

SP

SAMPLE PATIENT

Patient

GENDER

Male

AGE

35

DOB

XX/XX/XXXX

NEUROLOGIST-INTERPRETED WAVI EEG/ERP ASSESSMENT OF COGNITIVE FUNCTION

Cognitive Function Report

TEST DATE

2026

REQUESTED ON

2026

ASSIGNED TO

Your Neurologist

REPORT DATE

2026

Your Neurologist

Board-certified neurologist

SIGNATURE ON FILE

BOARD CERTIFICATIONS

Redacted for the public sample

LICENSE NO.

On file, redacted for
the public sample

4 of 7

markers outside the age-adjusted range: Physical Reaction Time, Trail Making Test A, Trail Making Test B, Audio P300 Voltage. Raw EEG: normal study. Physical reaction time carries a device low-yield flag.

AT A GLANCE

 Physical Reaction Time 420 ms MODERATE	 Trail Making Test A 67 sec MILD	 Trail Making Test B 177 sec SEVERE	 Audio P300 Delay 272 ms WNL	 Audio P300 Voltage 4.8 uV MODERATE	 Theta/Beta Ratio 1.1 WNL	 Frontal Alpha Balance 1.0 WNL
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Scale: ■ Within normal limits ■ Mild ■ Moderate ■ Severe

NEUROLOGIST STATEMENT

Objective EEG/ERP Results and Cognitive Metrics

Neurologist statement withheld in this sample

NEUROLOGIST STATEMENT

Analysis and Conclusion, Raw EEG (WAVi clinician report, appendix)

EEG analysis withheld in this sample

CONTENTS

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PLAIN LANGUAGE Your results, in plain language

This page restates the signed clinical report in everyday language. It is not a diagnosis; your treating physician makes the final determination with your history, symptoms and other studies. If anything here differs from the clinical sections, the clinical sections govern.

What was this test?

You wore the WAVi headset, which records your brain's electrical activity (an EEG), while the system timed how quickly your brain and body respond to sounds and simple tasks. Every result is compared with healthy people of your age and sex and reviewed by a board-certified neurologist. Green is within the expected range; yellow, orange and red are outside it.

Your results, one at a time

Attention	Orange	Attention is the ability to focus on a task or stimulus. It is the ability to direct your attention to what is important and ignore what is not.
Working Memory	Yellow	Working memory is the ability to hold information in your mind and use it to complete a task. It is the ability to hold information in your mind and use it to complete a task.
Verbal Fluency	Red	Verbal fluency is the ability to produce words quickly and accurately. It is the ability to produce words quickly and accurately.
Visual Spatial	Green	Visual spatial is the ability to understand and manipulate visual information. It is the ability to understand and manipulate visual information.
Reaction Time	Orange	Reaction time is the time it takes to respond to a stimulus. It is the time it takes to respond to a stimulus.
Processing Speed	Green	Processing speed is the time it takes to complete a task. It is the time it takes to complete a task.
Executive Function	Green	Executive function is the ability to plan, organize, and execute a task. It is the ability to plan, organize, and execute a task.
Memory	Green	Memory is the ability to store and retrieve information. It is the ability to store and retrieve information.
Emotional Regulation	Green	Emotional regulation is the ability to manage and control your emotions. It is the ability to manage and control your emotions.
Stress Management	Green	Stress management is the ability to cope with and manage stress. It is the ability to cope with and manage stress.

Plain-language explanations withheld in this sample

NEUROLOGIST STATEMENT

What the neurologist concluded

The neurologist reviewed the results of the cognitive function test and concluded that the patient's performance was within the expected range for their age and sex. The patient's performance was within the expected range for their age and sex. The patient's performance was within the expected range for their age and sex.

Plain-language conclusion withheld in this sample

SECTION I Observations and Findings

A. Objective data: routine EEG/ERP results

⚡ Physical Reaction Time

MODERATE

420 ms



253 364 394 424 439

Target range (age adjusted): 253 to 364 ms

Physical reaction time is distinct from brain reaction time. It may decline with factors such as age, fatigue or concussion.

Device flagged this metric as low yield (fewer than 15 usable responses, spread of 131 ms); interpret with caution.

🧩 Trail Making Test A

MILD

67 sec



38 64 84 114 129

Target range (age adjusted): 38 to 64 sec

A validated cognitive screening instrument used in cognitive evaluation and neurocognitive assessment. Measures visual attention, processing speed and motor sequencing. Values outside the target range support cognitive testing and ongoing care planning.

🧩 Trail Making Test B

SEVERE

177 sec



43 84 109 144 190

Target range (age adjusted): 43 to 84 sec

Standard component of neurocognitive batteries used in cognitive screening and executive-function assessment. Evaluates cognitive flexibility, set-shifting and working memory. Abnormal values provide objective documentation of cognitive impairment supporting coordinated care.

🕒 Audio P300 Delay

WNL

272 ms



249 323 353 383 398

Target range (age adjusted): 249 to 323 ms

The P300, or cognitive potential, is an event-related response elicited by stimulus recognition (oddball paradigm). Latency is an objective marker of cognitive processing speed used in cognitive screening.

📶 Audio P300 Voltage

MODERATE

4.8 uV



0 2 5 8 21

Target range (age adjusted): 8 to 21 uV

Voltage is derived from central-parietal sites CZ, C3, C4, PZ, P3 and P4. Reduced amplitude is a non-specific objective marker of decreased cognitive resource allocation used in cognitive workup and attention-related assessment.

≈ CZ Eyes Closed Theta/Beta

WNL

1.1



0.9 2.2 3.2 4.2 5.2

Target range (age adjusted): 0.9 to 2.2 ratio

Elevated theta/alpha and theta/beta power ratios are objective EEG markers associated with attention dysregulation and early cognitive slowing, used in cognitive screening and attention-related workup.

📶 Frontal Alpha Balance

WNL

1.0



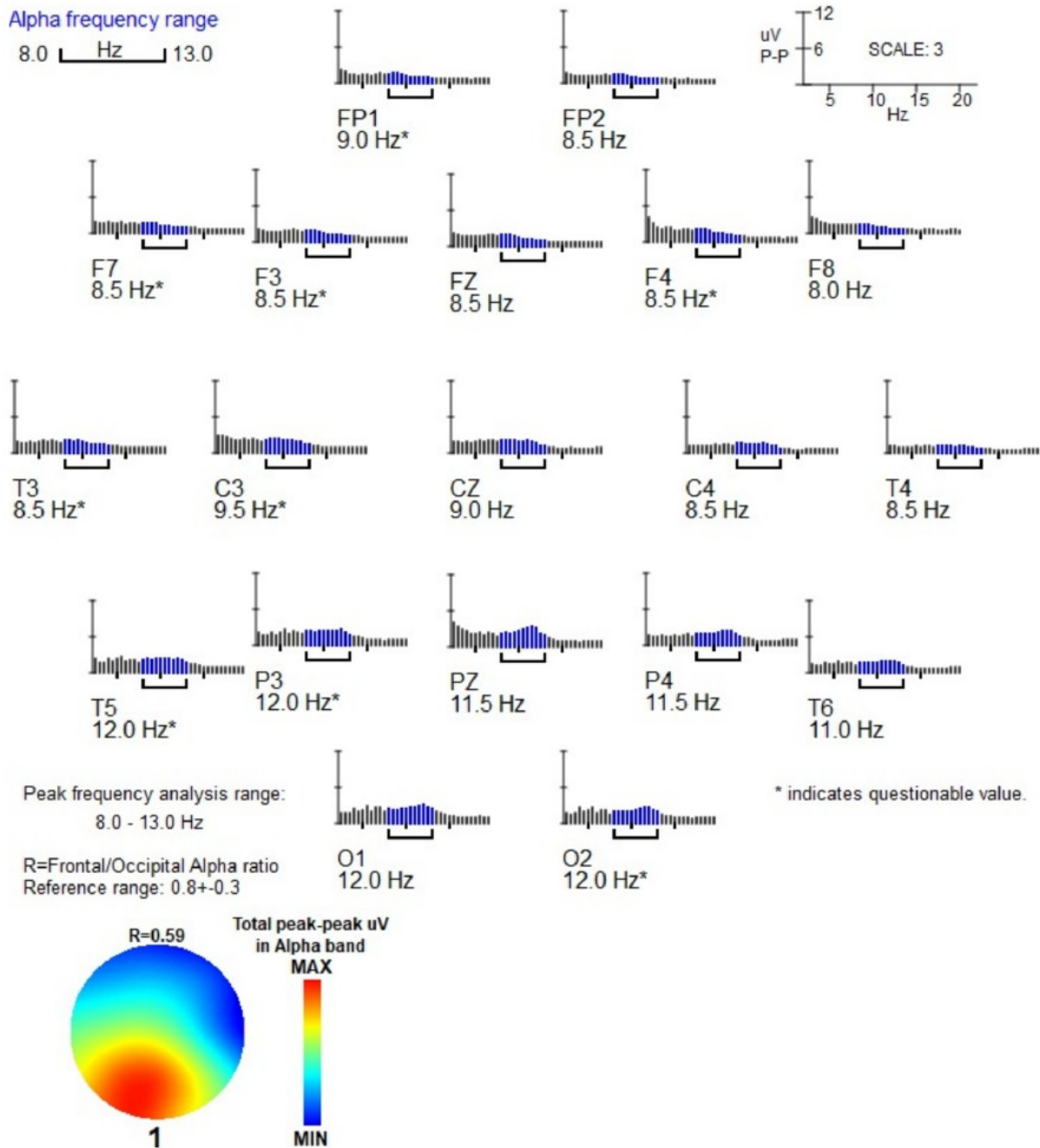
0 0.4 0.6 0.9 1.1 1.4 1.6 2.0

Target range (age adjusted): 0.9 to 1.1 ratio

A measure of frontal symmetry. Values outside the target range may indicate reduced prefrontal efficiency associated with mood dysregulation, anxiety or stress-related cognitive impact.

SECTION I Observations and Findings, continued

B. Spectrum, P300 eyes closed: the device figure



Per-electrode alpha-band spectra from the WAVi clinician report, P300 eyes closed, session 1. Peak frequency reported per site within 8.0 to 13.0 Hz; asterisk = questionable value (device flag). R = frontal/occipital alpha ratio, reference 0.8 plus or minus 0.3; the map shows total peak-to-peak alpha-band voltage.

SECTION I Observations and Findings, continued

C. Spectrum, P300 eyes closed: values

Per-channel alpha-band spectral analysis from the WAVi P300 eyes-closed acquisition (10 - 20 array). Peak frequency is reported per electrode within 8.0 to 13.0 Hz; an asterisk marks values the device flags as questionable because alpha magnitude is low relative to background EEG. The frontal/occipital alpha ratio (R) and the topographic alpha-power map are shown at right.

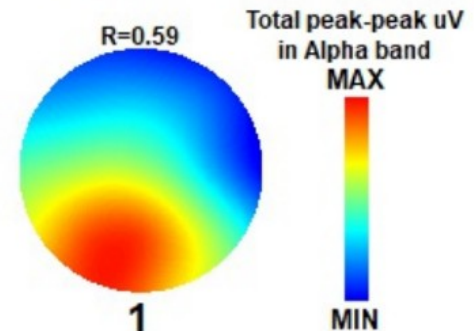
Frontal	FP1 9.0* FP2 8.5 F7 8.5* F3 8.5* FZ 8.5 F4 8.5* F8 8.0
Temporal and central	T3 8.5* C3 9.5* CZ 9.0 C4 8.5 T4 8.5
Parietal	T5 12.0* P3 12.0* PZ 11.5 P4 11.5 T6 11.0
Occipital	O1 12.0 O2 12.0*

Alpha frequency range 8.0 to 13.0 Hz. Asterisk = questionable value (device flag).

Regional peak frequency (from the clinician report)

REGION	PEAK FREQUENCY	TARGET RANGE	READ
Frontal	7.8 Hz	9.0 to 11.0 Hz	questionable value
Central-parietal	10.0 Hz	9.0 to 11.0 Hz	inside
Occipital	12.0 Hz	9.0 to 11.0 Hz	above

Peak alpha frequency ranges from 8.0 to 12.0 Hz across the array. 9 of 19 sites sit at 8.5 Hz or below (all frontal, temporal or central), 9 values are flagged questionable, and the frontal/occipital alpha ratio R = 0.59 is inside the reference range of 0.8 plus or minus 0.3.

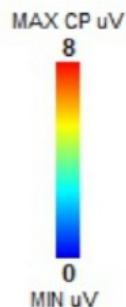
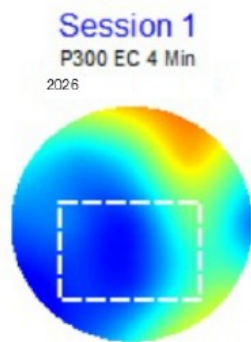


Total peak-to-peak uV in the alpha band, R = 0.59 (reference 0.8 plus or minus 0.3).

Reading note withheld in this sample

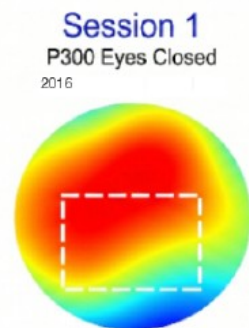
D. Brain voltage images

PATIENT



Session 1, P300 eyes closed, central-parietal region outlined. Exhibiting symptoms.

NORMAL BRAIN, EXAMPLE ONLY



Reference topography from a normal study. Voltage scales differ; read each image against its own scale.

SECTION I Conclusions and Recommendations

Conclusions

Conclusions withheld in this sample

Treatment recommendations

Treatment recommendations withheld in this sample

Marker summary

MARKER	RESULT	AGE-ADJUSTED RANGE	SEVERITY
Physical Reaction Time	420 ms	253 to 364 ms	Moderate
Trail Making Test A	67 sec	38 to 64 sec	Mild
Trail Making Test B	177 sec	43 to 84 sec	Severe
Audio P300 Delay	272 ms	249 to 323 ms	WNL
Audio P300 Voltage	4.8 uV	8 to 21 uV	Moderate
CZ Eyes Closed Theta/Beta	1.1	0.9 to 2.2 ratio	WNL
Frontal Alpha Balance	1.0	0.9 to 1.1 ratio	WNL
Raw EEG	Normal study	n/a	Normal
Spectrum R ratio	0.59	0.8 plus or minus 0.3	Inside reference

SECTION II Methods and Reference

About this report

The Cognitive Function Report is Brainwave MedTech Group's neurologist-interpreted reading of a WAVi SCAN EEG/ERP session ordered by the treating provider: seven brain-function markers against age-adjusted ranges, a routine EEG read, a signed statement and recommendations for clinical correlation. It is a supplemental tool for licensed providers, used alongside other clinical information; the treating provider remains responsible for diagnosis and treatment.

Device and clearance

ITEM	DETAIL
Device	WAVi SCAN EEG System and Accessories (WAVi Co.)
FDA 510(k)	K213900, clearance letter dated May 6, 2022; Class II, 21 CFR 882.1400 (electroencephalograph); product codes GWQ, GWJ, OLT
Intended use (510(k) summary, verbatim)	WAVi SCAN is intended for the acquisition, display, and storage, of electrical activity of a patient's brain including electroencephalograph (EEG) and event-related potentials (ERP) obtained by placing two or more electrodes on the head to aid in diagnosis.
Protocol	19-channel EEG, 10-20 placement; eyes-closed resting EEG; auditory oddball P300; physical reaction time; Trail Making Tests A and B
Reference ranges	Age-adjusted normative ranges printed with every metric; device data-yield flags (low yield, questionable value) carried into this report

Documentation for medical necessity (reference)

CRITERION	FACTUAL BASIS IN THIS REPORT
Documented complaint	History and presenting concerns are supplied by the ordering provider and are read together with this report.
Objective findings	Age-adjusted deviations are listed metric by metric in Section I with the device's own reference ranges.
Impact on care	Findings direct clinical correlation, cognitive testing, imaging and cognitive retraining (Section I, Recommendations).
Reassessment plan	A repeat EEG/ERP after treatment measures change against the same reference ranges.
Coverage	Decided by the payer. This report documents findings; it does not certify coverage or guarantee reimbursement.

Documentation elements reviewers commonly look for; coverage determinations rest with the payer. Procedure and diagnosis codes are the ordering practice's and its coder's decision and are not printed in this report.

Glossary

P300: A brainwave about 300 ms after the brain notices something unexpected. Delay (ms) is speed; voltage (uV) is strength.

Trail Making B: Alternates numbers and letters (1-A-2-B). Cognitive flexibility and executive function, in seconds.

Frontal alpha balance: Symmetry of left and right frontal activity. Imbalance is associated with mood and anxiety patterns.

Low yield: Too few clean responses for a fully reliable value; the device marks these.

Trail Making A: Timed task connecting numbered circles in order. Visual search speed and attention, in seconds.

Theta/beta ratio: Slow versus fast brainwaves at CZ. Higher ratios are associated with attention difficulties.

WNL: Within normal limits: inside the expected range for age and sex.

Age adjusted: Compared with people of the same age and sex in the normative database.

Notices

Professional scope: this report provides objective neurophysiological data to support clinical decision-making by qualified medical professionals. It does not establish a physician-patient relationship, provide a definitive diagnosis or create treatment recommendations independent of the treating physician's judgment. All findings should be interpreted within the patient's complete history, examination and other studies.

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