Step 1	2,658.79	0.50	26
Step 2	766.21	0.15	26
Step 1	290.34	0.05	26
Step 2	765.27	0.14	26
Step 1	524.91	0.10	26
Step 2	1,502.57	0.28	25
Step 1	322.47	0.06	25
Step 2	892.62	0.17	25
Step 1	4,041.42	0.77	25
Step 2	1,033.33	0.20	24
Step 1	19,576.93	3.71	24
Step 3	1,024.27	0.19	20
Step 1	76,897.15	14.56	20
Step 2	475.92	0.09	5
Step 1	4,221.19	0.80	5
Step 3	1,729.95	0.33	4
Step 2	210.04	0.04	4
Step 1	983.95	0.19	4
Step 2	2,755.36	0.52	4
Step 1	142.05	0.03	3
Step 2	700.77	0.13	3
Step 1	3,230.06	0.61	3
Step 2	581.77	0.11	3
Step 3	3,224.17	0.61	2



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

Aravaipa - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 2	1,559.71	0.30	2
Step 1	832.31	0.16	2
Step 2	293.27	0.06	2
Step 1	7.13	0.00	2
Step 2	2,521.23	0.48	1
Step 3	1,797.48	0.34	1
Step 2	999.62	0.19	1
Step 1	2,443.28	0.46	0
TOTAL RIGHT	191,071.48	36.19	



Table 3-1. Lengths of FHA Determined from Steps 1, 2, and 3

Babocomari - Left			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 1	2,598.80	0.49	21
Step 2	2,476.34	0.47	21
Step 1	387.56	0.07	20
Step 2	953.84	0.18	20
Step 1	13,655.43	2.59	20
Step 3	1,339.95	0.25	18
Step 1	26,556.41	5.03	17
Step 2	7,647.42	1.45	12
Step 1	6,316.66	1.20	11
Step 2	18,486.97	3.50	9
Step 1	27,435.20	5.20	5
Step 2	373.18	0.07	0
Step 1	65.23	0.01	0
Step 2	1,632.30	0.31	0
TOTAL LEFT	109,925.30	20.82	

Babocomari - Right			
FHA Step	Length (ft)	Length (mi)	Approx. River Mile
Step 1	5,212.70	0.99	21
Step 2	1,698.60	0.32	20
Step 3	1,806.91	0.34	20
Step 1	7,042.15	1.33	20
Step 3	1,458.26	0.28	18
Step 1	2,034.64	0.39	18
Step 3	1,512.46	0.29	18
Step 1	12,441.00	2.36	17
Step 3	4,214.74	0.80	15
Step 2	20,385.88	3.86	14
Step 1	1,186.70	0.22	10
Step 2	7,669.81	1.45	10
Step 1	15,128.36	2.87	8
Step 3	2,943.49	0.56	5
Step 2	1,840.19	0.35	5
Step 1	15,945.69	3.02	4
Step 3	2,109.43	0.40	2
Step 1	7,510.83	1.42	1
TOTAL RIGHT	112,141.85	21.24	

Differences in calculated totals may be observed due to rounding.



TABLE 3-2:
SUMMARY OF LENGTHS
OF FHA DETERMINED
FROM STEPS 1, 2, AND 3

Table 3-2. Summary of Lengths of FHA Determined from Steps 1, 2, and 3

Watercourse	Step 1 [mi]		Step 2 [mi]		Step 3 [mi]		Totals [mi]
	Left	Right	Left	Right	Left	Right	
San Pedro River	28.00	24.49	85.89	80.08	28.08	33.67	280.22
Aravaipa Creek	25.30	24.73	5.95	6.33	3.90	5.12	71.35
Babocomari River	14.59	12.60	5.98	5.98	0.25	2.66	42.06
Totals [mi]	129.72		190.22		73.69		393.62
	33.0%		48.3%		18.7%		

Differences in calculated totals may be observed due to rounding.

