



SUMMIT
OILFIELD SERVICES, INC

Company: Civitas
Lease/Well: MALONEY 1-16
County/ State: Adams, CO
API#: 05-001-08674

Survey Type: Memory Survey
North Reference: True North
Rig Name: N/A
RKB: N/A

Date: 12-22-21
Job Number: 11203-500108674
Survey Engineer: N. Brehmer
Instrument Number: GP1-1021

Summit Oilfield Services

MALONEY 1-16 Gyro Survey

Minimum Curvature Method
Vertical Section Plane: 0.00
Vertical Section Reference: Wellhead
Rectangular Coordinates Reference: Wellhead

Measured Depth	Indin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
0.00 ft	0.00	0.00	0.00 ft	0.00 ft	0.00 ft	0.00 ft	0.00 ft	0.00/100 ft	0.00 ft	0.00
100.00 ft	0.30	199.84	100.00 ft	100.00 ft	-0.25 ft	-0.09 ft	-0.25 ft	0.30/100 ft	0.26 ft	199.84
200.00 ft	0.18	206.13	100.00 ft	200.00 ft	-0.63 ft	-0.25 ft	-0.63 ft	0.12/100 ft	0.68 ft	201.28
300.00 ft	0.51	328.47	100.00 ft	300.00 ft	-0.39 ft	-0.55 ft	-0.39 ft	0.63/100 ft	0.68 ft	234.45
400.00 ft	0.45	306.20	100.00 ft	399.99 ft	0.22 ft	-1.10 ft	0.22 ft	0.20/100 ft	1.12 ft	281.26
500.00 ft	0.49	326.53	100.00 ft	499.99 ft	0.80 ft	-1.65 ft	0.80 ft	0.17/100 ft	1.83 ft	296.00
600.00 ft	0.34	268.34	100.00 ft	599.99 ft	1.15 ft	-2.18 ft	1.15 ft	0.42/100 ft	2.46 ft	297.84
700.00 ft	0.57	336.91	100.00 ft	699.99 ft	1.60 ft	-2.67 ft	1.60 ft	0.55/100 ft	3.11 ft	300.98
800.00 ft	0.64	310.87	100.00 ft	799.98 ft	2.43 ft	-3.29 ft	2.43 ft	0.28/100 ft	4.09 ft	306.46
900.00 ft	0.57	330.89	100.00 ft	899.97 ft	3.23 ft	-3.96 ft	3.23 ft	0.22/100 ft	5.11 ft	309.24
1000.00 ft	0.39	333.64	100.00 ft	999.97 ft	3.97 ft	-4.35 ft	3.97 ft	0.17/100 ft	5.89 ft	312.40
1100.00 ft	0.74	299.25	100.00 ft	1099.97 ft	4.59 ft	-5.06 ft	4.59 ft	0.47/100 ft	6.84 ft	312.22
1200.00 ft	0.41	270.27	100.00 ft	1199.96 ft	4.91 ft	-5.99 ft	4.91 ft	0.43/100 ft	7.74 ft	309.36

Icefield Tools Inc. makes no warranty of any kind with respect to the subject matter included herein or the completeness or accuracy of this document. Icefield Tools Inc. are not responsible for any actions (or lack thereof) taken as a result of relying on or in any way using information contained in this document and in no event shall be liable for any damages resulting from reliance on or use of this information.



SUMMIT
OILFIELD SERVICES, INC

Company: Civitas
Lease/Well: MALONEY 1-16
County/ State: Adams, CO
API#: 05-001-08674

Survey Type: Memory Survey
North Reference: True North
Rig Name: N/A
RKB: N/A

Date: 12-22-21
Job Number: 11203-500108674
Survey Engineer: N. Brehmer
Instrument Number: GP1-1021

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
1300.00 ft	0.41	255.84	100.00 ft	1299.96 ft	4.82 ft	-6.69 ft	4.82 ft	0.10/100 ft	8.25 ft	305.79
1400.00 ft	0.71	312.42	100.00 ft	1399.95 ft	5.16 ft	-7.49 ft	5.16 ft	0.60/100 ft	9.10 ft	304.54
1500.00 ft	0.80	300.19	100.00 ft	1499.95 ft	5.93 ft	-8.56 ft	5.93 ft	0.18/100 ft	10.41 ft	304.71
1600.00 ft	0.69	304.01	100.00 ft	1599.94 ft	6.62 ft	-9.66 ft	6.62 ft	0.12/100 ft	11.71 ft	304.41
1700.00 ft	0.53	296.00	100.00 ft	1699.93 ft	7.16 ft	-10.58 ft	7.16 ft	0.18/100 ft	12.77 ft	304.08
1800.00 ft	0.53	264.69	100.00 ft	1799.93 ft	7.32 ft	-11.46 ft	7.32 ft	0.29/100 ft	13.60 ft	302.57
1900.00 ft	0.87	262.05	100.00 ft	1899.92 ft	7.17 ft	-12.67 ft	7.17 ft	0.34/100 ft	14.56 ft	299.50
2000.00 ft	0.88	283.98	100.00 ft	1999.91 ft	7.25 ft	-14.17 ft	7.25 ft	0.33/100 ft	15.92 ft	297.10
2100.00 ft	0.52	265.12	100.00 ft	2099.90 ft	7.40 ft	-15.36 ft	7.40 ft	0.42/100 ft	17.05 ft	295.71
2200.00 ft	0.98	264.75	100.00 ft	2199.89 ft	7.28 ft	-16.67 ft	7.28 ft	0.46/100 ft	18.19 ft	293.59
2300.00 ft	0.81	244.33	100.00 ft	2299.88 ft	6.90 ft	-18.16 ft	6.90 ft	0.36/100 ft	19.42 ft	290.79
2400.00 ft	1.00	268.74	100.00 ft	2399.87 ft	6.57 ft	-19.67 ft	6.57 ft	0.42/100 ft	20.73 ft	288.47
2500.00 ft	1.58	264.70	100.00 ft	2499.84 ft	6.42 ft	-21.91 ft	6.42 ft	0.59/100 ft	22.83 ft	286.34
2600.00 ft	2.00	265.65	100.00 ft	2599.79 ft	6.16 ft	-25.02 ft	6.16 ft	0.42/100 ft	25.76 ft	283.84
2700.00 ft	2.11	272.43	100.00 ft	2699.73 ft	6.11 ft	-28.59 ft	6.11 ft	0.27/100 ft	29.24 ft	282.06
2800.00 ft	2.22	263.77	100.00 ft	2799.66 ft	5.98 ft	-32.35 ft	5.98 ft	0.35/100 ft	32.90 ft	280.47
2900.00 ft	2.47	279.28	100.00 ft	2899.58 ft	6.11 ft	-36.40 ft	6.11 ft	0.68/100 ft	36.91 ft	279.53
3000.00 ft	2.73	274.84	100.00 ft	2999.47 ft	6.66 ft	-40.91 ft	6.66 ft	0.33/100 ft	41.44 ft	279.25
3100.00 ft	2.47	279.73	100.00 ft	3099.37 ft	7.23 ft	-45.41 ft	7.23 ft	0.34/100 ft	45.98 ft	279.04
3200.00 ft	2.35	288.27	100.00 ft	3199.28 ft	8.24 ft	-49.48 ft	8.24 ft	0.38/100 ft	50.16 ft	279.45
3300.00 ft	2.45	291.31	100.00 ft	3299.19 ft	9.66 ft	-53.42 ft	9.66 ft	0.16/100 ft	54.29 ft	280.25

Icefield Tools Inc. makes no warranty of any kind with respect to the subject matter included herein or the completeness or accuracy of this document. Icefield Tools Inc. are not responsible for any actions (or lack thereof) taken as a result of relying on or in any way using information contained in this document and in no event shall be liable for any damages resulting from reliance on or use of this information.



SUMMIT
OILFIELD SERVICES, INC

Company: Civitas
Lease/Well: MALONEY 1-16
County/ State: Adams, CO
API#: 05-001-08674

Survey Type: Memory Survey
North Reference: True North
Rig Name: N/A
RKB: N/A

Date: 12-22-21
Job Number: 11203-500108674
Survey Engineer: N. Brehmer
Instrument Number: GP1-1021

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
3400.00 ft	2.57	292.97	100.00 ft	3399.10 ft	11.31 ft	-57.48 ft	11.31 ft	0.14/100 ft	58.59 ft	281.13
3500.00 ft	2.49	293.55	100.00 ft	3499.00 ft	13.05 ft	-61.54 ft	13.05 ft	0.09/100 ft	62.91 ft	281.98
3600.00 ft	2.41	282.62	100.00 ft	3598.91 ft	14.38 ft	-65.58 ft	14.38 ft	0.47/100 ft	67.14 ft	282.37
3700.00 ft	2.46	283.67	100.00 ft	3698.82 ft	15.35 ft	-69.71 ft	15.35 ft	0.07/100 ft	71.38 ft	282.41
3800.00 ft	2.44	282.48	100.00 ft	3798.73 ft	16.31 ft	-73.88 ft	16.31 ft	0.05/100 ft	75.66 ft	282.45
3900.00 ft	2.25	283.17	100.00 ft	3898.64 ft	17.22 ft	-77.87 ft	17.22 ft	0.19/100 ft	79.75 ft	282.47
4000.00 ft	2.10	291.74	100.00 ft	3998.57 ft	18.35 ft	-81.49 ft	18.35 ft	0.36/100 ft	83.53 ft	282.69
4100.00 ft	1.64	298.78	100.00 ft	4098.52 ft	19.72 ft	-84.45 ft	19.72 ft	0.51/100 ft	86.72 ft	283.14
4200.00 ft	1.49	297.14	100.00 ft	4198.48 ft	21.00 ft	-86.86 ft	21.00 ft	0.16/100 ft	89.36 ft	283.59
4300.00 ft	1.78	305.58	100.00 ft	4298.44 ft	22.49 ft	-89.28 ft	22.49 ft	0.37/100 ft	92.07 ft	284.14
4400.00 ft	1.20	307.68	100.00 ft	4398.41 ft	24.04 ft	-91.36 ft	24.04 ft	0.58/100 ft	94.47 ft	284.74
4500.00 ft	1.31	293.86	100.00 ft	4498.38 ft	25.14 ft	-93.23 ft	25.14 ft	0.32/100 ft	96.56 ft	285.09
4600.00 ft	0.84	309.10	100.00 ft	4598.37 ft	26.06 ft	-94.85 ft	26.06 ft	0.54/100 ft	98.36 ft	285.36
4700.00 ft	0.86	282.28	100.00 ft	4698.35 ft	26.68 ft	-96.15 ft	26.68 ft	0.40/100 ft	99.79 ft	285.51
4800.00 ft	0.98	294.31	100.00 ft	4798.34 ft	27.19 ft	-97.66 ft	27.19 ft	0.22/100 ft	101.38 ft	285.56
4900.00 ft	0.60	270.81	100.00 ft	4898.33 ft	27.55 ft	-98.96 ft	27.55 ft	0.49/100 ft	102.73 ft	285.56
5000.00 ft	0.75	296.63	100.00 ft	4998.33 ft	27.85 ft	-100.06 ft	27.85 ft	0.33/100 ft	103.87 ft	285.55
5100.00 ft	0.79	267.28	100.00 ft	5098.32 ft	28.11 ft	-101.34 ft	28.11 ft	0.39/100 ft	105.17 ft	285.50
5200.00 ft	0.89	270.00	100.00 ft	5198.31 ft	28.08 ft	-102.81 ft	28.08 ft	0.10/100 ft	106.57 ft	285.28
5300.00 ft	0.72	289.87	100.00 ft	5298.30 ft	28.29 ft	-104.17 ft	28.29 ft	0.32/100 ft	107.95 ft	285.19
5400.00 ft	0.72	284.37	100.00 ft	5398.29 ft	28.66 ft	-105.38 ft	28.66 ft	0.07/100 ft	109.21 ft	285.22

Icefield Tools Inc. makes no warranty of any kind with respect to the subject matter included herein or the completeness or accuracy of this document. Icefield Tools Inc. are not responsible for any actions (or lack thereof) taken as a result of relying on or in any way using information contained in this document and in no event shall be liable for any damages resulting from reliance on or use of this information.



SUMMIT
OILFIELD SERVICES, INC

Company: Civitas
Lease/Well: MALONEY 1-16
County/ State: Adams, CO
API#: 05-001-08674

Survey Type: Memory Survey
North Reference: True North
Rig Name: N/A
RKB: N/A

Date: 12-22-21
Job Number: 11203-500108674
Survey Engineer: N. Brehmer
Instrument Number: GP1-1021

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
5500.00 ft	0.72	289.68	100.00 ft	5498.28 ft	29.03 ft	-106.58 ft	29.03 ft	0.07/100 ft	110.46 ft	285.24
5600.00 ft	0.60	300.22	100.00 ft	5598.27 ft	29.51 ft	-107.62 ft	29.51 ft	0.17/100 ft	111.59 ft	285.33
5700.00 ft	0.59	313.90	100.00 ft	5698.27 ft	30.13 ft	-108.45 ft	30.13 ft	0.14/100 ft	112.55 ft	285.53
5800.00 ft	0.24	309.61	100.00 ft	5798.27 ft	30.62 ft	-108.98 ft	30.62 ft	0.35/100 ft	113.20 ft	285.69
5900.00 ft	0.50	264.71	100.00 ft	5898.26 ft	30.72 ft	-109.58 ft	30.72 ft	0.37/100 ft	113.81 ft	285.66
6000.00 ft	0.40	299.45	100.00 ft	5998.26 ft	30.85 ft	-110.32 ft	30.85 ft	0.29/100 ft	114.55 ft	285.62
6100.00 ft	0.26	232.78	100.00 ft	6098.26 ft	30.88 ft	-110.80 ft	30.88 ft	0.38/100 ft	115.03 ft	285.57
6200.00 ft	0.42	265.43	100.00 ft	6198.26 ft	30.72 ft	-111.35 ft	30.72 ft	0.24/100 ft	115.51 ft	285.42
6300.00 ft	0.41	263.97	100.00 ft	6298.26 ft	30.65 ft	-112.07 ft	30.65 ft	0.01/100 ft	116.18 ft	285.30
6400.00 ft	0.40	252.69	100.00 ft	6398.25 ft	30.51 ft	-112.76 ft	30.51 ft	0.08/100 ft	116.81 ft	285.14
6500.00 ft	0.48	232.23	100.00 ft	6498.25 ft	30.15 ft	-113.42 ft	30.15 ft	0.18/100 ft	117.36 ft	284.88
6600.00 ft	0.34	217.16	100.00 ft	6598.25 ft	29.65 ft	-113.94 ft	29.65 ft	0.18/100 ft	117.73 ft	284.59
6700.00 ft	0.05	222.34	100.00 ft	6698.25 ft	29.38 ft	-114.15 ft	29.38 ft	0.29/100 ft	117.87 ft	284.43
6800.00 ft	0.20	57.93	100.00 ft	6798.25 ft	29.43 ft	-114.04 ft	29.43 ft	0.25/100 ft	117.77 ft	284.47
6900.00 ft	0.33	57.24	100.00 ft	6898.25 ft	29.68 ft	-113.65 ft	29.68 ft	0.14/100 ft	117.46 ft	284.64
7000.00 ft	0.46	93.79	100.00 ft	6998.24 ft	29.81 ft	-113.00 ft	29.81 ft	0.28/100 ft	116.86 ft	284.78
7100.00 ft	0.63	108.04	100.00 ft	7098.24 ft	29.62 ft	-112.08 ft	29.62 ft	0.21/100 ft	115.92 ft	284.80
7200.00 ft	0.62	124.97	100.00 ft	7198.23 ft	29.14 ft	-111.12 ft	29.14 ft	0.18/100 ft	114.87 ft	284.69
7300.00 ft	0.70	120.84	100.00 ft	7298.23 ft	28.52 ft	-110.15 ft	28.52 ft	0.09/100 ft	113.78 ft	284.51
7400.00 ft	1.10	110.29	100.00 ft	7398.21 ft	27.87 ft	-108.73 ft	27.87 ft	0.43/100 ft	112.24 ft	284.38
7500.00 ft	1.74	115.63	100.00 ft	7498.18 ft	26.88 ft	-106.46 ft	26.88 ft	0.65/100 ft	109.80 ft	284.17

Icefield Tools Inc. makes no warranty of any kind with respect to the subject matter included herein or the completeness or accuracy of this document. Icefield Tools Inc. are not responsible for any actions (or lack thereof) taken as a result of relying on or in any way using information contained in this document and in no event shall be liable for any damages resulting from reliance on or use of this information.



SUMMIT
OILFIELD SERVICES, INC

Company: Civitas
Lease/Well: MALONEY 1-16
County/ State: Adams, CO
API#: 05-001-08674

Survey Type: Memory Survey
North Reference: True North
Rig Name: N/A
RKB: N/A

Date: 12-22-21
Job Number: 11203-500108674
Survey Engineer: N. Brehmer
Instrument Number: GP1-1021

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
7600.00 ft	2.13	136.59	100.00 ft	7598.13 ft	24.87 ft	-103.81 ft	24.87 ft	0.81/100 ft	106.75 ft	283.47
7700.00 ft	2.16	140.29	100.00 ft	7698.06 ft	22.07 ft	-101.33 ft	22.07 ft	0.14/100 ft	103.71 ft	282.29
7800.00 ft	1.70	139.60	100.00 ft	7798.00 ft	19.49 ft	-99.16 ft	19.49 ft	0.46/100 ft	101.06 ft	281.12
7900.00 ft	0.87	95.34	100.00 ft	7897.98 ft	18.29 ft	-97.44 ft	18.29 ft	1.24/100 ft	99.15 ft	280.63
8000.00 ft	1.32	59.88	100.00 ft	7997.96 ft	18.80 ft	-95.69 ft	18.80 ft	0.79/100 ft	97.51 ft	281.12
8100.00 ft	1.05	107.77	100.00 ft	8097.94 ft	19.10 ft	-93.82 ft	19.10 ft	0.99/100 ft	95.74 ft	281.51
8200.00 ft	1.20	130.64	100.00 ft	8197.92 ft	18.14 ft	-92.15 ft	18.14 ft	0.47/100 ft	93.92 ft	281.14
8300.00 ft	0.76	143.29	100.00 ft	8297.91 ft	16.92 ft	-90.96 ft	16.92 ft	0.48/100 ft	92.52 ft	280.54
8400.00 ft	0.82	139.03	100.00 ft	8397.90 ft	15.85 ft	-90.09 ft	15.85 ft	0.08/100 ft	91.48 ft	279.98
8500.00 ft	0.68	132.60	100.00 ft	8497.89 ft	14.91 ft	-89.18 ft	14.91 ft	0.16/100 ft	90.42 ft	279.49

Icefield Tools Inc. makes no warranty of any kind with respect to the subject matter included herein or the completeness or accuracy of this document. Icefield Tools Inc. are not responsible for any actions (or lack thereof) taken as a result of relying on or in any way using information contained in this document and in no event shall be liable for any damages resulting from reliance on or use of this information.