

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOV 09 2018

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. 14-20-603-5034
2. Name of Operator Tacitus, LLC		6. If Indian, Allottee or Tribe Name Navajo
3a. Address 2100 Cortland Drive, Farmington, NM 87401	3b. Phone No. (include area code) 403-400-0459	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 16 T26N R18W; NENW 760' FNL & 2040' FWL 36.493580 N Lat, 108.765900 W Long		8. Well Name and No. Navajo Tribal "U" 16
		9. API Well No. 30-045-21358
		10. Field and Pool, or Exploratory Area Tocito Dome
		11. County or Parish, State San Juan, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☒ New Construction	☐ Recomplete	☐ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

9/11/18 - 9/29/18:

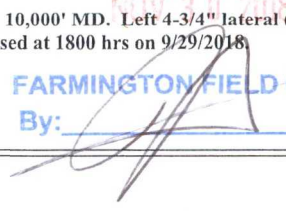
Time drill off cement plug at 5897'. Continue drilling 6-1/8" curve section to a total MD 7778'. Ran 193 jts of 5-1/2", P110, BTC casing w/ SC couplings to a depth of 7778'. Cement in place w/ 10 bbls of 11.5 ppg tuned spacer, 170 sx (231 cf) of Varicem Cement. Calculated volumes to bring cement inside 7" to ~4000' (top of 7" window: 4638', bottom of 7" window: 4650'). Change out BOPE equipment from 11' to 7-1/16". 3 rd pressure test 250 psi (low) and 5000 psi (high). Test annular 250 psi (low) and 2500 psi (high). Pressure test casing 3100 psi - held for 30 min.

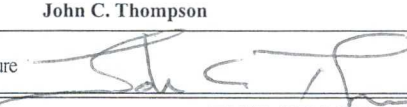
ACCEPTED FOR RECORD

Note: casing, cement and pressure tests witnessed by Sterling Walter and Davis Benally w/ Navajo Nations Minerals Dept.

Drill out 5-1/2" casing w/ 4-3/4" directional drilling assembly. Drill 4-3/4" lateral to 10,000' MD. Left 4-3/4" lateral (7,778' to 10,000') open hole. Set 5-1/2" RBP at 3500'. RD & release all equipment from location. Rig released at 1800 hrs on 9/29/2018.

Attachment: Directional survey

FARMINGTON FIELD OFFICE
By: 

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) John C. Thompson		Title Agent/Engineer for Tacitus, LLC
Signature 		Date 10/25/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Title Date
	Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

DEC 04 2018

NMOCD

DISTRICT III

10

Tacitus Venture Corp.

San Juan County, NM NAD83

Navajo Tribal Pad

Navajo Tribal U16

ST

Design: ST

Standard Survey Report

11 October, 2018



www.scientificdrilling.com

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Navajo Tribal Pad		
Site Position:		Northing:	2,000,216.89 usft
From:	Lat/Long	Easting:	2,448,855.35 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.4933600
		Longitude:	-108.7663070
		Grid Convergence:	-0.55 °

Well	Navajo Tribal U16		
Well Position	+N/-S	0.00 usft	Northing: 2,000,216.89 usft
	+E/-W	0.00 usft	Easting: 2,448,855.35 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.4933600
		Longitude:	-108.7663070
		Ground Level:	5,800.00 usft

Wellbore	ST		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	8/16/2018	9.45
			Dip Angle (°)
			62.83
			Field Strength (nT)
			49,605

Design	ST		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			225.000

Survey Program	Date 10/11/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
87.16	4,583.92	Survey #1 - Gyro Survey (ST)	Standard Keeper 104
4,650.99	10,000.00	Survey #2 - MWD Survey (ST)	MWD+HDGM
			Description
			Standard Wireline Keeper ver 1.0.4
			OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.16	0.36	310.430	87.16	0.18	-0.21	0.02	0.41	0.41	0.00
112.97	0.33	316.590	112.97	0.28	-0.32	0.03	0.18	-0.12	23.87
138.69	0.32	322.250	138.69	0.39	-0.42	0.02	0.13	-0.04	22.01
162.50	0.34	315.580	162.50	0.50	-0.51	0.01	0.18	0.08	-28.01
190.18	0.38	307.530	190.18	0.61	-0.64	0.02	0.23	0.14	-29.08
214.53	0.41	300.420	214.53	0.71	-0.78	0.05	0.24	0.12	-29.20
240.14	0.43	297.590	240.14	0.80	-0.94	0.10	0.11	0.08	-11.05
262.83	0.60	286.830	262.82	0.87	-1.13	0.18	0.86	0.75	-47.42
289.36	0.75	284.070	289.35	0.95	-1.43	0.34	0.58	0.57	-10.40

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
313.03	0.95	283.630	313.02	1.04	-1.77	0.52	0.85	0.84	-1.86
340.09	1.22	282.570	340.08	1.15	-2.27	0.79	1.00	1.00	-3.92
363.88	1.40	282.490	363.86	1.27	-2.80	1.08	0.76	0.76	-0.34
387.38	1.38	282.410	387.35	1.39	-3.36	1.39	0.09	-0.09	-0.34
414.42	1.39	283.420	414.38	1.54	-4.00	1.74	0.10	0.04	3.74
437.47	1.40	282.290	437.43	1.66	-4.54	2.04	0.13	0.04	-4.90
464.63	1.41	282.390	464.58	1.81	-5.19	2.39	0.04	0.04	0.37
488.23	1.46	283.840	488.17	1.94	-5.77	2.71	0.26	0.21	6.14
515.26	1.21	286.800	515.19	2.11	-6.38	3.02	0.96	-0.92	10.95
539.17	0.69	312.570	539.10	2.28	-6.72	3.15	2.76	-2.17	107.78
565.32	0.62	334.080	565.25	2.51	-6.90	3.11	0.97	-0.27	82.26
589.02	0.61	349.530	588.95	2.75	-6.98	2.99	0.70	-0.04	65.19
612.82	0.75	338.630	612.75	3.02	-7.06	2.86	0.80	0.59	-45.80
639.66	1.18	306.490	639.58	3.35	-7.35	2.83	2.52	1.60	-119.75
663.45	1.77	293.960	663.36	3.64	-7.88	3.00	2.81	2.48	-52.67
690.38	2.37	287.850	690.28	3.98	-8.79	3.40	2.37	2.23	-22.69
713.50	2.67	285.200	713.37	4.27	-9.76	3.89	1.39	1.30	-11.46
737.34	3.19	282.530	737.18	4.56	-10.95	4.52	2.25	2.18	-11.20
764.76	3.32	280.520	764.56	4.87	-12.47	5.38	0.63	0.47	-7.33
789.27	3.36	280.510	789.03	5.13	-13.88	6.19	0.16	0.16	-0.04
813.72	3.42	279.660	813.43	5.38	-15.30	7.01	0.32	0.25	-3.48
837.56	3.32	277.720	837.23	5.59	-16.69	7.84	0.64	-0.42	-8.14
865.33	3.31	274.790	864.96	5.77	-18.28	8.85	0.61	-0.04	-10.55
889.89	3.22	273.030	889.48	5.87	-19.68	9.77	0.55	-0.37	-7.17
914.20	3.11	270.920	913.75	5.91	-21.02	10.68	0.66	-0.45	-8.68
938.62	3.06	268.890	938.13	5.91	-22.33	11.61	0.49	-0.20	-8.31
962.45	2.97	266.390	961.93	5.86	-23.58	12.53	0.67	-0.38	-10.49
990.20	2.93	263.610	989.64	5.73	-25.01	13.63	0.54	-0.14	-10.02
1,014.74	2.92	263.120	1,014.15	5.59	-26.25	14.61	0.11	-0.04	-2.00
1,039.17	2.95	262.710	1,038.55	5.44	-27.49	15.60	0.15	0.12	-1.68
1,063.66	2.98	263.060	1,063.01	5.28	-28.75	16.60	0.14	0.12	1.43
1,087.30	2.98	264.030	1,086.62	5.14	-29.97	17.56	0.21	0.00	4.10
1,115.21	3.01	267.190	1,114.49	5.03	-31.42	18.66	0.60	0.11	11.32
1,139.61	3.08	274.320	1,138.85	5.05	-32.72	19.56	1.58	0.29	29.22
1,164.07	3.08	277.920	1,163.28	5.19	-34.02	20.39	0.79	0.00	14.72
1,188.49	3.15	280.750	1,187.66	5.40	-35.33	21.16	0.69	0.29	11.59
1,212.27	3.03	281.630	1,211.41	5.65	-36.59	21.88	0.54	-0.50	3.70
1,240.15	3.16	283.180	1,239.25	5.97	-38.06	22.69	0.55	0.47	5.56
1,264.56	3.05	284.350	1,263.62	6.29	-39.34	23.37	0.52	-0.45	4.79
1,288.93	3.02	284.610	1,287.96	6.61	-40.59	24.03	0.14	-0.12	1.07
1,313.33	3.09	285.920	1,312.32	6.95	-41.85	24.67	0.41	0.29	5.37
1,337.17	2.99	286.220	1,336.13	7.30	-43.06	25.28	0.42	-0.42	1.26
1,365.08	3.00	286.620	1,364.00	7.72	-44.46	25.98	0.08	0.04	1.43

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,389.49	2.86	287.910	1,388.38	8.09	-45.65	26.56	0.63	-0.57	5.28
1,413.92	2.77	288.580	1,412.78	8.46	-46.79	27.10	0.39	-0.37	2.74
1,438.27	2.61	289.530	1,437.10	8.83	-47.87	27.60	0.68	-0.66	3.90
1,465.87	2.46	289.940	1,464.67	9.25	-49.02	28.12	0.55	-0.54	1.49
1,489.08	2.45	290.770	1,487.86	9.59	-49.95	28.54	0.16	-0.04	3.58
1,513.27	2.27	291.780	1,512.03	9.95	-50.88	28.94	0.76	-0.74	4.18
1,540.42	2.22	293.140	1,539.16	10.36	-51.86	29.35	0.27	-0.18	5.01
1,564.40	2.20	292.340	1,563.12	10.72	-52.72	29.70	0.15	-0.08	-3.34
1,588.37	2.18	293.230	1,587.08	11.07	-53.56	30.04	0.16	-0.08	3.71
1,615.16	2.24	292.230	1,613.85	11.47	-54.51	30.44	0.27	0.22	-3.73
1,639.13	2.18	292.990	1,637.80	11.83	-55.37	30.79	0.28	-0.25	3.17
1,663.10	2.20	291.990	1,661.75	12.18	-56.21	31.14	0.18	0.08	-4.17
1,690.56	2.11	292.150	1,689.19	12.56	-57.17	31.54	0.33	-0.33	0.58
1,714.24	2.11	291.700	1,712.85	12.89	-57.98	31.88	0.07	0.00	-1.90
1,737.93	2.08	292.710	1,736.53	13.22	-58.78	32.22	0.20	-0.13	4.26
1,764.99	2.05	292.120	1,763.57	13.59	-59.68	32.59	0.14	-0.11	-2.18
1,788.98	2.07	291.740	1,787.55	13.91	-60.48	32.93	0.10	0.08	-1.58
1,812.95	2.05	291.190	1,811.50	14.23	-61.28	33.27	0.12	-0.08	-2.29
1,840.29	1.99	291.840	1,838.82	14.58	-62.18	33.66	0.23	-0.22	2.38
1,863.76	1.97	291.340	1,862.28	14.88	-62.93	33.98	0.11	-0.09	-2.13
1,887.63	2.04	290.380	1,886.13	15.18	-63.71	34.32	0.33	0.29	-4.02
1,914.91	2.04	289.340	1,913.40	15.51	-64.63	34.73	0.14	0.00	-3.81
1,938.77	2.04	288.210	1,937.24	15.78	-65.43	35.11	0.17	0.00	-4.74
1,962.83	2.10	288.550	1,961.29	16.05	-66.26	35.50	0.25	0.25	1.41
1,990.07	2.10	288.400	1,988.51	16.37	-67.20	35.95	0.02	0.00	-0.55
2,013.44	1.99	286.640	2,011.86	16.62	-68.00	36.33	0.54	-0.47	-7.53
2,037.41	2.01	286.610	2,035.82	16.86	-68.80	36.73	0.08	0.08	-0.13
2,064.81	1.99	285.200	2,063.20	17.12	-69.72	37.19	0.19	-0.07	-5.15
2,088.78	1.91	283.160	2,087.16	17.32	-70.51	37.61	0.44	-0.33	-8.51
2,112.77	1.75	275.720	2,111.13	17.45	-71.26	38.05	1.19	-0.67	-31.01
2,139.99	1.66	272.860	2,138.34	17.51	-72.07	38.58	0.45	-0.33	-10.51
2,162.87	1.78	273.470	2,161.21	17.55	-72.76	39.04	0.53	0.52	2.67
2,189.76	1.71	272.830	2,188.09	17.59	-73.57	39.58	0.27	-0.26	-2.38
2,213.31	1.79	272.940	2,211.63	17.63	-74.29	40.07	0.34	0.34	0.47
2,240.14	1.57	269.560	2,238.45	17.65	-75.08	40.61	0.90	-0.82	-12.60
2,263.63	1.65	269.790	2,261.93	17.64	-75.74	41.08	0.34	0.34	0.98
2,289.91	1.49	268.580	2,288.20	17.64	-76.46	41.59	0.62	-0.61	-4.60
2,313.39	1.46	268.120	2,311.67	17.62	-77.06	42.03	0.14	-0.13	-1.96
2,340.36	1.51	268.580	2,338.63	17.60	-77.76	42.54	0.19	0.19	1.71
2,363.71	1.33	266.370	2,361.97	17.57	-78.34	42.97	0.81	-0.77	-9.46
2,387.25	1.34	267.580	2,385.51	17.54	-78.89	43.38	0.13	0.04	5.14
2,414.10	1.35	266.880	2,412.35	17.51	-79.52	43.84	0.07	0.04	-2.61
2,440.95	1.29	264.970	2,439.19	17.47	-80.13	44.31	0.28	-0.22	-7.11

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,463.92	1.31	266.120	2,462.16	17.43	-80.65	44.71	0.14	0.09	5.01
2,487.36	1.32	266.040	2,485.59	17.39	-81.19	45.11	0.04	0.04	-0.34
2,514.39	1.41	266.730	2,512.61	17.35	-81.83	45.59	0.34	0.33	2.55
2,537.75	1.20	265.940	2,535.98	17.32	-82.36	45.99	0.90	-0.90	-3.38
2,564.61	1.27	268.980	2,562.83	17.29	-82.94	46.42	0.36	0.26	11.32
2,587.58	1.15	266.630	2,585.80	17.28	-83.43	46.78	0.57	-0.52	-10.23
2,614.34	1.06	265.600	2,612.55	17.24	-83.94	47.16	0.34	-0.34	-3.85
2,638.01	1.03	263.890	2,636.22	17.20	-84.37	47.50	0.18	-0.13	-7.22
2,664.68	0.92	257.860	2,662.88	17.13	-84.82	47.86	0.56	-0.41	-22.61
2,688.22	0.97	260.320	2,686.42	17.06	-85.20	48.18	0.27	0.21	10.45
2,715.08	1.02	261.230	2,713.28	16.98	-85.66	48.56	0.20	0.19	3.39
2,737.97	0.94	256.950	2,736.16	16.91	-86.04	48.89	0.47	-0.35	-18.70
2,764.94	0.91	251.070	2,763.13	16.79	-86.46	49.27	0.37	-0.11	-21.80
2,788.40	0.92	246.620	2,786.59	16.65	-86.81	49.61	0.31	0.04	-18.97
2,815.33	0.97	247.840	2,813.51	16.48	-87.22	50.02	0.20	0.19	4.53
2,838.35	0.92	240.080	2,836.53	16.32	-87.56	50.38	0.60	-0.22	-33.71
2,864.71	0.98	239.600	2,862.88	16.10	-87.94	50.80	0.23	0.23	-1.82
2,887.22	0.98	235.680	2,885.39	15.89	-88.26	51.18	0.30	0.00	-17.41
2,913.48	1.00	236.150	2,911.65	15.64	-88.64	51.62	0.08	0.08	1.79
2,939.95	1.00	236.180	2,938.11	15.38	-89.02	52.07	0.00	0.00	0.11
2,962.83	0.93	231.510	2,960.99	15.15	-89.34	52.45	0.46	-0.31	-20.41
2,989.17	0.94	236.020	2,987.33	14.90	-89.68	52.88	0.28	0.04	17.12
3,012.25	0.95	232.930	3,010.40	14.68	-89.99	53.25	0.22	0.04	-13.39
3,038.57	0.93	233.040	3,036.72	14.42	-90.34	53.68	0.08	-0.08	0.42
3,064.35	0.96	232.250	3,062.50	14.16	-90.67	54.10	0.13	0.12	-3.06
3,087.36	0.91	232.570	3,085.50	13.93	-90.97	54.48	0.22	-0.22	1.39
3,113.70	0.85	233.470	3,111.84	13.69	-91.30	54.88	0.23	-0.23	3.42
3,139.98	0.79	236.290	3,138.12	13.47	-91.60	55.25	0.28	-0.23	10.73
3,162.99	0.81	232.940	3,161.12	13.29	-91.86	55.56	0.22	0.09	-14.56
3,189.42	0.82	234.170	3,187.55	13.06	-92.17	55.94	0.08	0.04	4.65
3,215.75	0.81	233.480	3,213.88	12.84	-92.47	56.31	0.05	-0.04	-2.62
3,238.34	0.90	237.730	3,236.47	12.65	-92.75	56.64	0.49	0.40	18.81
3,263.67	0.85	237.820	3,261.79	12.44	-93.07	57.01	0.20	-0.20	0.36
3,288.33	0.74	228.260	3,286.45	12.24	-93.35	57.35	0.70	-0.45	-38.77
3,312.85	0.86	232.790	3,310.97	12.02	-93.61	57.69	0.55	0.49	18.47
3,339.00	0.83	230.740	3,337.12	11.79	-93.92	58.07	0.16	-0.11	-7.84
3,363.82	0.84	233.310	3,361.93	11.56	-94.20	58.43	0.16	0.04	10.35
3,387.53	0.85	227.660	3,385.64	11.34	-94.47	58.78	0.35	0.04	-23.83
3,412.84	0.80	225.260	3,410.95	11.09	-94.73	59.15	0.24	-0.20	-9.48
3,437.71	0.69	224.490	3,435.82	10.86	-94.96	59.47	0.44	-0.44	-3.10
3,464.99	0.62	223.250	3,463.09	10.64	-95.18	59.78	0.26	-0.26	-4.55
3,489.38	0.56	220.190	3,487.48	10.45	-95.35	60.03	0.28	-0.25	-12.55
3,513.64	0.50	211.250	3,511.74	10.27	-95.48	60.25	0.42	-0.25	-36.85
3,537.70	0.59	206.910	3,535.80	10.07	-95.59	60.47	0.41	0.37	-18.04

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,564.75	0.45	205.570	3,562.85	9.85	-95.70	60.70	0.52	-0.52	-4.95
3,589.01	0.14	249.580	3,587.11	9.75	-95.77	60.82	1.49	-1.28	181.41
3,613.08	0.24	294.290	3,611.18	9.76	-95.84	60.87	0.71	0.42	185.75
3,637.16	0.22	296.120	3,635.26	9.80	-95.93	60.90	0.09	-0.08	7.60
3,664.36	0.28	291.250	3,662.46	9.85	-96.04	60.94	0.23	0.22	-17.90
3,688.44	0.22	337.860	3,686.54	9.91	-96.11	60.95	0.85	-0.25	193.56
3,715.57	0.27	20.950	3,713.67	10.02	-96.10	60.87	0.69	0.18	158.83
3,739.73	0.37	34.640	3,737.83	10.14	-96.04	60.74	0.52	0.41	56.66
3,763.39	0.44	40.390	3,761.49	10.27	-95.94	60.57	0.34	0.30	24.30
3,787.49	0.46	43.750	3,785.59	10.41	-95.81	60.39	0.14	0.08	13.94
3,814.58	0.50	58.300	3,812.67	10.55	-95.64	60.16	0.47	0.15	53.71
3,838.89	0.55	65.280	3,836.98	10.66	-95.44	59.95	0.33	0.21	28.71
3,863.00	0.57	64.910	3,861.09	10.76	-95.23	59.73	0.08	0.08	-1.53
3,887.20	0.63	63.280	3,885.29	10.87	-95.00	59.49	0.26	0.25	-6.74
3,914.40	0.66	60.450	3,912.49	11.01	-94.73	59.20	0.16	0.11	-10.40
3,938.53	0.62	61.020	3,936.62	11.14	-94.49	58.94	0.17	-0.17	2.36
3,962.66	0.63	66.780	3,960.75	11.26	-94.26	58.69	0.26	0.04	23.87
3,989.96	0.81	67.960	3,988.04	11.39	-93.94	58.37	0.66	0.66	4.32
4,014.08	0.96	68.180	4,012.16	11.53	-93.59	58.03	0.62	0.62	0.91
4,037.82	1.25	65.330	4,035.90	11.71	-93.17	57.60	1.24	1.22	-12.01
4,065.54	1.53	63.800	4,063.61	12.00	-92.57	56.97	1.02	1.01	-5.52
4,088.76	1.66	64.840	4,086.82	12.28	-91.98	56.36	0.57	0.56	4.48
4,113.42	1.83	63.050	4,111.47	12.61	-91.31	55.65	0.72	0.69	-7.26
4,137.59	2.03	63.830	4,135.62	12.98	-90.58	54.88	0.83	0.83	3.23
4,164.42	2.17	63.090	4,162.44	13.42	-89.70	53.94	0.53	0.52	-2.76
4,188.08	2.23	61.790	4,186.08	13.84	-88.90	53.08	0.33	0.25	-5.49
4,214.76	2.32	59.580	4,212.74	14.35	-87.97	52.06	0.47	0.34	-8.28
4,238.53	2.42	60.500	4,236.49	14.85	-87.12	51.11	0.45	0.42	3.87
4,262.22	2.77	58.680	4,260.15	15.39	-86.20	50.07	1.52	1.48	-7.68
4,288.94	3.30	54.870	4,286.84	16.17	-85.02	48.68	2.12	1.98	-14.26
4,312.61	3.73	53.000	4,310.46	17.02	-83.85	47.25	1.88	1.82	-7.90
4,338.53	3.95	52.690	4,336.32	18.07	-82.46	45.53	0.85	0.85	-1.20
4,363.32	4.03	52.880	4,361.05	19.11	-81.09	43.82	0.33	0.32	0.77
4,388.31	3.89	51.790	4,385.98	20.17	-79.72	42.11	0.64	-0.56	-4.36
4,413.08	3.63	52.140	4,410.70	21.17	-78.44	40.50	1.05	-1.05	1.41
4,437.73	3.48	51.890	4,435.30	22.11	-77.24	38.98	0.61	-0.61	-1.01
4,462.28	3.37	51.920	4,459.81	23.02	-76.08	37.53	0.45	-0.45	0.12
4,488.12	3.15	51.070	4,485.61	23.93	-74.93	36.07	0.87	-0.85	-3.29
4,512.64	3.04	55.510	4,510.09	24.72	-73.87	34.76	1.08	-0.45	18.11
4,537.16	2.78	54.440	4,534.58	25.44	-72.85	33.53	1.08	-1.06	-4.36
4,563.24	2.76	54.030	4,560.63	26.17	-71.83	32.29	0.11	-0.08	-1.57
4,583.92	2.71	54.570	4,581.28	26.75	-71.03	31.31	0.27	-0.24	2.61
4,651.00	2.70	54.570	4,648.29	28.58	-68.45	28.19	0.01	-0.01	0.00

Scientific Drilling, Intl

Survey Report



Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,658.00	1.23	229.310	4,655.29	28.63	-68.37	28.10	56.09	-21.00	2,496.29
4,689.00	4.40	214.720	4,686.25	27.43	-69.30	29.61	10.40	10.23	-47.06
4,721.00	6.16	209.880	4,718.11	24.94	-70.86	32.47	5.67	5.50	-15.13
4,753.00	7.74	215.950	4,749.87	21.70	-72.98	36.26	5.44	4.94	18.97
4,815.00	12.40	217.710	4,810.90	13.05	-79.51	46.99	7.53	7.52	2.84
4,860.00	12.56	216.930	4,854.84	5.32	-85.40	56.63	0.52	0.36	-1.73
4,923.00	12.63	211.820	4,916.32	-6.01	-93.15	70.11	1.77	0.11	-8.11
4,981.00	13.01	210.370	4,972.88	-17.03	-99.79	82.61	0.86	0.66	-2.50
5,044.00	14.07	203.860	5,034.13	-30.15	-106.48	96.61	2.94	1.68	-10.33
5,107.00	12.81	203.240	5,095.40	-43.57	-112.33	110.24	2.01	-2.00	-0.98
5,170.00	12.99	203.870	5,156.81	-56.47	-117.95	123.33	0.36	0.29	1.00
5,233.00	13.60	205.840	5,218.12	-69.61	-124.04	136.93	1.21	0.97	3.13
5,296.00	12.60	205.730	5,279.48	-82.46	-130.26	150.42	1.59	-1.59	-0.17
5,359.00	14.42	205.710	5,340.74	-95.72	-136.64	164.31	2.89	2.89	-0.03
5,422.00	14.53	195.700	5,401.75	-110.40	-142.18	178.61	3.97	0.17	-15.89
5,485.00	13.66	184.600	5,462.86	-125.43	-144.92	191.17	4.50	-1.38	-17.62
5,547.00	14.01	185.950	5,523.06	-140.19	-146.29	202.57	0.77	0.56	2.18
5,610.00	14.32	184.560	5,584.15	-155.54	-147.70	214.42	0.73	0.49	-2.21
5,673.00	15.72	185.490	5,644.99	-171.80	-149.13	226.94	2.25	2.22	1.48
5,736.00	13.11	182.110	5,706.01	-187.44	-150.21	238.76	4.35	-4.14	-5.37
5,798.00	13.77	183.580	5,766.31	-201.83	-150.93	249.44	1.20	1.06	2.37
5,861.00	13.93	185.080	5,827.48	-216.87	-152.07	260.88	0.62	0.25	2.38
5,892.00	13.63	185.320	5,857.58	-224.22	-152.74	266.55	0.99	-0.97	0.77
5,923.00	10.26	191.120	5,887.91	-230.57	-153.61	271.66	11.53	-10.87	18.71
5,955.00	8.22	238.700	5,919.54	-234.56	-156.12	276.25	23.93	-6.38	148.69
5,987.00	9.45	250.710	5,951.16	-236.62	-160.55	280.84	6.91	3.84	37.53
6,018.00	10.60	233.410	5,981.69	-239.16	-165.25	285.96	10.35	3.71	-55.81
6,050.00	11.44	223.410	6,013.10	-243.22	-169.79	292.04	6.51	2.63	-31.25
6,081.00	12.84	218.230	6,043.41	-248.16	-174.04	298.54	5.72	4.52	-16.71
6,112.00	14.17	213.010	6,073.55	-254.05	-178.23	305.67	5.82	4.29	-16.84
6,144.00	15.65	208.340	6,104.48	-261.13	-182.42	313.64	5.95	4.63	-14.59
6,175.00	17.25	200.750	6,134.21	-269.11	-186.03	321.83	8.63	5.16	-24.48
6,206.00	19.38	196.840	6,163.64	-278.33	-189.15	330.56	7.93	6.87	-12.61
6,238.00	21.90	198.690	6,193.58	-289.07	-192.60	340.59	8.13	7.88	5.78
6,269.00	23.52	198.780	6,222.18	-300.40	-196.45	351.33	5.23	5.23	0.29
6,300.00	25.66	198.610	6,250.37	-312.62	-200.58	362.89	6.91	6.90	-0.55
6,332.00	26.77	201.970	6,279.08	-325.87	-205.49	375.73	5.79	3.47	10.50
6,363.00	27.86	202.880	6,306.62	-339.02	-210.92	388.86	3.77	3.52	2.94
6,396.00	29.24	200.680	6,335.61	-353.67	-216.76	403.35	5.26	4.18	-6.67
6,427.00	34.29	200.860	6,361.95	-368.92	-222.55	418.23	16.29	16.29	0.58
6,458.00	41.42	201.930	6,386.41	-386.62	-229.50	435.66	23.10	23.00	3.45
6,489.00	48.72	201.230	6,408.29	-407.01	-237.55	455.78	23.60	23.55	-2.26
6,521.00	53.62	201.090	6,428.35	-430.25	-246.55	478.57	15.32	15.31	-0.44

Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,551.00	56.75	201.950	6,445.48	-453.16	-255.59	501.16	10.70	10.43	2.87
6,583.00	59.58	204.390	6,462.36	-478.15	-266.29	526.40	10.96	8.84	7.63
6,615.00	63.52	208.960	6,477.60	-503.26	-278.93	553.09	17.58	12.31	14.28
6,646.00	64.75	212.750	6,491.13	-527.20	-293.24	580.14	11.69	3.97	12.23
6,679.00	65.26	217.820	6,505.08	-551.60	-310.51	609.61	14.01	1.55	15.36
6,709.00	67.28	222.780	6,517.16	-572.53	-328.27	636.96	16.56	6.73	16.53
6,741.00	67.10	226.260	6,529.57	-593.56	-348.95	666.45	10.04	-0.56	10.88
6,772.00	66.93	229.390	6,541.68	-612.72	-370.09	694.95	9.31	-0.55	10.10
6,804.00	68.15	234.450	6,553.91	-630.95	-393.37	724.30	15.10	3.81	15.81
6,867.00	70.59	240.660	6,576.12	-662.53	-443.10	781.80	10.00	3.87	9.86
6,929.00	69.60	243.850	6,597.24	-689.67	-494.68	837.47	5.09	-1.60	5.15
6,992.00	70.41	247.310	6,618.78	-714.14	-548.58	892.88	5.32	1.29	5.49
7,055.00	71.30	250.540	6,639.45	-735.53	-604.11	947.27	5.05	1.41	5.13
7,118.00	74.01	254.530	6,658.24	-753.56	-661.46	1,000.57	7.42	4.30	6.33
7,149.00	76.03	256.090	6,666.25	-761.15	-690.42	1,026.42	8.13	6.52	5.03
7,181.00	78.71	257.280	6,673.25	-768.34	-720.81	1,052.99	9.13	8.38	3.72
7,212.00	81.45	259.200	6,678.59	-774.56	-750.70	1,078.52	10.74	8.84	6.19
7,243.00	83.74	260.420	6,682.58	-780.00	-780.95	1,103.76	8.35	7.39	3.94
7,274.00	85.67	262.560	6,685.44	-784.57	-811.48	1,128.57	9.27	6.23	6.90
7,306.00	88.05	264.530	6,687.20	-788.16	-843.22	1,153.56	9.65	7.44	6.16
7,338.00	89.80	266.200	6,687.80	-790.74	-875.11	1,177.93	7.56	5.47	5.22
7,369.00	91.31	267.530	6,687.50	-792.44	-906.06	1,201.02	6.49	4.87	4.29
7,401.00	91.48	268.100	6,686.72	-793.66	-938.03	1,224.48	1.86	0.53	1.78
7,432.00	91.81	268.080	6,685.83	-794.69	-969.00	1,247.11	1.07	1.06	-0.06
7,495.00	91.51	267.900	6,684.00	-796.90	-1,031.93	1,293.18	0.56	-0.48	-0.29
7,558.01	91.48	267.410	6,682.36	-799.48	-1,094.87	1,339.50	0.78	-0.05	-0.78
7,620.00	91.04	267.270	6,681.00	-802.35	-1,156.78	1,385.32	0.74	-0.71	-0.23
7,683.00	90.91	266.950	6,679.92	-805.53	-1,219.69	1,432.05	0.55	-0.21	-0.51
7,707.00	90.97	266.650	6,679.53	-806.87	-1,243.65	1,449.94	1.27	0.25	-1.25
7,819.00	89.83	266.970	6,678.75	-813.10	-1,355.48	1,533.41	1.06	-1.02	0.29
7,880.00	89.16	267.460	6,679.29	-816.06	-1,416.40	1,578.59	1.36	-1.10	0.80
7,914.00	89.26	267.390	6,679.75	-817.59	-1,450.36	1,603.69	0.36	0.29	-0.21
7,946.00	89.93	267.310	6,679.98	-819.07	-1,482.33	1,627.33	2.11	2.09	-0.25
7,977.00	92.25	267.340	6,679.39	-820.52	-1,513.29	1,650.25	7.48	7.48	0.10
8,007.00	93.06	267.110	6,678.00	-821.97	-1,543.22	1,672.44	2.81	2.70	-0.77
8,039.00	93.40	267.730	6,676.20	-823.41	-1,575.13	1,696.02	2.21	1.06	1.94
8,070.00	93.02	267.220	6,674.46	-824.77	-1,606.06	1,718.85	2.05	-1.23	-1.65
8,133.00	93.84	267.690	6,670.69	-827.56	-1,668.88	1,765.25	1.50	1.30	0.75
8,197.00	93.90	267.450	6,666.37	-830.27	-1,732.68	1,812.28	0.39	0.09	-0.38
8,261.00	93.73	267.620	6,662.12	-833.02	-1,796.48	1,859.33	0.38	-0.27	0.27
8,326.00	95.18	269.000	6,657.07	-834.93	-1,861.25	1,906.48	3.08	2.23	2.12
8,389.00	95.55	269.510	6,651.18	-835.74	-1,923.97	1,951.41	1.00	0.59	0.81
8,451.00	95.31	269.250	6,645.31	-836.41	-1,985.68	1,995.52	0.57	-0.39	-0.42
8,514.00	95.22	269.830	6,639.53	-836.91	-2,048.42	2,040.24	0.93	-0.14	0.92

Scientific Drilling, Intl
Survey Report



Company:	Tacitus Venture Corp.	Local Co-ordinate Reference:	Well Navajo Tribal U16
Project:	San Juan County, NM NAD83	TVD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Site:	Navajo Tribal Pad	MD Reference:	GL 5800' & RKB 17' @ 5817.00usft (Aztec 777)
Well:	Navajo Tribal U16	North Reference:	True
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,576.00	94.88	269.730	6,634.07	-837.15	-2,110.17	2,084.07	0.57	-0.55	-0.16
8,637.00	94.27	269.450	6,629.20	-837.59	-2,170.98	2,127.38	1.10	-1.00	-0.46
8,701.00	95.48	268.870	6,623.77	-838.52	-2,234.74	2,173.12	2.10	1.89	-0.91
8,764.00	98.28	269.310	6,616.22	-839.52	-2,297.27	2,218.04	4.50	4.44	0.70
8,827.00	98.22	268.680	6,607.18	-840.61	-2,359.61	2,262.89	0.99	-0.10	-1.00
8,890.00	98.15	268.210	6,598.21	-842.30	-2,421.94	2,308.17	0.75	-0.11	-0.75
8,956.00	95.92	269.340	6,590.13	-843.70	-2,487.43	2,355.46	3.78	-3.38	1.71
9,019.00	95.01	268.700	6,584.13	-844.77	-2,550.13	2,400.56	1.76	-1.44	-1.02
9,082.00	94.90	268.850	6,578.69	-846.11	-2,612.88	2,445.88	0.29	-0.17	0.24
9,146.00	93.02	269.670	6,574.27	-846.94	-2,676.72	2,491.60	3.20	-2.94	1.28
9,209.00	93.06	269.700	6,570.93	-847.28	-2,739.63	2,536.33	0.08	0.06	0.05
9,273.00	92.76	269.080	6,567.68	-847.97	-2,803.54	2,582.00	1.08	-0.47	-0.97
9,336.00	90.17	268.990	6,566.07	-849.03	-2,866.51	2,627.28	4.11	-4.11	-0.14
9,397.00	89.66	268.180	6,566.16	-850.53	-2,927.49	2,671.46	1.57	-0.84	-1.33
9,461.00	89.23	267.970	6,566.78	-852.68	-2,991.45	2,718.21	0.75	-0.67	-0.33
9,524.00	91.01	268.170	6,566.64	-854.80	-3,054.41	2,764.23	2.84	2.83	0.32
9,586.00	90.64	267.490	6,565.75	-857.15	-3,116.36	2,809.69	1.25	-0.60	-1.10
9,649.00	90.57	267.520	6,565.09	-859.89	-3,179.29	2,856.14	0.12	-0.11	0.05
9,711.00	90.37	267.870	6,564.58	-862.39	-3,241.24	2,901.70	0.65	-0.32	0.56
9,775.00	89.66	267.440	6,564.56	-865.01	-3,305.19	2,948.77	1.30	-1.11	-0.67
9,839.00	88.96	267.280	6,565.33	-867.95	-3,369.11	2,996.06	1.12	-1.09	-0.25
9,902.00	90.24	266.930	6,565.77	-871.13	-3,432.03	3,042.80	2.11	2.03	-0.56
9,953.00	90.30	266.850	6,565.53	-873.90	-3,482.95	3,080.76	0.20	0.12	-0.16
10,000.00	90.30	266.850	6,565.28	-876.48	-3,529.88	3,115.77	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____