



ASPEN



INTEGRITY



LEADERSHIP TEAM



Otis Disbennett



Curtis Obie



David Ladage



Phillip Fronczek

CORE SERVICES

- DGPS Survey (AGM Documentation)
- PIG Tracking
- Debris Assessment
- Loading/Lifting
- Tool Decontamination
- Dig Staking
- Depth of Cover
- Other Support Services



DGPS SURVEY (AGM DOCUMENTATION)

- Survey solutions that meet distinct pipeline requirements.
- Trimble® data collectors use GPS (U.S.) systems for improved accuracy (subdecimeter to centimeter).
- Aspen Integrity staff is manufacturer certified on Trimble® hardware and software.
- Post survey reports include:
 - AGM summary information sheets
 - Photos and AGM details
 - KMZ with AGM details



AGM SURVEY REPORT



LIST OF GPS COORDINATES AT AGM LOCATIONS (REFERENCE POINTS)

Please complete this form as it enters. Indicate the DGPS datum used in the appropriate space provided. The format in which the data is provided shall be the format used in the reported results unless otherwise requested and indicated on this form. Place the gathered data in the proper columns (either latitude or UTM; but not both) if UTM is used, the Grid Zone Number is required. Again, the projection in which the data is provided shall be used for the reported results, unless otherwise indicated on this form. NOTE: A DEPTH OF COVER IS REQUIRED FOR THE FINAL REPORT. A DEPTH OF COVER MEASUREMENT AT EACH REFERENCE POINT IS REQUIRED. The resulting reported depth of cover value is a linear interpolation between the two reference points.

Client Information		GPS Equipment used		Survey performed by	
OPERATOR:	DCP Midstream	Type:	Receiver	Name:	Curtis Obie
PROJECT NUMBER:	8" Toro to Hardin	Manufacturer:	Tribble	Company:	Aspen Integrity
PIPELINE DIAMETER, NAME:	Blacklake	Model:	R2 + RTX Centerpoint	Date:	4/27/2023
DGPS DATUM FORMAT:	WGS84				

Reference Point Information			LATITUDE / LONGITUDE (WGS 84)							
Station Number	AGM Name	Location Description	Pipeline Distance (ft.)	Latitude	Longitude	Elevation HT (MSL) (ft.)	DOC (ft.) Measured to Top of Pipe	HORIZONTAL PRECISION (in.)	VERTICAL PRECISION (in.)	Comment
0-19	Launcher Door	DCP Toro Launcher Door	-19	31 19335788	-93 53519193	126 890	0	0.64	2.05	
0-20	Nominal Weld at Launcher	DCP Toro Launch Valve	5	31 19332029	-93 53519118	126 022	0	0.7	1.89	
0-40	Receiver Riser	DCP Toro Launch Riser	11	31 19328162	-93 53519185	126 407	0	0.69	2.39	
0-111	Receiver Riser	DCP Toro Launch Riser	11	31 19328162	-93 53519185	122 210	0	0.7	2.24	
22-28	003 470AM	1" SW of PLM on ROW	2224	31 18892028	-93 53842196	103 576	4.5	0.82	2.07	
41+00	001 890AM	At PLM on ROW	4700	31 18189785	-93 53603512	109 348	5	1.25	2.7	
84+40	001 450AM	On SW side of CR 2144 at PLM	8440	31 17472240	-93 54076991	107 231	4.1	0.65	1.92	
125+19	002 220AM	ROW	12519	31 16991630	-93 5616412	97 620	3.9	1.12	2.48	
148+03	002 070AM	At PLM on ROW	14803	31 16189776	-93 56105600	104 256	4.25	0.72	2.04	Found
217+09	003 960MV	Block Valve #10	21709	31 14710928	-93 57428827	122 900	6.5	0.63	1.59	
281+27	005 180AM	1" East of PLM on ROW	28127	31 13356688	-93 58571801	238 602	5.4	0.84	2.04	
330+57	006 290AM	No Reference - Found Disc on ROW	33057	31 11996883	-93 59651304	228 851	5.25	3.17	7.9	Found
353+81	006 560AM	No Reference	35381	31 11648444	-93 60599666	226 000	4.75	3.98	9.36	
384+65	007 330AM	22" South of C/L trail At PLM	38465	31 10716164	-93 60603938	291 053	6.1	0.67	2	
447+08	008 300AM	51" NE of trail C/L at Test Lead	44708	31 09519179	-93 61698428	225 200	6.1	0.59	1.64	
500+24	009 110AM	At PLM on ROW	50024	31 08396453	-93 62724371	330 726	4.9	0.6	2.12	
545+03	010 180AM	27" NW of det trail at PLM. AGM is 2" East of PLM	54503	31 07485824	-93 63064700	341 619	5	0.59	1.78	
597+17	011 180AM	No Reference	59717	31 06343325	-93 64649031	300 179	4	3.27	5.98	Found
664+89	012 450MV	Block Valve #11	66489	31 04814178	-93 65647589	256 284	3.45	0.75	2.57	
722+79	013 640AM	45' SW of Trail C/L at Test Post	72279	31 03451223	-93 67064446	244 772	4.4	0.75	2.15	
781+45	014 690AM	Perpendicular to PLM on ROW	78145	31 02255412	-93 68039562	209 118	4.966	1.09	2.8	
839+29	015 740MV	Wingsgate Station MLV #1	83929	31 00610847	-93 69070275	252 385	4.2	0.6	1.52	
839+33	015 750CV	Wingsgate Station Check Valve	83933	31 00969669	-93 69080030	248 887	0.5	0.73	2.66	
839+38	015 760MV	Wingsgate Station MLV #2	83938	31 00969669	-93 69080633	251 368	3.4	1.05	3.31	
903+36	016 910AM	At PLM on ROW	90336	30 99564037	-93 70225561	275 320	4.6	1.41	4.05	
965+26	018 150MV	Block Valve #12	96526	30 98118184	-93 71431054	218 318	4.2	1.12	3.47	
1018+80	019 250AM	At PLM on ROW	101880	30 96931407	-93 72430080	228 876	3.9	0.65	1.05	
1071+29	020 250AM	No Reference	107129	30 96754222	-93 74627878	249 262	4.25	0.6	2.01	
1121+14	021 210AM	No Reference	112114	30 94841656	-93 74370123	279 187	4	0.65	1.87	
1177+63	022 270AM	At T.P. on ROW	117763	30 93462386	-93 75424686	297 354	5.25	0.6	1.07	Could find disc
1227+16	023 200AM	At PLM on ROW	122716	30 92363567	-93 76348339	276 921	4.8	0.72	2.54	Found
1289+36	024 330AM	At Broken PLM on ROW	128936	30 91620341	-93 77508661	269 370	5.333	0.98	3.23	
1346+62	025 480AM	At PLM on ROW	134662	30 90693469	-93 78982003	232 319	4.75	0.82	2.63	
1402+00	026 530AM	At PLM on ROW	140200	30 88483269	-93 79722981	297 000	5.1	UNK	UNK	2013 Survey Coords. Unable to find disc
1457+35	027 580AM	No Reference	145735	30 87261044	-93 80174179	176 591	5.25	4.68	7.18	
1510+43	028 640AM	39' NE of New Creek on ROW	151043	30 85697163	-93 81884063	192 263	5.1	1.15	3.79	
1556+77	029 450AM	33' NE of CR 3004 C/L at PLM	155677	30 85048904	-93 82611891	323 107	6.1	0.6	1.97	
1605+09	030 370AM	At PLM on ROW	160509	30 83901286	-93 83501351	294 889	5.1	1.14	4.22	
1605+05	031 420AM	At PLM on ROW	160505	30 82723769	-93 84141795	214 923	4.8	0.97	2.84	
1724+02	032 520AM	At PLM on ROW	172402	30 81288829	-93 85633439	251 639	4.8	1	3.27	
1763+09	033 750AM	At PLM on ROW	176309	30 79654907	-93 86959891	232 881	5.5	4.9	14.28	Found
1841+11	034 960MV	Block Valve #13	184111	30 78591176	-93 87864013	221 814	4.2	1.12	2.88	
1907+41	036 110AM	At T.P. on Overgrown ROW	190741	30 77134448	-93 88925830	146 332	4.25	1.93	4.92	
1907+41	036 640AM	27" NE of CR 851 C/L	190741	30 76466583	-93 88432233	186 099	6.4	0.58	1.45	
1990+50	037 690AM	In Fence-line on ROW near PLM	199050	30 75279745	-93 84855586	161 066	4.168	1.93	3.84	Not Found
2034+84	038 530AM	ROW	203484	30 74278070	-93 91271201	144 501	5.6	1.05	3.49	
2086+35	039 510AM	In Fence-line on ROW	208635	30 73122283	-93 92331780	150 087	4.9	1.02	3.18	

ASPEN INTEGRITY, LLC. 713.829.9589 aspenintegrity.com



April 29, 2023
Blacklake
Toro Sta. to Hardin Sta.

003.960MV							
Station #	217+09	Mile Post	4.11	Latitude	31.14710928	Longitude	-93.57428827
AGM Type	Mainline Valve	Access Type	Truck Always	Cell Coverage	Average	Depth of Cover (ft.)	6.50
AGM Description	Block Valve #10						
Reference Object	GPS Calculated	Reference Station	21709	Distance to AGM	0	Direction From Ref	At



Facing Direction: East/Northeast

AGM SURVEY KMZ

The image shows a Google Earth Pro interface displaying an AGM (Autonomous Ground Mobile) survey track. The track consists of a series of yellow markers, each labeled with a station ID and time, such as 032 420AM, 033 750AM, 036 640AM, 037 690AM, 040 190AM, 041 070AM, 042 410AM, 043 460AM, 044 040AM, 045 870AM, 046 220AM, 047 370AM, 048 100AM, 048 970AM, 049 600AM, 050 640AM, 052 330AM, 054 510AM, 055 0130AM, 055 140AM, 058 030AM, 057 080AM, 058 810AM, 059 810AM, 061 250AM, 060 480AM, 063 060AM, and 062 390AM. A popup window for station 032 420AM is open, displaying the following attributes:

Attributes	
AGMName	032.420AM
AGMType	Autonomous Station
AGMDescription	4 PLM in ROW
PrimaryReference	GPS Calculated
PrimaryReferenceStation	172402
DistanceFromPrimaryReferenceStation	172402
AGMStationNumber	172402
HeightAboveSeaLevel	44.1
AntennaHeightAboveAnt	5.562
AntennaType	Yagi
AntennaMounting	Truss (Fixed) Dry
AccessType	Power
PhotoDirection	Southwest
AGMPhoto	
Comment	
EstimatedAccuracy	1
EstimatedAccuracy	3.37
Creation	2023-04-08T09:49:34.078109
Updated	
CorrectionStatus	RTX Center Connected
CorrectionSource	RTX
CorrectionMethod	2023
ROOP	1.5
WGS84	0.000000000000001
UniquID	146
Footage	172402

The left sidebar shows a 'Places' list with various AGM stations and launch sites, and a 'Layers' list with options like 'Primary Database', 'Announcements', 'Borders and Labels', 'Photos', 'Roads', 'Buildings', 'Weather', 'Gallery', 'Home', and 'Terrain'. The bottom right corner of the Google Earth window displays the logo and the text 'Satellite Date: 11/30/2023 10:46:53.07 N 107:07:35 W 2023 10:46:53.07 N 107:07:35 W'.

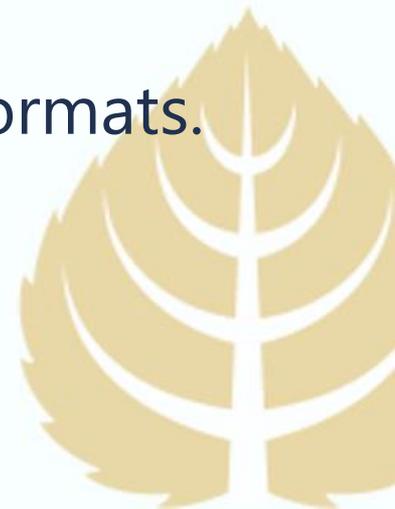
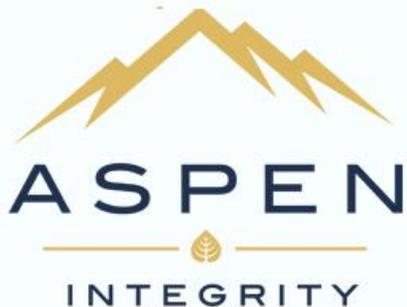
PIG TRACKING

- Aspen Integrity provides launcher to receiver PIG tracking services.
- All crews are OQ qualified and trained to perform covered tasks required for pipeline integrity services
- All technicians are equipped with a 22Hz receiver, acoustic (Geophone), and industry standard navigation and mapping software
- Access to pipeline easements is provided by 4x4 trucks, ATVs, boats, etc.



ASPEN TRACKER™ SERVICE OVERVIEW

- Aspen Tracker™ provides a customizable data management solution.
- Comprehensive service that provides:
 - Field data collection
 - Geospatial data management
 - Web-based data viewer
 - Summarizes complex data into useable formats.



ARCGIS ONLINE INTEGRATION

20" Wink to Red Bluff_MFL

AGMs Recorded

61
Out of 61

Last update: 12 seconds ago

Launch
2023-03-28 12:38:00

Trap ETA
2023-03-29 7:31:00

Max Section Speed



Maximum Speed Minimum Speed

AGM List

- AGM 000** (Wink Station Launch Valve)
Time: 2023-03-28 12:38:00
Calculated Speed: 3.25 mph
ETA:
- AGM 010** (18' NE C/L Dirt Rd at PLM)
Time: 2023-03-28 13:00:58
Calculated Speed: 2.71 mph
ETA: 2023-03-28 12:57:11
- AGM 020** (17' W/SW of C/L of Gravel Rd at PLM)
Time: 2023-03-28 13:21:17
Calculated Speed: 2.84 mph
ETA: 2023-03-28 13:22:14
- AGM 030** (At PLM in Fenceline)
Time: 2023-03-28 13:46:05
Calculated Speed: 2.87 mph
ETA: 2023-03-28 13:46:20
- AGM 040** (115' W/SW of C/L of Median on HWY 18 at PLM in Fenceline)
Time: 2023-03-28 14:07:45
Calculated Speed: 2.86 mph
ETA: 2023-03-28 14:07:43
- AGM 050** (MLV 1)
Time: 2023-03-28 14:15:45
Calculated Speed: 2.90 mph
ETA: 2023-03-28 14:15:51
- AGM 060** (26' SE of C/L of Dirt RD at PLM)
Time: 2023-03-28 14:50:30
Calculated Speed: 2.94 mph
ETA: 2023-03-28 14:50:56
- AGM 070** (At PLM in Fenceline)



Calculated Pig Speed at AGM Locations



DEBRIS ASSESSMENT

Aspen Integrity employs many field technicians with extensive experience handling and operating ILI debris assessment tools. Each technician is fully capable of setting up and launching the tool as well as downloading/uploading the data.



TOOL LIFTING AND DECONTAMINATION

- Lifting up to 16k
- Aspen Integrity provides tool decontamination
- All decontamination units are self contained (power, water, lighting)
- Our portable containment units are sized for various tool specifications
- All Aspen Integrity personnel follow safety protocols
 - All project staff are outfitted with fire and chemical resistant PPE
 - Aspen Integrity is compliant with all DOT regulations
 - In-house Radiation Safety Officer and trained NORM surveyor personnel



ANOMALY DIG STAKING

- Post Inspection Dig Program Support
 - Locate Repair Sites (DGPS, survey, One-Call, etc.)
 - Survey Rehab Excavation and Pipeline Repair
 - Document location access to dig site
- Client Coordination and Support

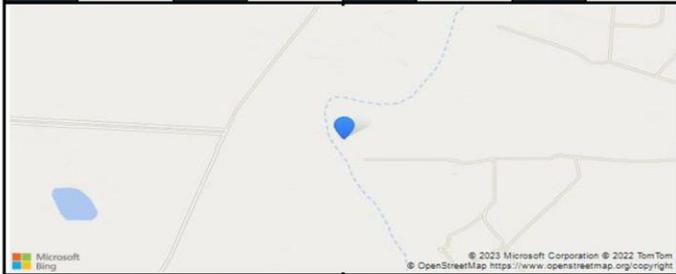


DIG SITE SURVEY



February 27, 2023
12" Red Bluff Dig Staking
Angeles to Wink

RB.022.669.T22.D23.N.RI							
Dig Odometer	119693.12	Milepost	22.67	Latitude	31.78781557	Longitude	-103.55860236
Survey Method	GPS Staked	Access Type	Truck Always	Distance to U/S AGM	5726.40	Depth of Cover (ft.)	6.67
Dig Site Info	Dig is located at AGM 220. Site is marked with Pink painted Lathe and ribbon.			One Call Directions	Reference Google Earth Map Provided		
U/S AGM	AGM 210	D/S AGM	AGM 220	Feet to U/S GW	15.08	Feet to D/S GW	37.4



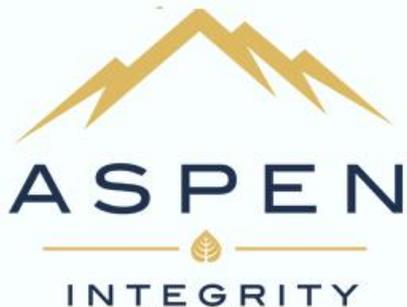
February 27, 2023
12" Red Bluff Dig Staking
Angeles to Wink



COST-EFFECTIVE SERVICE

By combining many of the essential ILL tool tracking services into a single crew, Aspen Integrity helps minimize expenses associated with mobilization.

Our clients frequently report significant cost savings on ILL projects due to the cost efficiency of our suite of services.



ASPEN INTEGRITY SAFETY EXCELLENCE



- Project Focused Hazard Management Process:
 - OQs and client specific safety requirements incorporated into broader Aspen Integrity Safety Culture
- DOT Compliant Drug and Alcohol Program



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